


## Title II WEB ACCESSIBILITY WCAG 2.1 LEVEL AA DISCLAIMER

Disclaimer: This content is archived web content, created **before** the new Title II web accessibility rule effective date of April 2026. This content is not required to meet WCAG 2.1 level AA standards. This content is kept for reference, research, or recordkeeping purposes, is kept under an archived content section, and will not be updated or used for access or participation. Maricopa Community Colleges will provide an accessible version upon request.

# Scottsdale Community College

## Course Catalog Archive

## 2023-2024

This document is an archival record of the course catalog for the 2023-2024 academic year as of August 2023. It is a printable option of the online course catalog for accreditation organizations, agencies and college offices for data collection, evaluation purposes and referencing.

All courses are subject to change throughout the catalog year. Current course information, including descriptions, outlines, competencies, and credits can be found on the following website, which is the official repository for all MCCCD credit courses:

**Center for Curriculum and Transfer Articulation**
https://curriculum.maricopa.edu/course

SCOTTSDALE COMMUNITY COLLEGE
A MARICOPA COMMUNITY COLLEGE

The Maricopa County Community College District (MCCCD) is an EEO/AA institution and an equal opportunity employer of protected veterans and individuals with disabilities. All qualified applicants will receive consideration for employment without regard to race, color, religion, sex, sexual orientation, gender identity, age, or national origin. A lack of English language skills will not be a barrier to admission and participation in the career and technical education programs of the District.

The Maricopa County Community College District does not discriminate on the basis of race, color, national origin, sex, disability or age in its programs or activities. For Title IX/504 concerns, call the following number to reach the appointed coordinator: (480) 731-8499. For additional information, as well as a listing of all coordinators within the Maricopa College system, visit www.maricopa.edu/non-discrimination.

# Maricopa Community Colleges' Course Subjects

## Comprehensive List of Active Subjects for Credit Curriculum

| Subject | Formal Subject Description |
|---|---|
| AAA | Advancing Academic Achievement |
| ABA | Arizona Builders Alliance |
| ABC | Associated Builders and Contractors |
| ABS | Applied Biological Sciences |
| ACC | Accounting |
| ACT | Aircraft Construction Technologies |
| AEN | Alternative Energy |
| AES | Aerospace Studies |
| AET | Aeronautics |
| AFR | African American Studies |
| AGB | Agribusiness |
| AGL | Agricultural Landscape |
| AGS | Agricultural Science |
| AHU | Arabic Humanities |
| AIM | Artificial Intelligence and Machine Learning |
| AIR | Airline Operations |
| AIS | American Indian Studies |
| AIT | Automated Industrial Technology |
| AJS | Administration of Justice Studies |
| ALT | Academic Literacy |
| AMS | Automated Manufacturing Systems |
| AMT | Aircraft Maintenance Technology |
| APT | Automotive Performance Technology |
| ARB | Arabic |
| ARC | Architecture |
| ARH | Art Humanities |
| ART | Art |
| ASB | Anthropology |
| ASD | Addictions and Substance Use Disorders |
| ASE | Automotive Service |
| ASL | American Sign Language |
| ASM | Anthropology |
| AST | Astronomy |
| ATC | Air Traffic Controllers |
| ATP | Automation Technology |
| AUT | Automotive Technology |
| AVC | Art and Visual Communication |
| AVT | Avionics Technology |
| BAW | Beauty and Wellness |

| | |
|---|---|
| BHS | Behavioral Health Services Technology |
| BIO | Biology |
| BKL | Bricklaying: Apprenticeship |
| BLT | Building Safety and Construction Technology |
| BME | Biomedical Equipment Technology |
| BPC | Business-Personal Computers |
| CAD | Computer-Aided Drafting |
| CAN | Cannabis Business |
| CAP | Counseling and Applied Psychology |
| CCS | Chicana and Chicano Studies |
| CET | Corporate Computer Technology |
| CDA | Clinical Dental Assisting |
| CDH | Community Dental Health |
| CET | Civil Engineering Technology |
| CFS | Child/Family Studies |
| CHA | Community Health Advocate |
| CHI | Chinese |
| CHM | Chemistry |
| CIA | Crime and Intelligence Analysis |
| CIS | Computer Information Systems |
| CLD | Cloud Computing |
| CNS | Construction |
| CNT | Cisco Network Technology |
| COM | Communication |
| CON | Construction |
| COV | Covey |
| CPD | Counseling and Personal Development |
| CRA | Clinical Research Associate |
| CRC | Clinical Research Coordinating |
| CRE | Critical Reading |
| CRP | Carpentry: Apprenticeship |
| CRW | Creative Writing |
| CSC | Computer Science |
| CSI | Credit Services Industry |
| CSM | Customer Service Management |
| CSR | Customer Service Representative |
| CTE | Career and Technical Education |
| CTR | Court Reporting |
| CTT | Caterpillar Technician Training |
| CUL | Culinary Arts |
| CWE | Career Work Experience |
| DAE | Dental Assisting Education |
| DAH | Dance Humanities |
| DAN | Dance |

| | |
|---|---|
| DFT | Drafting Technology |
| DHE | Dental Hygiene Education |
| DIE | Diesel/Heavy Equipment Technology |
| DMI | Diagnostic Medical Imaging |
| DMS | Diagnostic Medical Sonography |
| ECE | Engineering Science |
| ECH | Early Childhood Education |
| ECN | Economics |
| EDA | Education of Adult Learners |
| EDT | Endoscopy |
| EDU | Education |
| EEC | Endorsement for Early Childhood |
| EED | Early Education |
| EEE | Electrical Engineering |
| EEG | Electroneurodiagnostic Technology |
| EEP | Early Education Professions |
| EFE | Education Field Experiences |
| ELA | Electrician: Apprenticeship |
| ELC | Electricity |
| ELE | Electronic |
| ELN | eLearning |
| ELT | Electronics Technology |
| EMT | Emergency Medical Technology |
| ENG | English |
| ENH | English Humanities |
| ENV | Environmental Sciences |
| EPD | Education Professional Development |
| EPS | Entrepreneurial Studies |
| EQS | Equine Science |
| ESL | English as a Second Language |
| ETH | Ethnic Studies |
| ETL | Excellence/Teaching/Learning |
| EUT | Electric Utility Technology |
| EXS | Exercise Science |
| FAC | Facilities Management |
| FCS | Family and Consumer Science |
| FLA | Foreign Language Acquisition |
| FMP | Film and Media Production *(first effective term Fall 2020; formerly VPT Video Production Technology)* |
| FMT | Film, Media, and Theatre |
| FON | Food and Nutrition |
| FOR | Forensic Science |
| FRE | French |
| FSC | Fire Science Technology |
| FST | Food Science and Technology |

| | |
|---|---|
| FYE | First Year Experience |
| GBS | General Business |
| GCU | Cultural Geography |
| GER | German |
| GIS | Geographic Information Science |
| GLG | Geology |
| GPH | Physical Geography |
| GRK | Greek |
| GST | Game Studies |
| GTC | General Technology |
| HBR | Hebrew |
| HCC | Health Core Curriculum |
| HCE | Health Care Education |
| HCR | Health Care Related |
| HCS | Hospital Central Service |
| HES | Health Science |
| HFA | Heat and Frost Technology |
| HIM | Health Information Management |
| HIS | History |
| HON | Honors |
| HRC | Healthcare Regulatory Compliance |
| HRM | Hotel Restaurant Management |
| HSE | Health Sciences Education |
| HSM | Health Service Management |
| HST | Histologic Technology |
| HTM | Healthcare Technology Management |
| HUM | Humanities |
| HVA | Heating, Ventilating and Air Conditioning |
| HWC | Health and Wellness Coaching |
| IBS | International Business |
| ICE | Imaging Continuing Education |
| IEC | Independent Electrical Contractors |
| IFS | Information Studies |
| IGS | Integrated Studies |
| IMC | Interstate Mechanical Contractors |
| IND | Industry |
| INS | Insurance Studies |
| INT | Interior Design |
| IPH | Integrated Public Health |
| IPP | Interpreter Preparation Program |
| IRW | Ironworking: Apprenticeship |
| ITA | Italian |
| ITD | Infant/Toddler Development |
| ITH | Italian Humanities |

| | |
|---|---|
| ITS | Information Technology Security |
| JPH | Japanese Humanities |
| JPN | Japanese |
| JRN | Journalism |
| LAS | Paralegal Studies |
| LAT | Latin |
| LBA | Laboratory Assisting |
| LDR | Leadership |
| LET | Law Enforcement Technology |
| MAS | Medical Assisting |
| MAT | Mathematics |
| MCO | Mass Communications |
| MDL | Medical Laboratory Science |
| MEC | Mechanical Apprenticeship |
| MGT | Management |
| MHL | Music: History/Literature |
| MIS | Military Science |
| MIT | Manufacturing Industrial Technology |
| MKT | Marketing |
| MMT | Multimedia Technology |
| MNT | Micro and Nano Technology |
| MPT | Manufacturing Production Technology |
| MRT | Medical Radiography/Radiologic Technology |
| MSP | Mortuary Science Program |
| MST | Microsoft Technology |
| MTC | Music: Theory/Composition |
| MUC | Music: Commercial/Business |
| MUE | Music: Education |
| MUP | Music: Performance |
| MWR | Millwright: Apprenticeship |
| NAV | Navajo |
| NCE | Nursing: Continuing Education |
| NET | Networking Technology |
| NMS | New Media Studies |
| NUC | Nuclear Medicine Technology |
| NUR | Nursing Science: Basic |
| NVH | Navajo Humanities |
| OAS | Office Automation Systems |
| OPT | Optical Systems |
| OSH | Occupational Safety and Health |
| OTA | Occupational Therapy Assistant |
| PAD | Public Administration |
| PAR | Paralegal Studies |
| PED | Physical Education |

| | |
|---|---|
| PHI | Philosophy |
| PHS | Physical Science |
| PHT | Pharmacy Technology |
| PHY | Physics |
| PIM | Pima |
| PLB | Phlebotomy |
| PME | Paramedicine |
| PNT | Painting/Decorating: Apprenticeship |
| PON | PeriOperative Nursing |
| POR | Portuguese |
| POS | Political Science |
| PPT | Power Plant Technology |
| PSA | Public Safety Administration |
| PSG | Polysomnographic Technology |
| PSY | Psychology |
| PTA | Physical Therapy Assisting |
| QCT | Quality Control Technology |
| QST | Queer Studies |
| RAD | Radiologic Technology |
| RBT | Robotics Technology |
| RDG | Reading |
| REA | Real Estate |
| REC | Recreation |
| REL | Religious Studies |
| RES | Respiratory Care |
| RPM | Recreation Program Management |
| RUS | Russian |
| RVT | Recreational Vehicle Technology |
| SBS | Small Business Management |
| SBU | Society and Business |
| SCT | Sustainability Career and Technical |
| SEM | Secondary Basic Emergency Medical Technology |
| SFS | Secondary Fire Science Technology |
| SGT | Surgical Technology |
| SLC | Studies in Language and Culture |
| SLP | Speech Language Pathology |
| SOC | Sociology |
| SPA | Spanish |
| SPE | Special Education |
| SPH | Spanish Humanities |
| SPT | Sports |
| SSH | Sustainability/Social Sciences and Humanities |
| STO | Storytelling |
| SUN | SundtCorp |

| | |
|---|---|
| SUS | Sustainability/Natural Sciences |
| SWU | Social Work |
| TDR | Trade Related |
| TEC | Textiles and Clothing |
| THE | Theatre |
| THF | Theatre and Film |
| THO | Theatre Occupational |
| THP | Theatre Performance/Production |
| TLT | Telecommunications Technology |
| TQM | Total Quality Management |
| TRS | Translation and Interpretation |
| UAS | Unmanned Aircraft Systems |
| UCS | Utilities Customer Service |
| UTP | Utilities Technology Partnerships |
| VET | Veterinary Technology |
| WAC | Writing Across Curriculum |
| WED | Wellness Education |
| WFR | Workforce Re-Entry |
| WKO | Work Orientation |
| WLD | Welding Technology |
| WRT | Water Resource Technology |
| WST | Women's Studies |
| YAQ | Yaqui Indian History and Culture |
| YOG | Yoga |

# Special Course Types

## Cooperative Education Courses

Cooperative Education courses combine classroom theory with supervised work experience. Students have the opportunity to earn college credit or planned growth in a job that is related to their career goals. A joint agreement is set up among the employer, the college and the student to facilitate the process. At Scottsdale Community College, Cooperative Education is available to students in nearly every discipline and is required in certain occupational programs. Students meet with the program director meets with students to determine their eligibility and assists students to locate suitable positions which relate to their field of study. A student's present job may also qualify. Each student is assigned to a faculty-coordinator who monitors the student's progress by making on-site visits to the place of employment.

### Qualifications for participation include:

1. Completion of at least 12 college credits.
2. At least a 2.6 Grade Point Average (GPA)
3. Current enrollment in at least one class related to the student's major field of study.
4. Obtain a position that directly relates to the student's academic and career goals if current job does not meet this requirement.
5. Must have authorization to work in the U.S.

### Determination of College Credit

1. Completion of a minimum of 80 hours of work per semester for each credit to be earned, with a maximum of four (4) credit hours per semester. A student may accumulate a total of six (6) credit hours. However, the number of credits which can be applied toward a degree may be limited by individual departmental requirements.
2. Successful achievement of one learning objective for each credit to be earned.
3. Completion of Final Report, Employer Evaluation of Student Performance and documentation of completed learning objectives.
4. Students receive a letter grade for the Cooperative Education experience. The grade is based on specific criteria and is awarded by the faculty-coordinator to whom the student is assigned.

### Application Process

For information on the application process, students must contact the SCC academic department of the course prefix/subject in which they wish to receive credit. The prefix for the credits for which the student registers is determined by the academic department (see example below):

| | | | |
|---|---|---|---|
| **XXX296WC** | **Cooperative Education** | **1 credit** | **5 periods** |
| **XXX296WC** | **Cooperative Education** | **2 credits** | **10 periods** |
| **XXX296WC** | **Cooperative Education** | **3 credits** | **15 periods** |

Tuition for the Cooperative Education credits is the same as for other academic credits.

### Veterans and Financial Aid Benefits

Veterans and financial aid recipients must also have written departmental approval for any courses not listed as electives or core courses within a specific program. Failure to do so may result in a pro rata reduction in financial assistance.

## Internship Courses

An approved organization for SCC students will host an intern working to complete the agreed upon learning objectives. A Faculty Advisor will assist the student, ensuring a quality paid experience and partner with the site to complete purposeful learning and working objectives. The experience should be approved by an SCC Faculty Advisor, intentional and serve to enhance a student's academic, career, and personal development through mentoring. SCC students will register for the internship course at the beginning of the semester (80 hours = 1 credit, 160 hours = 2 credits, 240 hours= 3 credits). To learn more about an internship, please contact: Mollie Sutherland, Internship Coordinator, 480-423-6138, internships@scottsdalecc.edu.

## Special Project Courses

Special projects are available in a variety of disciplines and provides opportunities for individualized learning experiences for students. The prefix for the credits for which the student registers is determined by the academic department (see example below):

| | | | |
|---|---|---|---|
| **XXX298AA** | **Special Projects** | **1 credit** | **1 period** |
| **XXX298AB** | **Special Projects** | **2 credits** | **2 periods** |
| **XXX298AC** | **Special Projects** | **3 credits** | **3 periods** |

Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment are made available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development.

## Special Topics Courses

These courses provide a flexible option for a discipline to offer classes on a variety of different contemporary and/or special interest topics that are beyond the scope of current offerings. Special Topics courses may provide continuing education/professional development opportunities for students and professionals in the field. The different credit variants allow faculty to select a course with contact hours appropriate to the breadth and depth of the selected topic. The prefix for the credits for which the student registers is determined by the academic department (see example below):

| | | | |
|---|---|---|---|
| **XXX294AA** | **Special Topics** | **1 credit** | **1 period** |
| **XXX294AB** | **Special Topics** | **2 credits** | **2 periods** |
| **XXX294AC** | **Special Topics** | **3 credits** | **3 periods** |

## Volunteerism: Service Learning Courses

Service-learning courses afford opportunities for students to apply classroom learning to real life situations while addressing needs of local agencies in a volunteer capacity. These experiences create context and relevance for students' programs of study as well as fostering problem-solving skills and effective teamwork. They provide opportunities for civic engagement, character evolution and increased awareness of their community. The prefix for the credits for which the student registers is determined by the academic department (see example below):

| | | | |
|---|---|---|---|
| **XXX282AA** | **Volunteerism: Service Learning** | **1 credit** | **1 period** |
| **XXX282AB** | **Volunteerism: Service Learning** | **2 credits** | **2 periods** |
| **XXX282AC** | **Volunteerism: Service Learning** | **3 credits** | **3 periods** |

SCC's Office of Service-learning & Leadership facilitates opportunities for students to connect classroom instruction with real-world experience through service-learning and leadership lessons. Students will develop as more engaged and aware citizens by addressing our local and global community needs. Students, faculty and community members can access more information at the Office of Student Experience & Leadership website. Call 480.423.6545 or email seal@scottsdalecc.edu.

# Learning Modalities

Scottsdale Community College offers a wide variety of classes in many subjects and also provides a choice of different levels, formats, and types of classes to fit your schedule and learning style. eLearning options available for SCC students include: online, hybrid and web-enhanced face-to-face classes.

## In-Person

Face-to-face course instruction is provided at a specific location on a specific day and time. Class may also be web-enhanced in which learning outside of class uses Canvas, Maricopa Open Educational Resource Learning System (MOER), or other online tools

## Hybrid

Course content is delivered at a specific location on a specific day and time (as with in-person classes), and part of the course is also completed online without a set time to attend. This mixed format offers a combination of face-to-face classroom meetings and the opportunity to work independently.

## Live Online

Course content is delivered at a specific location on a specific day and time (as with in-person classes), and part of the course is also completed online. (**Synchronous - At scheduled times)**

## Online

Course content is delivered entirely online and is accessed through a learning management system without a set time to attend. Students should have independent access to the Internet. In-person testing may be required. (**Asynchronous - Not at scheduled times)**

## Field Based

Course content is delivered in person at a location relevant to the course content (e.g., hospital, hiking trail, etc.); student is physically present and typically receives hands-on instruction.

## Independent Study

Course content is delivered individually between instructor and student, and coursework is completed independently by student, typically in a self-paced format, checking in with instructor periodically as necessary to fulfill course competencies.

## Private Instruction

Course content is delivered individually between instructor and student consisting of one-on-one meetings at set dates, times, and locations; normally, student is physically present and typically receives hands-on instruction (e.g. musical instrument instruction, voice instruction).

| Course | Effective Term | Course Title | Cross References | Description | Requisite | Course Note | Subject Type | Credits Periods Load | Load Formula |
|---|---|---|---|---|---|---|---|---|---|
| AAA104 | 2013 Spring | Visualization in Activated Learning | | Techniques for using mental imagery in the activated learning process. Processes include mental rehearsal, relaxation, and affirmation during self-instruction, test taking, interpersonal relationships, and sports | Prerequisites: None. | | Acad | LEC 1.0 1.0 1.0 | S |
| AAA105 | 2013 Spring | Peak Performance in Activated Learning | | Techniques which enable the individual to achieve levels of peak performance using the activated learning process. Includes methods for developing a high level of motivation and self-discipline to achieve peak performance in areas such as sports, public speaking, and job productivity | Prerequisites: None. | | Acad | LEC 1.0 1.0 1.0 | S |
| AAA115 | 2007 Fall | Creating College Success | CPD115 | Strategies to create success in college. Methods for selecting and developing effective academic strategies, increasing self-awareness and developing self-management strategies. Elements of college resources and relationships with others explored in support of students' educational experience | Prerequisites: None. | | Acad | LEC 1.0 1.0 1.0 | S |
| AAA150 | 2017 Spring | Strategies for College Success | CPD150 | Focus on increasing student success through college orientation and personal growth, study skills development, and educational and career planning. | Prerequisites: None. | | Acad | LEC 3.0 3.0 3.0 | S |
| AAA150AC | 2019 Fall | Educational and Career Planning | CPD150AC | Emphasis on increasing student success through educational and career planning. | Prerequisites: None. | | Acad | LEC 1.0 1.0 1.0 | S |
| AAA298AA | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured | Prerequisites: Permission of Program Director or Instructor. | Course Attribute(s): COMMON COMPETENCY COURSE | Acad | LAB 1.0 1.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment are made available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. | | | | | |
| AAA298AB | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment are made available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. | Prerequisites: Permission of Program Director or Instructor. | Course Attribute(s): COMMON COMPETENCY COURSE | Acad | LAB 2.0 2.0 0.0 | Z |
| AAA298AC | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment are made available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. | Prerequisites: Permission of Program Director or Instructor. | Course Attribute(s): COMMON COMPETENCY COURSE | Acad | LAB 3.0 3.0 0.0 | Z |
| ABA101 | 2018 Fall | Hand and Power Tools | | Selection, use, maintenance and safety procedures for common hand and power | Prerequisites: Registered apprentice status or permission of | | | L+L 1.0 1.0 1.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | tools used in the construction industry. | the Apprenticeship Coordinator. | | | | |
| ABA102 | 2004 Fall | Electrical Fundamentals | | Fundamentals of electricity including electrical hazards, Occupational Safety and Health Administration (OSHA) regulations, units of measurements and using Ohm's law. Circuit characteristics and the use of Kirchoff's voltage and current laws to calculate voltage drop, current and resistance. Operation and use of specific meters. Includes an introduction to the National Electrical Code (NEC) | Prerequisites: None. | | Occ | LEC 1.0 1.0 1.0 | S |
| ABA103 | 2004 Fall | Hand Bending of Electrical Conduit | | Conduit bending and installation. Techniques for using hand operated and step conduit benders. Cutting, reaming and threading conduit | Prerequisites: None. | | Occ | LEC 0.5 0.5 0.5 | S |
| ABA104 | 2003 Summer I | Raceways, Boxes, Fittings, Anchors/Supports | | Types and applications of conduit, raceways, wireways and ducts. Types, applications and wiring techniques for conductors. Hardware and systems used to mount and support boxes, receptacles and other electrical components | Prerequisites: Registered Apprentice status or permission of the Apprenticeship Coordinator. | | Occ | LEC 1.5 1.5 1.5 | S |
| ABA106 | 2012 Spring | Introduction to Materials Handling | | Introduction to materials handling equipment and appropriate use for common job-site tasks. Recognize hazards associated with materials handling and proper techniques and procedures. | Prerequisites: Registered apprentice status or permission of the Apprenticeship Coordinator. | | Occ | LEC 0.5 0.5 0.5 | S |
| ABA112 | 2018 Fall | Electrical I | | Theories and concepts in electrical safety basics and OSHA 10 certification. Introductory concepts in construction math, hand and power tools, drawings, rigging, and materials handling. | Prerequisites: Registered apprenticeship status or permission of Apprenticeship Coordinator. | | Occ | L+L 6.0 6.0 6.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Emphasis on communication and employability skills. | | | | | |
| ABA114 | 2018 Fall | Electrical II | | Fundamentals of the electrical trade, residential electrical services and test equipment. Emphasis on safety, electrical circuits, theory, National Electrical Code, device boxes. Use and selection of hand bending, raceways, fittings, conductors, cables. Interpretation of electrical drawings. | Prerequisites: Registered apprenticeship status or permission of Apprenticeship Coordinator. | | Occ | L+L 6.0 6.0 6.0 | T |
| ABA120 | 2005 Spring | Carpentry Fundamentals | | Overview of the carpentry trade. Apprenticeship programs and responsibilities of the apprentice. Types and uses of nails, fasteners and adhesives. Types of wood, lumber and manufactured wood products | Prerequisites: Registered apprentice status or permission of the Apprenticeship Coordinator. | | Occ | LEC 1.0 1.0 1.0 | S |
| ABA121 | 2005 Spring | Floor and Wall Systems | | Framing systems, floor construction, center beam and post support systems. Construction of sills, joists and bridging. Subflooring, mechanical connectors and the use of prefabricated joists. Wall construction, stud walls, panelized walls, masonry walls, post and beam walls, use of metal studs and drywall construction. | Prerequisites: (Registered apprentice status and a grade of C or better in ABA120) or permission of the Apprenticeship Coordinator. | | Occ | LEC 2.0 2.0 2.0 | S |
| ABA122 | 2018 Fall | Electrical III | | Theory and application of alternating current, lighting, conduit bending, pull and junction boxes. | Prerequisites: Registered apprenticeship status or permission of Apprenticeship Coordinator. | | Occ | L+L 6.0 6.0 6.0 | T |
| ABA124 | 2018 Fall | Electrical IV | | Principles of conductor installations, cable trays, conductor terminations and splices. Emphasis on grounding, bonding, circuit breakers, and fuses. | Prerequisites: Registered apprenticeship status or permission of Apprenticeship Coordinator. | | Occ | L+L 6.0 6.0 6.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Fundamental concepts of control systems. | | | | | |
| ABA130 | 2003 Summer I | Installation of Electric Services | | Electric services for commercial and industrial installations. Blueprints, diagrams and electrical calculations. Grounding, connecting three phase services and the installation of panelboards, switches and load centers | Prerequisites: Registered apprentice status or permission of the Apprenticeship Coordinator. | | Occ | LEC 1.0 1.0 1.0 | S |
| ABA135 | 2010 Spring | Cast-In-Place Stairs | | Cast-In-Place and Precast stair installation techniques, forming, erecting and safety procedures. Review American Concrete Institute (ACI) Codes and standard specifications. | Prerequisites: Registered apprenticeship status or permission of Apprenticeship Coordinator. | | Occ | LEC 1.0 1.0 1.0 | S |
| ABA136 | 2010 Spring | Communications in Construction | IND136 | Communication in the construction industry. Positive direct communication, written communication, active listening, understanding, negotiation, and dealing with difficult people. Communication skills at all organizational levels, with groups, combining oral and written communication for maximum effectiveness. | Prerequisites: None. | | Occ | LEC 1.0 1.0 1.0 | S |
| ABA150 | 2004 Spring | Advanced Calculations for Electricians | | Advanced mathematical calculations in the electrical industry. Powers and roots in watts, voltage, current and resistance. Metric and engineering units. English and metric systems for length, area, volume and mass, and energy and temperature measurements. Ratios, proportions, formulas, symbols and representation. Trigonometry and the Pythagorean theory. Plane and rotating vectors. Basic | Prerequisites: Registered apprentice status or permission of the Apprenticeship Coordinator. | | Occ | LEC 1.5 1.5 1.5 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | functions of the scientific calculator for electricians | | | | | |
| ABA179 | 2009 Spring | Installing and Sizing Water Supply Piping | | Connecting piping to a water main. Plumbing connections to buildings and air and hydrostatic testing of water supply piping. Operation and installation of water heaters. Types, operation and installation of water meters. Installation of water supply systems to given structures. Effects of valves, fittings and piping on water pressure. Calculations of pressure drop and sizing procedures for water supply piping. Principles of back siphonage and backflow prevention | Prerequisites: Registered apprentice status or permission of the Apprenticeship Coordinator. | | Occ | LEC 3.0 3.0 3.0 | S |
| ABA192 | 2018 Fall | Plumbing Level I | | History of plumbing, modern plumbing, safety, human relations, and construction career opportunities. Hand and power tool safety, use, and maintenance. Plumbing drawings, components, and symbols. Materials, schedules for plastic, copper, and cast-iron. Fittings, valves, hangers, and supports. Measuring, cutting, reaming, and joining pipe. Safety precautions for installation, operation and maintenance. Fixtures and faucets. Drain, waste, and vent systems. Water distribution systems. | Prerequisites: None. | | Occ | L+L 3.0 3.0 3.0 | T |
| ABA204 | 1999 Fall | Contactors and Relays | | Operating principals of contactors and relays. Function in an electrical system. Operation and installation of specific contactors and relays. Interpretation of wiring diagrams. Connect and test a simple control circuit | Prerequisites: None. | | Occ | LEC 1.0 1.0 1.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| ABA207 | 2010 Spring | Construction Trades: Green Environment | | Daily activities at work and at home that affect green environment. Leadership in Energy and Environmental Design (LEED) rating process. Carbon footprint and ways to reduce it. Construction of buildings that affect green environment. Application of principles of green building rating system. | Prerequisites: Registered apprenticeship status or permission of Apprenticeship Coordinator. | | Occ | LEC 1.0 1.0 1.0 | S |
| ABA222 | 2018 Fall | Introduction to Welding, Brazing and Cutting | | Arc welding theory and safety hazards. AC, DC and AC-DC welding machines. Use of electrodes and safety requirements for arc-welding. Basic welding techniques and gas metal-arc and gas tungsten-arc welding processes. Brazing and cutting using an oxyacetylene torch. | Prerequisites: Registered apprentice status or permission of the Apprenticeship Coordinator. | | Occ | L+L 2.0 3.0 3.0 | T |
| ABA232 | 2018 Fall | Electrical V | | The course content includes Load Calculations - Branch and Feeder Circuits, Conductor Selection and Calculations, Overcurrent Protection, Raceways/Wiring/Devices and Boxes, Voice/Data and Video. | Prerequisites: Registered apprenticeship status or permission of Apprenticeship Coordinator. | | Occ | L+L 6.0 6.0 6.0 | T |
| ABA234 | 2018 Fall | Electrical VI | | Theories and concepts in distribution equipment, transformers, and commercial electrical services. Emphasis on motor calculations and voice/data and video. Operation of motor controls. | Prerequisites: Registered apprenticeship status or permission of Apprenticeship Coordinator. | | Occ | L+L 6.0 6.0 6.0 | T |
| ABA242 | 2018 Fall | Electrical VII | | Principles of course load calculations, feeder and services and specialty transformers. Selection of standby and emergency systems. Emphasis on basic electronic theory, fire alarm systems and health care facilities. | Prerequisites: Registered apprenticeship status or permission of Apprenticeship Coordinator. | | Occ | L+L 6.0 6.0 6.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| ABA244 | 2018 Fall | Electrical VIII | | Principles of heating, ventilation, and air conditioning (HVAC) controls and heat tracing. Use and control of freeze protection. Basics in motor operation and maintenance. Focus on medium-voltage terminations/splices and special locations. Fundamentals of Crew Leadership. | Prerequisites: Registered apprenticeship status or permission of Apprenticeship Coordinator. | | Occ | L+L 6.0 6.0 6.0 | T |
| ABA251 | 2003 Summer I | High Voltage Termination and Splicing | | Terminations and splices in high voltage systems (600+ volts). Identifying and splicing specific types of cables and making terminations. Includes using splicing kits and following manufacturer's specifications. Testing techniques and calculations | Prerequisites: Registered apprentice status or permission of the Apprenticeship Coordinator. | | Occ | LEC 1.0 1.0 1.0 | S |
| ABA255 | 2004 Fall | Commercial, Industrial and Special Lighting | | Operating characteristics of incandescent, fluorescent and high intensity discharge lamps. Lighting controls and fixture installations. Blueprint reading exercise for commercial and industrial installations. Lighting requirement calculations. National Electrical Code (NEC) requirements for specialty lighting fixtures | Prerequisites: Registered apprentice status or permission of the Apprenticeship Coordinator. | | Occ | LEC 0.5 0.5 0.5 | S |
| ABA298AA | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be | Prerequisites: Permission of Program Director or Instructor. | Course Attribute(s): COMMON COMPETENCY COURSE | Occ | LAB 1.0 1.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | combined to maximize student development. | | | | | |
| ABA298AB | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. | Prerequisites: Permission of Program Director or Instructor. | Course Attribute(s): COMMON COMPETENCY COURSE | Occ | LAB 2.0 2.0 0.0 | Z |
| ABA298AC | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. | Prerequisites: Permission of Program Director or Instructor. | Course Attribute(s): COMMON COMPETENCY COURSE | Occ | LAB 3.0 3.0 0.0 | Z |
| ABC118 | 2018 Fall | OSHA Standards and Regulations | PNT118 | Provisions of and implementation of Occupational Safety and Health Administration (OSHA) Act in the work place. Rights and responsibilities under the OSHA Act. Appeals process, record keeping, and voluntary protection programs. OSHA's construction and general industry standards. Overview of the requirements of the more frequently referenced standards. | Prerequisites: Registered apprentice status or permission of the Apprenticeship Coordinator. | | Occ | L+L 1.5 1.5 1.5 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| ABC119 | 2003 Spring | Basic Safety | MEC119 | Overview of safety rules and procedures for working on construction job sites | Prerequisites: Registered apprentice status or permission of the Apprenticeship Coordinator. | | Occ | LEC 1.0 1.0 1.0 | S |
| ABC120 | 2020 Fall | Basic Calculations for Construction | MEC120 PNT120 | Addition, subtraction, multiplication and division of whole, decimal, fraction and metric numbers. Percentage and fraction conversions. Metric units of length, weight, volume and temperature. Metric system as it relates to the construction trade. Basic algebra and geometry operations and equations. Area and volume calculations of shapes. | Prerequisites: None. | | Occ | L+L 1.5 1.5 1.5 | T |
| ABC121 | 2014 Fall | Introduction to Hand and Power Tools | MEC121 PNT121 | Overview of the use, maintenance and safety procedures for common hand and power tools. | Prerequisites: Registered apprentice status or permission of the Apprenticeship Coordinator. | | Occ | LEC 1.0 1.0 1.0 | S |
| ABC122 | 2022 Fall | Rigging Safety and Equipment | MEC122 | Rigging safety, equipment and inspection. Includes crane hand signals, common rope knots, types of derricks and cranes and safety procedures for rigging and moving materials and equipment. | Prerequisites: Registered apprentice status or permission of the Apprenticeship Coordinator. | | Occ | LEC 1.0 1.0 1.0 | S |
| ABC123 | 2018 Fall | Introduction to Construction Drawings | | Basic concepts of construction drawings, including terms and symbols. Drawing interpretation, use of drawing dimensions and recognition of drawing classifications. | Prerequisites: Registered apprentice status or permission of the Apprenticeship Coordinator. | | Occ | L+L 0.5 0.5 0.5 | T |
| ABC124 | 2003 Summer I | Conduit Bending | | Types of conduit benders and bends. Conduit bending procedures and use of bends in conduit systems | Prerequisites: Registered apprentice status or permission of the Apprenticeship Coordinator. | | Occ | LEC 1.0 1.0 1.0 | S |
| ABC126 | 2009 Spring | Electrical Test Equipment | | Selection, inspection, use and maintenance of common electrical test equipment | Prerequisites: Registered apprentice status or permission of the Apprenticeship Coordinator. | | Occ | LEC 1.0 1.0 1.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| ABC130 | 2018 Fall | Conductor Installation/Termination | | Transportation, storage and setup of cable reels, methods of rigging and procedures for installing conductors using cable pulls in raceways and cable trays. Also methods of terminating and splicing conductors | Prerequisites: Registered apprentice status or permission of the Apprenticeship Coordinator. | | Occ | L+L 1.0 1.0 1.0 | T |
| ABC131 | 2018 Fall | Cable Tray Installation | | National Electrical Manufacturer's Association (NEMA) and National Electrical Code (NEC) requirements for cable tray modified installation and cable installation procedures. | Prerequisites: Registered apprentice status or permission of the Apprenticeship Coordinator. | | Occ | L+L 0.5 0.5 0.5 | T |
| ABC132 | 2018 Fall | Circuit Breakers and Fuses | | National Electrical Code (NEC) requirements, Ground Fault Circuit Interrupters (GFCI), overcurrents, fuse sizing, safety techniques and short-circuit calculations. | Prerequisites: Registered apprentice status or permission of the Apprenticeship Coordinator. | | Occ | L+L 1.0 1.0 1.0 | T |
| ABC133 | 2018 Fall | Basic Lighting | | Principles of illumination and specific light sources. Includes practical applications for residential, commercial and industrial installations | Prerequisites: Registered apprentice status or permission of the Apprenticeship Coordinator. | | Occ | L+L 1.0 1.0 1.0 | T |
| ABC135 | 2005 Spring | Fundamentals of Concrete | | Materials used to make concrete, including specific types of cement, aggregate, admixtures and reinforcing materials. Handling procedures for concrete, conveying and placing concrete and finishing techniques for concrete slab. Construction of foundations and formwork | Prerequisites: Registered apprentice status or permission of the Apprenticeship Coordinator. | | Occ | LEC 1.0 1.0 1.0 | S |
| ABC136 | 2014 Fall | Roof Systems | | Defining roof terminology. Identifying and understanding specific roof systems. Using the framing square and essex scale to calculate and measure specific types of rafters. Transcribing and transferring measurements onto rafters. Using "speed | Prerequisites: (Registered apprentice status and a grade of C or better in ABC/MEC/PNT120) or permission of the Apprenticeship Coordinator. | | Occ | LEC 1.0 1.0 1.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | square" to determine measurements for specific types of rafters. Defining unequal roof pitch. Identifying specific types of plank and beam roofs and roof trusses used in the industry today. | | | | | |
| ABC142 | 2014 Fall | Alternating Current | | Production of electricity, including; current, voltage, induction, mutual inductance and capacitance. Calculations using Ohms Law. Operation of a three phase system. | Prerequisites: (Registered apprentice status and a grade of C or better in ABC/MEC/PED120) or permission of the Apprenticeship Director. | | Occ | LEC 1.0 1.0 1.0 | S |
| ABC143 | 2004 Fall | Motors: Theory and Application | | Overview of electric motors including types, operation, and applications. Assembly and disassembly. Mounting and connections according to National Electrical Code (NEC). Also troubleshooting, installation and handling | Prerequisites: Registered apprentice status or permission of the Apprenticeship Coordinator. | | Occ | LEC 2.0 2.0 2.0 | S |
| ABC144 | 2003 Summer I | Grounding | | Types of grounding and proper installation of grounds and grounding. OSHA and National Electrical Code (NEC) requirements specific to grounding. Purpose and operation of Ground Fault Circuit Interrupters (GFCI). Effects of soils and environment. Selection of grounds and grounding material for specific situations. Testing grounds with a "megger" | Prerequisites: Registered apprentice status or permission of the Apprenticeship Coordinator. | | Occ | LEC 1.0 1.0 1.0 | S |
| ABC221 | 2018 Fall | Motors and Motor Controls | | Electrical symbols, line diagrams and logic. Contactors and starters, control devices, reversing circuits and power distribution systems. Electronic control devices, programmable controllers, reduced voltage starters, accelerating and decelerating methods and | Prerequisites: Registered apprentice status or permission of the Apprenticeship Coordinator. | | Occ | L+L 3.0 3.0 3.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | circuits. Preventive maintenance and trouble shooting | | | | | |
| ABC222 | 2004 Fall | Hazardous Locations-Electrical | | Hazardous location classifications. Equipment approved for use in specific hazardous locations. Wiring methods | Prerequisites: Registered apprentice status or permission of the Apprenticeship Coordinator. | | Occ | LEC 1.0 1.0 1.0 | S |
| ABC226 | 2004 Fall | Raceways, Wiring Devices, Boxes and Fittings | | Sizing, selecting, and installing raceways, junction boxes, outlet boxes and wiring devices. Calculating fill requirements according to National Electrical Code (NEC) regulations. Calculating bending radii in boxes and cabinets. Types and purpose of wiring devices and calculating maximum loads on such devices | Prerequisites: Registered apprentice status or permission of the Apprenticeship Coordinator. | | Occ | LEC 1.5 1.5 1.5 | S |
| ABC230 | 2014 Fall | Stair Construction | | Stair parts, materials and types. Stair dimensions and practical techniques for stair layout. Rough forming methods. | Prerequisites: (Registered apprentice status and a grade of C or better in ABC/MEC/PNT120) or permission of the Apprenticeship Coordinator. | | Occ | LEC 1.0 1.0 1.0 | S |
| ABC231 | 2005 Spring | Exterior Wall Finishes | | Exterior wall finish work; placement and hanging of windows, siding and flashing for walls. Installation of floors, chimneys and insulation included | Prerequisites: Registered apprentice status or permission of the Apprenticeship Coordinator. | | Occ | LEC 3.0 3.0 3.0 | S |
| ABC256 | 2018 Fall | Basic Plumbing | | Plumbing fixtures, drainage fixture unit ratings, and installation procedures. Includes procedures for installing fixtures, water heaters, shower and bath units, and dishwashers. Safety stressed. | Prerequisites: None. | | Occ | L+L 4.0 4.0 4.0 | T |
| ABC298AA | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of | Prerequisites: Permission of Program Director or Instructor. | Course Attribute(s): COMMON COMPETENCY COURSE | Occ | LAB 1.0 1.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. | | | | | |
| ABC298AB | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. | Prerequisites: Permission of Program Director or Instructor. | Course Attribute(s): COMMON COMPETENCY COURSE | Occ | LAB 2.0 2.0 0.0 | Z |
| ABC298AC | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. | Prerequisites: Permission of Program Director or Instructor. | Course Attribute(s): COMMON COMPETENCY COURSE | Occ | LAB 3.0 3.0 0.0 | Z |
| ABO103 | 2022 Fall | Introduction to Auto Body Repair | | An introduction to basic auto body repair skills in dent removal. This course includes body filler application and sanding, plastic repair, metal | Prerequisites: None. | | CLK | 156 | |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | repair, welding, plasma cutting, collision estimating, and air conditioning refrigerant recovery. | | | | | |
| ABO104 | 2022 Fall | Introduction to Automotive Refinishing | | An introduction to basic refinishing skills with dual and single stage paints. This course includes spray equipment setup, panel prep and tape, paint correction with cut and buffing, scratch repair and proper blending techniques, basic knowledge of toners and paint mixing. | Prerequisites: None. | | CLK | 156 | |
| ABO203 | 2022 Fall | Advanced Automotive Body Repair | | An advanced course in non-structural auto body repair. This course includes disassembly of a vehicle, development of a collision repair plan, and repair. Includes body filler application and sanding, plastic repair, metal repair, and welding. | Prerequisites: None. | | CLK | 156 | |
| ABO204 | 2022 Fall | Advanced Refinishing Fundamentals | | An advanced course in vehicle refinishing and reassembly. This course includes spray equipment setup, vehicle prep and tape, paint correction with cut and buffing, scratch repair and proper blending techniques, knowledge of toners and paint mixing. | Prerequisites: None. | | CLK | 156 | |
| ABS171 | 2023 Fall | Introduction to Good Manufacturing Practices(GMP)-Regulated Manufacturing | | Course is designed to provide individuals with an overview of Good Manufacturing Practices (GMP), their application in a variety of industries and the opportunities for in such fields. | Prerequisites: None. | ABS/BIO171 may include required field trips. ABS/BIO171 may be repeated for a total of six (6) credits. | Occ | LEC 3.0 3.0 3.0 | S |
| ABS173 | 2023 Fall | Basic Instrumentation and Lab Math | | Introductory course covering basic equipment, measurements, and calculations used in biotechnology laboratories. | Prerequisites: None. BIO156 or BIO181 recommended. | | | LEC 1.0 1.0 1.0 | S |
| ABS174 | 2023 Fall | BioSafety | | General laboratory safety, hazardous chemical use and disposal, biohazardous | Prerequisites: None. | | Acad | LEC 1.0 1.0 1.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | material use and disposal, biosafety procedures, and radiation safety. | | | | | |
| ABS175 | 2023 Fall | Research Methods in Biology | | Fundamentals of planning and conducting biological experiments, including ones that simultaneously vary multiple experimental variables. Subsequent analysis, interpretation, and reporting of results. | Prerequisites: None. BIO156 or BIO181 recommended. | | | L+L 1.0 2.0 2.0 | T |
| ABS194AA | 2024 Spring | Special Topics in Applied Biological Sciences | | Exploration of the foundation and application of a current topic in biosciences. | Prerequisites: Permission of Instructor. | | Occ | LEC 1.0 1.0 1.0 | S |
| ABS194AB | 2024 Spring | Special Topics in Applied Biological Sciences | | Exploration of the foundation and application of a current topic in biosciences. | Prerequisites: Permission of Instructor. | Occ | Occ | LEC 2.0 2.0 2.0 | S |
| ABS194AC | 2024 Spring | Special Topics in Applied Biological Sciences | | Exploration of the foundation and application of a current topic in biosciences. | Prerequisites: Permission of Instructor. | | Occ | LEC 3.0 3.0 3.0 | S |
| ABS274 | 2023 Fall | Introduction to Wildlife Management | | Introduction to the field of wildlife biology/management and the legal, cultural, ecological, and population dynamics of wildlife biology and management. Covers wildlife management objectives, management techniques, research techniques, and the organizational environment that wildlife biologists work in; provides an overview of careers in the field and guidance in planning a career. | Prerequisites: High school biology with a grade of C or better or a grade of C or better in BIO100 or BIO181 or permission of Instructor. | | Occ | LEC 4.0 3.0 3.0 LAB 0.0 3.0 3.0 | T |
| ABS294AA | 2024 Spring | Special Topics in Applied Biological Sciences-Advanced | | Exploration of a current topic in the biosciences and its advanced applications. | Prerequisites: Permission of Instructor. | | Occ | LEC 1.0 1.0 1.0 | S |
| ABS294AB | 2024 Spring | Special Topics in Applied Biological Sciences-Advanced | | Exploration of a current topic in the biosciences and its advanced applications. | Prerequisites: Permission of Instructor. | | Occ | LEC 2.0 2.0 2.0 | S |
| ABS294AC | 2024 Spring | Special Topics in Applied Biological Sciences-Advanced | | Exploration of a current topic in the biosciences and its advanced applications. | Prerequisites: Permission of Instructor. | | Occ | LEC 3.0 3.0 3.0 | S |
| ACC105 | 1990 Spring | Payroll, Sales and Property Taxes | | Tax reporting for payroll, sales, and personal property | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| ACC107 | 2018 Fall | Bookkeeping Theory and Practice | | Fundamental accounting practices; application to retail stores, professional firms, and personal service operations. | Prerequisites: None. | | Occ | L+L 4.0 5.0 5.0 | T |
| ACC109 | 2020 Fall | Accounting Concepts | | Introduction to accounting with emphasis on analysis and applications of financial information. | Prerequisites: None. GBS151 and reading ability equivalent to RDG100 or RDG100LL suggested but not required. | | | LEC 3.0 3.0 3.0 | S |
| ACC110 | 2018 Fall | Understanding and Using Accounting Systems | | Develops basic comprehension of the balance sheet, income statement, and equity and cash flow statements. Explores usage of specialized journals and subsidiary ledgers in a computerized system. Studies the impact of various transactions on an enterprise, including payroll, receivables, payables, inventory, cash and credit card receipts | Prerequisites: None. | Occ | Occ | L+L 3.0 3.0 3.0 | T |
| ACC111 | 1994 Fall | Accounting Principles I | | Fundamental theory of accounting principles and procedures | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| ACC112 | 1994 Fall | Accounting Principles II | | Continuation of the fundamental theory of accounting principles and procedures, including interpretation of general purpose financial statements. | Prerequisites: A grade of C or better in ACC111 or permission of Department or Division. | | | LEC 3.0 3.0 3.0 | S |
| ACC115 | 2020 Fall | Computerized Accounting | | Understanding of fundamental accounting principles and mastery of an accounting information systems including the general ledger, accounts receivable, accounts payable and payroll. | Prerequisites: None. | | Occ | L+L 3.0 3.0 3.0 | T |
| ACC121 | 2022 Spring | Individual Tax Preparation | | Theory and practice of accounting for individual taxation. | Prerequisites: None. | Occ | Occ | L+L 3.0 3.0 3.0 | T |
| ACC211 | 2016 Summer | Financial Accounting | | Introduction to theory and practice in the preparation and interpretation of general purpose financial statements. | Prerequisites: None. | Course Attribute(s): Arizona Shared Unique Number SUN#: ACC 2201 | Occ | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| ACC212 | 2011 Fall | Managerial Accounting | | Development and analysis of accounting information for managerial planning and control | Prerequisites: A grade of C or better in (ACC111 and ACC112) or ACC211 and (CIS105 or permission of Department or Division). | Course Attribute(s): Arizona Shared Unique Number SUN#: ACC 2202 | Occ | LEC 3.0 3.0 3.0 | S |
| ACC215 | 2019 Fall | Governmental and Not-For-Profit Accounting | | Theories and procedures of accounting for governmental and not-for-profit organizations. | Prerequisites: A grade of C or better in ACC112 or ACC211, or permission of Department or Division. | | | LEC 3.0 3.0 3.0 | S |
| ACC216 | 2009 Fall | Fraud Examination | | Fundamental theory of fraud examination methodology to detect and prevent accounting fraud. | Prerequisites: A grade of C or better in (ACC230 or ACC112 or ACC211) or permission of Department or Division. | | | LEC 3.0 3.0 3.0 | S |
| ACC219 | 2022 Spring | Intermediate Accounting I | | Continuation of the theory and practice of financial accounting, applicable to assets, liabilities, equity related problems of income determination and financial reporting. | Prerequisites: A grade of C or better in ACC212 or ACC240 or permission of Department or Division. | Occ | | LEC 3.0 3.0 3.0 | S |
| ACC220 | 2022 Spring | Intermediate Accounting II | | Continuation of the theory and practice of financial accounting, applicable to assets, liabilities, equity determination of asset values, liabilities, and related problems of income determination, special topics and financial reporting. | Prerequisites: A grade of C or better in ACC219 or permission of Department or Division. | Occ<br>Occ | | LEC 3.0 3.0 3.0 | S |
| ACC221 | 2022 Fall | Tax Accounting | | Theory and practice of accounting for personal, corporate, and non-corporate taxation. | Prerequisites: A grade of C or better in ACC111 or ACC211 or permission of Department or Division. | Occ | | LEC 3.0 3.0 3.0 | S |
| ACC222 | 1995 Fall | Payroll Accounting | | Payroll records for businesses required by federal and state laws | Prerequisites: A grade of C or better in ACC111 or ACC211 or permission of Department or Division. | | | LEC 3.0 3.0 3.0 | S |



Occ

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| ACC224 | 2022 Spring | Tax Practice Administration and Business Entity Analysis | | Federal income tax representation, practices, and procedures, including trust and estate income tax, exempt organizations, and retirement plans. | Prerequisites: A grade of C or better in ACC121 or ACC221. | | Occ | LEC 3.0 3.0 3.0 | S |
| ACC230 | 2016 Summer | Uses of Accounting Information I | | Introduction to the uses of accounting information for internal and external purposes with emphasis on financial statement analysis. | Prerequisites: A grade of C or better in ACC111 or ACC211 or (ENG101 and MAT151 and CRE101) or appropriate test scores on the District English, Reading and Math placement exams. | | Occ | LEC 3.0 3.0 3.0 | S |
| ACC240 | 2016 Summer | Uses of Accounting Information II | | Introduction to the uses of accounting information for internal and external purposes with emphasis on analysis for use by management. | Prerequisites: A grade of C or better in ACC230. | | Occ | LEC 3.0 3.0 3.0 | S |
| ACC250 | 2018 Fall | Introductory Accounting Lab | | Procedural details of accounting for the accumulation of information and generation of reports for internal and external users. | Prerequisites: None. | | Occ | LAB 1.0 3.0 3.0 | T |
| ACC260 | 2017 Summer | Certified Bookkeeper (CB) Preparation | | Fundamental accounting practices including accrual and deferral adjustments, correcting common transaction recording errors, bank reconciliations and adjusting entries. Includes payroll accounting and related Federal and State payroll law requirements. Accounting for depreciation for financial and tax accounting purposes covered. Inventory valuation methods. Includes calculating, recording, and reporting under generally accepted accounting principles (GAAP). Preventive internal control procedures to detect organizational fraud, theft, and embezzlement covered. | Prerequisites: A grade of C or better in ACC111 or ACC211 or (bookkeeping experience and permission of Instructor). | | Occ | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| ACC270AA | 2016 Spring | Accounting Internship | | Accounting work experience in a business or industry. Eighty hours of designated work per credit per semester. | Prerequisites: Permission of Department or Division. | ACC270AA may be repeated for a total of four (4) credits. | Occ | LAB 1.0 1.0 0.0 | C |
| ACC270AB | 2016 Spring | Accounting Internship | | Accounting work experience in a business or industry. Eighty hours of designated work per credit totaling 160 hours per semester. | Prerequisites: Permission of Department or Division. | ACC270AB may be repeated for a total of four (4) credits. | Occ | LAB 2.0 2.0 0.0 | C |
| ACC270AC | 2016 Spring | Accounting Internship | | Accounting work experience in a business or industry. Eighty hours of designated work per credit totaling 240 hours per semester. | Prerequisites: Permission of Department or Division. | ACC270AC may be repeated for a total of six (6) credits | Occ | LAB 3.0 3.0 0.0 | C |
| ACC282AA | 2016 Summer | Volunteerism Accounting: Service Learning Experience | | Service learning field experience within private/public agencies, educational institution, and citizen volunteer groups. | Prerequisites: A grade of C or better in ACC111 or (ACC230 and ACC250) and permission of Instructor. | ACC282AA may be repeated for a total of six (6) ACC282 credit hours. Standard grading available according to procedures outlined in catalog. | Occ | LAB 1.0 1.0 0.0 | L |
| ACC282AB | 2016 Summer | Volunteerism Accounting: Service Learning Experience | | Service learning field experience within private/public agencies, educational institution, and citizen volunteer groups. | Prerequisites: A grade of C or better in ACC111 or (ACC230 and ACC250) and permission of Instructor. | ACC282AB may be repeated for a total of six (6) credit hours. Standard grading available according to procedures outlined in catalog. | Occ | LAB 2.0 2.0 0.0 | L |
| ACC282AC | 2016 Summer | Volunteerism Accounting: Service Learning Experience | | Service learning field experience within private/public agencies, educational institution, and citizen volunteer groups. | Prerequisites: A grade of C or better in ACC111 or (ACC230 and ACC250) and permission of Instructor. | ACC282AC may be repeated for a total of six (6) credit hours. Standard grading available according to procedures outlined in catalog. | Occ | LAB 3.0 3.0 0.0 | L |
| ACC296WA | 2002 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or | Occ | | LAB 1.0 5.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | career interest or with permission of Instructor. | | | | |
| ACC296WB | 2002 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor. | | Occ | LAB 2.0 5.0 0.0 | Z |
| ACC296WC | 2002 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor. | | Occ | LAB 3.0 15.0 0.0 | Z |
| ACC296WD | 2002 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or | | Occ | LAB 4.0 20.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor. | | | | |
| ACC298AA | 2016 Summer | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment are made available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. | Prerequisites: Permission of Program Director or Instructor. | | Occ | LAB 1.0 1.0 0.0 | Z |
| ACC298AB | 2016 Summer | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment are made available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. | Prerequisites: Permission of Program Director or Instructor. | | Occ | LAB 2.0 2.0 0.0 | Z |
| ACC298AC | 2016 Summer | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by | Prerequisites: Permission of Program Director or Instructor. | | Occ | LAB 3.0 3.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | professional expertise and guidance. Professional-type facilities and equipment are made available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. | | | | | |
| ACT298AA | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | Prerequisites: Permission of Program Director or Instructor. | Occ | | LAB 1.0 1.0 0.0 | Z |
| ACT298AB | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | Prerequisites: Permission of Program Director or Instructor. | Occ | | LAB 2.0 2.0 0.0 | Z |
| ACT298AC | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and | Prerequisites: Permission of Program Director or Instructor. | | | LAB 3.0 3.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | | | | | |
| AEN102 | 2017 Summer | Fundamentals of Facility Energy Management | | Process of evaluation of types of energy use. Evaluation of the structure, energy transfer, lighting, heating, and cooling systems. Introduction to basic thermal process, including thermal capacity, heat transfer modes, psychometric charts, fan and pump laws, energy storage, and other factors related to HVAC and occupant comfort in commercial facilities. Includes an introduction to energy generation, construction and equipment, and the impact of these factors on cost and economic justification. | Prerequisites: None. | | Occ | LEC 4.0 4.0 4.0 | S |
| AEN103 | 2018 Fall | Hand Tools and Basic Maintenance for Building Energy Technicians | | Basic tools and equipment for the building energy technician. Includes an overview of electrical theory and procedures for measurement and evaluation of common electric circuits, specific heating, ventilation, and air conditioning (HVAC) mechanical hardware devices, analysis of building environmental conditions, and safe procedures for starting and stopping equipment and systems. Also addresses basic repair and replacement of electric outlets, fuses, | Prerequisites: None. | | Occ | L+L 4.0 4.0 4.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | breakers, filters, and necessary diagnostics on related electrical and mechanical items. | | | | | |
| AEN142 | 2018 Fall | Introduction to Energy Management | | Introduction to building energy management concepts and procedures. Includes the carbon cycle, building envelope and materials of construction in their relation to energy management, occupant comfort, and indoor air quality. Major emphasis on identification of building system components, relations, interactions and basic operation, evaluation and reporting of energy trending and consumption, and efficiency. | Prerequisites: A grade of C or better in AEN102, AEN103 and CNS182. | Occ | | L+L 3.0 3.0 3.0 | T |
| AEN190 | 2018 Fall | Device Interface and Selection | | Overview of building management systems, components, and controls. Includes energy consumption basics and measurement in addition to building systems evaluation. Also covers the process for evaluation and documentation of systems as well as recommendations for potential energy conservation. | Prerequisites: A grade of C or better in AEN142 and (MAT112 or MAT122). | | | L+L 3.0 5.0 5.0 | T |
| AES101 | 2023 Fall | Heritage and Values I | | Survey course designed to introduce students and cadets to the Department of the Air Force (DAF) and the Air Force Reserve Officer Training Corps (AFROTC). The course allows students and cadets to examine general aspects of the DAF, leadership fundamentals, service benefits, and opportunities for officers. The course also lays the foundation for becoming an Airman or Guardian by outlining our heritage and | Prerequisites: None. | Occ | Acad | LEC 2.0 1.0 0.0 LAB 0.0 1.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | values. As a foundational course, this course provides a historical perspective such as lessons on war and US military, DAF operations, principles of war, and airpower. | | | | | |
| AES103 | 2023 Fall | Heritage and Values II | | Survey course designed to introduce students and cadets to the Department of the Air Force (DAF) and the Air Force Reserve Officer Training Corps (AFROTC). The course allows students and cadets to examine general aspects of the DAF, leadership fundamentals, service benefits, and opportunities for officers. The course also lays the foundation for becoming an Airman or Guardian by outlining our heritage and values. As a foundational course, this course provides a historical perspective such as lessons on war and US military, DAF operations, principles of war, and airpower. | Prerequisites: None. | | Acad | LEC 2.0 1.0 0.0 LAB 0.0 1.0 0.0 | Z |
| AES201 | 2023 Fall | Team and Leadership Fundamentals I | | A survey course designed to provide a fundamental understanding of both leadership and team building. Students and cadets will learn that there are many layers to leadership, including aspects that do not always come to mind. Such things include listening, understanding themselves, being a good follower, and problem solving efficiently. Students and cadets will apply these leadership perspectives when completing team building activities and discussing | Prerequisites: None. | | Acad | LEC 2.0 1.0 0.0 LAB 0.0 1.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | things like conflict management. Students and cadets should demonstrate basic verbal and written communication skills. | | | | | |
| AES203 | 2023 Fall | Team and Leadership Fundamentals II | | A survey course designed to provide a fundamental understanding of both leadership and team building. Students and cadets will learn that there are many layers to leadership, including aspects that do not always come to mind. Such things include listening, understanding themselves, being a good follower, and problem solving efficiently. Students and cadets will apply these leadership perspectives when completing team building activities and discussing things like conflict management. Students and cadets should demonstrate basic verbal and written communication skills. | Prerequisites: None. | | Acad | LEC 2.0 1.0 0.0 LAB 0.0 1.0 0.0 | Z |
| AES294 | 2016 Fall | Air Force Physical Fitness | | Physical training component of Air Force ROTC. Covers topics of immediate or special interest to a faculty member and students. | Prerequisites: None. | AES294 may be repeated for credit. AES294 must be taken concurrently with AES101, AES103, AES201 and AES203. | Acad | L+L 1.0 3.0 0.0 | Z |
| AES298AA | 2008 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student | Prerequisites: None. | | Acad | LAB 1.0 1.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | development. COMMON COMPETENCY COURSE | | | | | |
| AES298AB | 2008 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | Prerequisites: None. | | Acad | LAB 2.0 2.0 0.0 | Z |
| AES298AC | 2008 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment are made available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | Prerequisites: None. | | Acad | LAB 3.0 3.0 0.0 | Z |
| AET107 | 2022 Fall | Private Pilot Ground School | | Ground school in preparation for the Federal Aviation Administration (FAA) Private Pilot Certificate written examination. Includes aerodynamics, airplane systems, airports, airspace, communications, Federal Air Regulations, navigation, airplane performance, flight planning, and flight physiology. Requires passing | Prerequisites: None. Corequisites: AET110 or AET112. | | Occ | LEC 5.0 5.0 5.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | a written exam similar to the FAA Private Pilot written exam. | | | | | |
| AET107HH | 2012 Summer II | Private Pilot Ground School: Helicopter | | Ground school in preparation for the Federal Aviation Administration (FAA) Private Pilot Certificate written examination. Includes aerodynamics, helicopter systems, airports, airspace, communications, Federal Air Regulations, navigation, helicopter performance, flight planning, and flight physiology. Requires passing a written exam similar to the FAA Private Pilot written exam. | Prerequisites: None. Corequisites: AET110HH. | | Occ | LEC 5.0 5.0 5.0 | S |
| AET110 | 2020 Fall | Private Pilot Flight | | Flight course in preparation for the Federal Aviation Administration (FAA) Private Pilot Certificate practical examination. Includes preflight preparation and planning, ground operations, airport operations, departures, navigation, basic instrument flight, night flight, slow flight, ground reference maneuvers, emergency operations, and arrivals. Approximately 50 hours airplane flight experience at student`s expense required. Requires passing check ride similar to the FAA Private Pilot check ride. | Prerequisites: None. Corequisites: AET107. | | Occ | LAB 1.0 5.0 5.0 | T |
| AET110HH | 2018 Fall | Private Pilot Flight: Helicopter | | Flight course in preparation for the Federal Aviation Administration (FAA) Private Pilot Certificate practical examination. Includes preflight preparation, preflight procedures, airport and heliport operations, hovering maneuvers, takeoffs, landings, | Prerequisites: None. Corequisites: AET107HH. | | Occ | LAB 2.0 5.0 5.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | and go-rounds, performance maneuvers, navigation, emergency operations, night operations, and post-flight procedures. Approximately 75-85 hours helicopter flight experience at student's expense required. Requires passing check ride similar to the FAA Private Pilot check ride. | | | | | |
| AET112 | 2022 Spring | Private Pilot Flight - Test Course | | Flight course in preparation for transition into continued AET course work. Includes preflight preparation and planning, ground operations, airport operations, departures, navigation, basic instrument flight, slow flight, ground reference maneuvers, emergency operations, and arrivals. Requires passing check ride similar to the Federal Aviation Administration Private Pilot check ride. | Prerequisites: FAA Private Pilot Airplane Single-Engine Land or advanced certification. Corequisites: AET107. | Flight and ground briefing time at student`s expense required. | Occ | LAB 1.0 5.0 5.0 | T |
| AET115 | 1994 Fall | Aviation Meteorology | | Meteorology for professional pilots. Includes atmosphere, air mass circulation, cloud type identification, weather hazards, and high altitude, Arctic, and tropical weather systems. Basic forecasting, use of Direct User Access Terminal (DUAT) systems and reading and interpreting weather charts | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| AET203 | 2022 Summer | Basic Airplane Systems | | Beginning commercial pilot ground course in preparation for the Federal Aviation Administration (FAA) Commercial Pilot Certificate and Commercial written examination. Discussions will include, but not be limited to reciprocating engines, engine | Prerequisites: A grade of C or better in (AET207, AET217, and AET210) or permission of Instructor. Corequisites: AET222. | | | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | systems, airplane systems, altitude systems, and commercial regulations. | | | | | |
| AET203HH | 2012 Summer II | Basic Helicopter Systems | | Beginning commercial pilot ground course in preparation for the Federal Aviation Administration (FAA) Commercial Pilot Certificate and Commercial written examination Discussions will include, but not be limited to reciprocating engines, engine systems, helicopter systems, altitude systems, and commercial regulations. | Prerequisites: A grade of C or better in AET207HH, AET217HH and AET210HH or permission of Instructor. Corequisites: AET220HH and AET213HH. | | Occ | LEC 2.0 2.0 2.0 | S |
| AET205 | 1994 Fall | Aircraft Structures, Systems, and Maintenance | | Survey of airframe structures, systems, and maintenance regulations for pilots. Includes aircraft and airfoil design and construction, and electrical, instrumentation, and automatic flight control systems. Maintenance privileges and limitations, and forms and records | Prerequisites: Private Pilot Certificate or permission of Instructor. | | Occ | LEC 4.0 4.0 4.0 | S |
| AET207 | 2022 Fall | Attitude Instruments and Navigation | | Beginning instrument pilot ground course in preparation for the Federal Aviation Administration (FAA) Instrument Pilot Rating and Instrument Rating written examinations. Includes preflight preparation, flight instruments, basic attitude instrument flying, radio navigation systems, and technically advanced aircraft systems. | Prerequisites: A grade of C or better in AET110 or permission of Instructor. Corequisites: AET210, AET217 and AET220 | | | LEC 3.0 3.0 3.0 | S |
| AET207HH | 2012 Summer II | Attitude Instruments and Navigation: Helicopter | | Beginning instrument pilot ground course in preparation for the Federal Aviation Administration (FAA) Instrument Pilot Rating and Instrument rating written examinations. Includes preflight preparation, flight | Prerequisites: A grade of C or better in AET110HH or permission of Instructor. Corequisites: AET210HH and AET217HH. | Occ | Occ | LEC 2.0 2.0 2.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | instruments, basic attitude instrument flying, radio navigation systems, and technically advanced helicopter systems. | | | | | |
| AET208 | 2020 Fall | Aviation Safety | | Introduction to aviation safety, including aviation safety programs, risk management, pilot psychology, physiology, human factors, and accident review and investigation. | Prerequisites: A grade of C or better in AET107 or permission of Instructor. | | Occ | LEC 3.0 3.0 3.0 | S |
| AET210 | 2022 Fall | Commercial Flight Lab I | | Initial flight course in preparation for the Federal Aviation Administration (FAA) Commercial Pilot practical examination. Emphasis on instrument and technically advanced aircraft operations. Student must fly approximately 10 hours at own expense. Requires passing operational stage checks similar to the FAA check rides. | Prerequisites: A grade of C or better in AET110 or permission of Instructor. Corequisites: AET207, AET217 and AET220. | | Occ | LAB 1.0 5.0 5.0 | T |
| AET210HH | 2018 Fall | Instrument Flight: Helicopter | | Initial helicopter flight course in preparation for the Federal Aviation Administration (FAA) Instrument rating practical examination. Emphasis on helicopter instrument operations. Student must fly approximately 75 hours at own expense. Requires passing operational phase checks. | Prerequisites: A grade of C or better in AET110HH or permission of Instructor. Corequisites: AET207HH and AET217HH. | | Occ | LAB 2.0 5.0 5.0 | T |
| AET213 | 2022 Spring | Aerodynamics and Performance | | Advanced commercial pilot ground course in preparation for the Federal Aviation Administration (FAA) Commercial Pilot Certificate and Commercial written examinations. Includes discussion of aerodynamic factors including lift, weight, drag, and thrust. Discussions will include, but are not limited | Prerequisites: A grade of C or better in AET207, AET217, and AET210. Corequisites: AET221. | | Occ | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | to aerodynamics, performance, safe and efficient airplane operations, airplane stability and control, stalls, and spins. | | | | | |
| AET213HH | 2012 Summer II | Aerodynamics and Performance: Helicopter | | Advance commercial pilot ground course in preparation for the Federal Aviation Administration (FAA) Commercial Pilot Certificate and Commercial written examinations. Includes discussion of aerodynamic factors including lift, weight, drag, and thrust. Discussions will include, but are not limited to aerodynamics, performance, and safe and efficient helicopter operations. | Prerequisites: A grade of C or better in AET207HH, AET217HH, and AET210HH. Corequisites: AET220HH and AET203HH. | | Occ | LEC 2.0 2.0 2.0 | S |
| AET215 | 1994 Fall | Aircraft Powerplants | | Survey of engines and engine systems for pilots. Includes theory and analysis of reciprocating and turbine aircraft engines. Lubrication, ignition, fuel control, cooling, exhaust, and propellers. | Prerequisites: A grade of C or better in AET205 or permission of Instructor. | | Occ | LEC 4.0 4.0 4.0 | S |
| AET217 | 2022 Fall | Instrument Procedures | | Advanced instrument pilot ground school course in preparation for the Federal Aviation Administration (FAA) Instrument pilot rating and Instrument rating written examinations. Includes Federal Aviation Regulations, instrument approach procedures, and instrument enroute considerations. Requires passing written exam similar to the Instrument pilot rating and Instrument rating written exams. | Prerequisites: A grade of C or better in AET110 or permission of Instructor. Corequisites: AET207, AET210 and AET220. | | Occ | LEC 3.0 3.0 3.0 | S |
| AET217HH | 2012 Summer II | Instrument Procedures: Helicopter | | Advance helicopter instrument pilot ground school course in preparation for the Federal Aviation Administration (FAA) Instrument pilot rating and | Prerequisites: A grade of C or better in AET110HH or permission of Instructor. Corequisites: | | | LEC 2.0 2.0 2.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Instrument rating written examinations. Includes Federal Aviation Regulations, instrument approach procedures, and instrument enroute considerations. Requires passing written exams similar to the Instrument pilot rating and Instrument rating written exams. | AET210HH and AET207HH. | | | | |
| AET220 | 2022 Fall | Instrument Flight Lab | | Flight course in preparation for the Federal Aviation Administration (FAA) Instrument rating practical examination. Emphasis on instrument operations. Student must fly approximately 40 hours at own expense. Requires passing of stage checks similar to the FAA check ride. | Prerequisites: A grade of C or better in AET110 or permission of Instructor. Corequisites: AET207, AET210 and AET217. | | Occ | LAB 1.0 5.0 5.0 | T |
| AET220HH | 2018 Fall | Commercial Flight: Helicopter | | Advanced flight course in preparation for the Federal Aviation Administration (FAA) Commercial Pilot practical examination. Emphasis on commercial and high performance helicopter operations. Student must fly approximately 60 hours at own expense. Requires passing instrument rating and commercial pilot stage checks similar to the FAA check rides. | Prerequisites: A grade of C or better in AET210HH, AET207HH and AET217HH. Corequisites: AET203HH and AET213HH. | | Occ | LAB 2.0 5.0 5.0 | T |
| AET221 | 2022 Spring | Commercial Flight Lab II | | Intermediate flight course in preparation for the Federal Aviation Administration (FAA) Commercial Pilot practical examination. Emphasis on commercial and solo cross-country flight operations. Student must fly approximately 45 hours at their own expense. Maneuvers and procedures | Prerequisites: A grade of C or better in AET207 and AET210 or by permission of Instructor. Corequisites: AET213. | | Occ | LAB 1.0 5.0 5.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | during dual instruction are designed to be performed with flight instructor guidance. Requires passing commercial pilot stage checks similar to the FAA check ride. | | | | | |
| AET222 | 2022 Spring | Commercial Flight Lab III | | Advanced flight course in preparation for the Federal Aviation Administration (FAA) Commercial Pilot practical examination. Emphasis on commercial operations. Student must fly approximately 45 hours at their own expense. Maneuvers and procedures are designed to be performed with little flight instructor guidance. Requires commercial pilot stage checks similar to the FAA check ride. | Prerequisites: A grade of C or better in AET221 and AET213. Corequisites: AET203. | Occ | | LAB 1.0 5.0 5.0 | T |
| AET225 | 2020 Fall | Advanced Aircraft Systems | | Survey of advanced aircraft systems to include electrical, automatic flight control, pressurization, cabin atmosphere, ice control, rain control, fire detection and extinguishing. Includes theory and analysis of turbine aircraft engines. Introduction to turbine engine systems to include lubrication, ignition, fuel control, cooling, exhaust, and propellers. Includes overview of maintenance publications, forms and records. | Prerequisites: Private Pilot Certificate or permission of Instructor. | Occ | | LEC 4.0 4.0 4.0 | S |
| AET227 | 2017 Fall | Certified Flight Instructor: Airplane, Single Engine Land Ground School | | Ground school in preparation for the Federal Aviation Administration (FAA) Certified Flight Instructor and Fundamentals of Instruction written examinations. Includes fundamentals of instruction, aerodynamics, airplane performance, systems, | Prerequisites: A grade of C or better in AET240 or FAA Commercial Pilot Certificate with instrument rating. Corequisites: AET230. | | | LEC 5.0 5.0 5.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | operations, weight and balance, weather, federal regulations, navigation, maneuvers, pilot physiology, ethics, and aeronautical decision making. Requires passing written exams similar to the FAA Certified Flight Instructor: Airplane, and Fundamentals of Instruction written exams. | | | | | |
| AET227HH | 2012 Summer II | Certified Flight Instructor: Helicopter Ground School | | Ground school in preparation for the Federal Aviation Administration (FAA) Certified Flight Instructor and Fundamentals of Instruction written examinations. Includes fundamentals of instruction, aerodynamics, helicopter performance, systems, operations, weight and balance, weather, federal regulations, navigation, maneuvers, pilot physiology, ethics, and aeronautical decision making. Requires passing written exams similar to the FAA Certified Flight Instructor: Helicopter, and Fundamentals of Instruction written exams. | Prerequisites: FAA Commercial Pilot Certificate. Corequisites: AET230HH. | Occ | | LEC 4.0 4.0 4.0 | S |
| AET229 | 2020 Fall | Crew Resource Management | | Crew communications, teamwork, leadership, "followership," decision-making, and situational awareness; also the benefits of diversity, and the role diversity plays in the modern aerospace industry. Emphasis on utilization of all available resources in order to conduct a safe and efficient flight. | Prerequisites: A grade of C or better in AET217 or permission of Instructor. | | | LEC 3.0 3.0 3.0 | S |
| AET230 | 2022 Fall | Certified Flight Instructor: Airplane, Single Engine Land Flight Lab | | Flight course in preparation for the Federal Aviation Administration (FAA) Certified Flight Instructor: Airplane | Prerequisites: A grade of C or better in AET240 or FAA Commercial Pilot Certificate with | Occ | | LAB 1.0 3.0 3.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | practical examination. Emphasis on demonstration and analysis of flight maneuvers. Includes preflight, ground operations, airport operations, takeoffs, climbs, flight fundamentals, stalls, spins, slow flight, basic instrument operations, performance maneuvers, ground reference maneuvers, emergency operations, approaches, landings, and post-flight procedures. Requires approximately 25 hours of flight that includes high performance operations at student's expense. Also requires passing check ride similar to the FAA Certified Flight Instructor check ride. | instrument rating. Corequisites: AET227. | | | | |
| AET230HH | 2018 Fall | Certified Flight Instructor: Helicopter | | Flight course in preparation for the Federal Aviation Administration (FAA) Certified Flight Instructor: Helicopter practical examination. Emphasis on demonstration and analysis of flight maneuvers. Includes preflight procedures, airport and heliport operations, hovering maneuvers, takeoffs,landings, and go-arounds, fundamentals of flight, performance maneuvers, emergency operations, special operations, and postflight procedures. Requires approximately 60 hours of flight at student's expense. Also requires passing check ride similar to the FAA Certified Flight Instructor check ride. | Prerequisites: FAA Commercial Pilot Certificate with instrument rating. Corequisites: AET227HH. | | Occ | LAB 1.0 3.0 3.0 | T |
| AET237 | 1995 Fall | Multiengine Airplane Pilot Ground School | | Aeronautical knowledge necessary to meet requirements for a multiengine | Prerequisites: A grade of C or better in AET220 or FAA Commercial | | | LEC 2.0 2.0 2.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | airplane rating including orientation, aerodynamics, airplane systems, airplane performance, flight planning, and emergency procedures. | Pilot Certificate with instrument rating. Corequisites: AET240. | | | | |
| AET239 | 2022 Spring | Commercial Flight Lab IV | | Final flight course in preparation for the Federal Aviation Administration (FAA) Commercial Pilot practical examination. Emphasis on commercial operations. Student must fly approximately 20 hours at their own expense. Maneuvers and procedures are designed to be performed without flight instructor guidance. Requires passing commercial pilot stage check similar to the FAA check ride. | Prerequisites: A grade of C or better in (AET203 and AET222), or by permission of Instructor. | | Occ | LAB 1.0 5.0 5.0 | T |
| AET240 | 2022 Fall | Multiengine Airplane Pilot Flight Lab | | Flight course in preparation for the Federal Aviation Administration (FAA) Multi-engine Airplane practical examination. Approximately 18 hours of flight experience at the student`s expense and passing check ride similar to the FAA Multi-engine check ride are required. | Prerequisites: A grade of C or better in AET239 or FAA Commercial Pilot Certificate with Single Engine Land and Instrument rating. Corequisites: AET237. | | | LAB 1.0 1.5 1.5 | T |
| AET257 | 2018 Fall | Readings in Aviation | | Critical inquiry of a particular aviation theme from a wide variety of sources. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. International data communication facilities and equipment made available for student use. | Prerequisites: A grade of C or better in ENG102 or ENG111 and permission of Instructor. | Occ | Occ | L+L 3.0 4.0 4.0 | T |
| AET258 | 2013 Summer I | Certified Flight Instructor: Instrument Airplane Ground School | | Aeronautical knowledge and practical teaching ability necessary to obtain an Instrument Flight Instructor Certificate with an Airplane- | Prerequisites: Valid FAA Commercial Pilot Certificate or Airline Transport Pilot Certificate with the | | | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Single-Engine rating and necessary to satisfactorily pass the Flight Instructor Instrument knowledge test. | appropriate category and class of airplane used in the course, instrument rating, and Flight Instructor Certificate-Airplane. Corequisites: AET270. | | | | |
| AET270 | 2018 Fall | Certified Flight Instructor: Instrument Airplane Flight Lab | | Flight experience in an airplane to meet flight proficiency and aeronautical experience requirements necessary to add an Instrument Airplane Rating to an existing Flight Instructor-Airplane certificate. | Prerequisites: Valid FAA Commercial Pilot Certificate or Airline Transport Pilot Certificate with the appropriate category and class of airplane used in the course, instrument rating, and Flight Instructor Certificate-Airplane. Corequisites: AET258. | | Occ | LAB 1.0 3.0 3.0 | T |
| AET296WA | 2002 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor. | | Occ | LAB 1.0 5.0 0.0 | Z |
| AET296WB | 2002 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students | | | LAB 2.0 10.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor. | | | | |
| AET296WC | 2002 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor. | | Occ | LAB 3.0 15.0 0.0 | Z |
| AET296WD | 2002 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor. | | Occ | LAB 4.0 20.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| AET298AA | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | Prerequisites: Permission of Program Director or Instructor. | | Occ | LAB 1.0 1.0 0.0 | Z |
| AET298AB | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment are made available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | Prerequisites: Permission of Program Director or Instructor. | | Occ | LAB 2.0 2.0 0.0 | Z |
| AET298AC | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student | Prerequisites: Permission of Program Director or Instructor. | | Occ | LAB 3.0 3.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | development. COMMON COMPETENCY COURSE | | | | | |
| AFR110 | 2009 Summer I | Introduction to African-American Studies | | Introduction to the study of the African-American experience. Interdisciplinary approach includes historical underpinnings; population and cultural characteristics; social, economic, and political issues; and implications for the future | Prerequisites: None. | Course Attribute(s): General Education Designation: Cultural Diversity - [C] | Acad | LEC 3.0 3.0 3.0 | S |
| AFR202 | 2017 Spring | Ethnic Relations in the United States | ASB202 CCS202 | Basic concepts and processes, including historic overview, of interethnic relations in the United States: culture, race, ethnicity, ethnocentrism, prejudice, discrimination, racism, assimilation, acculturation, and individual and group responses to interethnic contact. Cultural knowledge and intercultural communication skills and perspectives as fundamental tools for successful management of social relations in a multicultural world. | Prerequisites: None. | Course Attribute(s): General Education Designation: Cultural Diversity - [C] General Education Designation: Historical Awareness - [H] General Education Designation: Social and Behavioral Sciences - [SB] | Acad | LEC 3.0 3.0 3.0 | S |
| AFR203 | 2019 Spring | African-American History: The Slavery Experience | | History and cultural heritage of African-Americans, including arrival in the Americas, chattel slavery experience, emancipation, and participation in the American Civil War. Presented from an Afro-centric perspective. | Prerequisites: A grade of C or better in AFR110 or permission of Instructor. | Course Attribute(s): General Education Designation: Historical Awareness - [H] General Education Designation: Social-Behavioral Sciences - [SB] | Acad | LEC 3.0 3.0 3.0 | S |
| AFR204 | 2023 Fall | African-American History 1865 to Present | HIS204 | The multifaceted history and cultural heritage of African-American communities since the Civil War, presented within the broader context of U.S. history. This course explores the social, economic, political, and cultural history of African-American communities, including the historical and | Prerequisites: None. | | Acad | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | cultural impacts of slavery and discrimination, and the collective struggle for freedom, equality, and self-determination throughout U.S. history. | | | | | |
| AFR207 | 2008 Fall | Black Women | WST207 | Analysis and discussion of critical issues for Black women in America today | Prerequisites: None. | | Acad | LEC 3.0 3.0 3.0 | S |
| AGB130 | 2004 Fall | Establishing and Running an Agribusiness | | Basic principles used in establishing and running an Agribusiness. Emphasis on business requirements to maintain a business enterprise in Arizona | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| AGB132 | 2016 Spring | Agribusiness and Management | | Application of management principle skills in day-to-day operations for decision-making techniques base on collection, use and analysis of financial, employee, and customer data to determine and evaluate the daily operations of an agribusiness venture. | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| AGB139 | 2018 Fall | Agribusiness Computer Operations | | Agribusiness operations for solving, forecasting and projecting agribusiness problems, agribusiness communications, accounting systems and database use. | Prerequisites: None. | | Occ | L+L 3.0 6.0 6.0 | T |
| AGB140 | 2018 Fall | Commercial Floral Design | | Fundamentals of commercial floral design. Includes instruction and hands-on training in fresh, dried, and silk plants, flowers, and greens; materials; supplies; gift items; and industry conditions, standards, and trends. Covers design principles, identification, selection, care, maintenance, handling, and use of floral design material, ordering, pricing, recordkeeping, computer | Prerequisites: None. | | Occ | L+L 3.0 5.0 5.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | usage, and customer relations. | | | | | |
| AGB142 | 2018 Fall | Floriculture | | Principles and species of floriculture. Includes instruction in cultural and production requirements of cut flowers and foliage. Covers general production information and basic plant physiology principles, propagation, production temperatures, plant nutrients, pest management, and greenhouse construction and operations. | Prerequisites: None. | | Occ | L+L 3.0 5.0 5.0 | T |
| AGB144 | 2018 Fall | Agriculture Processing | | Agricultural processing and the meat industry as a business enterprise. Carcass evaluation, grading, judging for cut ability and quality, cut identification, meat cutting, wrapping, freezing, and storing. | Prerequisites: None. | | Occ | L+L 3.0 5.0 5.0 | T |
| AGB229 | 2007 Fall | Landscape Management and Leadership | | Covers landscape and nursery management concepts and applications for business, industry, and government organizations | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| AGB231 | 2016 Spring | Marketing of Agricultural Products | | Principles of agricultural marketing including consumer demand, economic system fundamentals, functions and methods of marketing agricultural commodities, market planning, and promoting and selling in the agricultural domain. | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| AGB260 | 2018 Fall | Youth Leadership Development | | Characteristics of effective Career and Technical Student Organization (CTSO) officers, leadership styles and strategies for the management and organization of youth groups in agriculture. Includes instruction and hands-on training in speech/workshop development, budget and | Prerequisites: None. | | Occ | L+L 4.0 6.0 6.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | activity planning and the use of parliamentary procedure. | | | | | |
| AGB261 | 2018 Fall | Advanced Youth Leadership Development | | Characteristics of effective Career and Technical Student Organization (CTSO) officers, leadership styles and strategies for the management and organization of youth groups in agriculture. Includes instruction and hands-on training in speech/workshop development, budget and activity planning and the use of parliamentary procedure. | Prerequisites: None. | | Occ | L+L 4.0 6.0 6.0 | T |
| AGB290 | 2018 Fall | Internship | | Supervised field training for Agribusiness students with local industry businesses. | Prerequisites: Student shall be in final semester before graduation and permission of Department or Division. | | | LAB 3.0 6.0 6.0 | T |
| AGB296WA | 2002 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor. | Occ | Occ | LAB 1.0 5.0 0.0 | Z |
| AGB296WB | 2002 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or | | Occ | LAB 2.0 10.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor. | | | | |
| AGB296WC | 2002 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor. | | Occ | LAB 3.0 15.0 0.0 | Z |
| AGB296WD | 2002 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor. | | Occ | LAB 4.0 20.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| AGB298AA | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | Prerequisites: Permission of Program Director or Instructor. | | Occ | LAB 1.0 1.0 0.0 | Z |
| AGB298AB | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | Prerequisites: Permission of Program Director or Instructor. | | Occ | LAB 2.0 2.0 0.0 | Z |
| AGB298AC | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment are made available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student | Prerequisites: Permission of Program Director or Instructor. | | Occ | LAB 3.0 3.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | development. COMMON COMPETENCY COURSE | | | | | |
| AGL181 | 2018 Fall | Landscape Construction Techniques | | The methods used in site preparation, installation of edgings, construction of walks, patios and decks, installation of sprinkler systems, rock scapes and the planting of trees, shrubs, ground covers, and lawns. | Prerequisites: None. | | Occ | L+L 3.0 6.0 6.0 | T |
| AGL184 | 2018 Fall | Landscape Drafting and Design I | | Basic principles of landscape design, including drafting and design techniques commonly used in the field of landscaping. Emphasis on simple working drawings and detailed views, symbols, lettering, and drafting standards. | Prerequisites: None. | | Occ | L+L 2.0 4.0 4.0 | T |
| AGL188 | 2018 Fall | Arizona Landscape Design | | Designed for residential homeowner and beginning professional. Emphasis on plant material groupings and basic design principles. History of landscape use, special features of hardscapes, irrigation systems, and lawn-to- desert planting conversion techniques. | Prerequisites: None. | | Occ | L+L 2.0 3.0 3.0 | T |
| AGL189 | 2018 Fall | Landscape Design I | | Introduction to landscape design with an emphasis on residential and small scale projects. Application of design processes from inventory and analysis through design and development including program, measured base, study diagrams, rendered and colored plans, and sectional elevations. Architectural communication developed through hand sketch and hand drafting techniques with practice in client interview and design presentation. | Prerequisites: None. | | Occ | L+L 3.0 6.0 6.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| AGL190 | 2018 Fall | Landscape Design II | | Advanced study of the principles, processes, and practice of Landscape Design, with an emphasis on residential and small scale design. Design problem-solving, use of landscape elements such as paving, fencing, small structures, low voltage lighting, plants, water and fire features. Construction documents will be produced including plans, estimates, details, and specifications. Regulatory agencies and other affective influences will be explained. Development of personal design philosophy and career exploration. | Prerequisites: A grade of C or better in AGL189 or permission of Instructor. | | Occ | L+L 3.0 6.0 6.0 | T |
| AGL269 | 2018 Fall | Computer Aided Landscape Design | CAD269 | Using AutoCAD to create landscape design drawings and wire frames in Sketchup for elevations, sections and perspective sketches. | Prerequisites: A grade of C or better in (AGB139 or CAD100 or CAD101) and AGL189 or permission of Instructor. | | Occ | L+L 3.0 6.0 6.0 | T |
| AGL296WA | 2002 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor. | | Occ | LAB 1.0 5.0 0.0 | Z |
| AGL296WB | 2002 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to | Prerequisites: Completion of at least twelve (12) college | | | LAB 2.0 10.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE | credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor. | | | | |
| AGL296WC | 2002 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor. | | Occ | LAB 3.0 15.0 0.0 | Z |
| AGL296WD | 2002 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently | | Occ | LAB 4.0 20.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | enrolled in at least one class which is related to students major or career interest or with permission of Instructor. | | | | |
| AGL298AA | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | Prerequisites: Permission of Program Director or Instructor. | Occ | | LAB 1.0 1.0 0.0 | Z |
| AGL298AB | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | Prerequisites: Permission of Program Director or Instructor. | Occ | | LAB 2.0 2.0 0.0 | Z |
| AGL298AC | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment | Prerequisites: Permission of Program Director or Instructor. | | | LAB 3.0 3.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | | | | | |
| AGS164 | 2021 Fall | Plant Growth and Development | | Principles of growth in relation to seed germination, emergence, growth and reproduction processes of plants and the environmental influences on plant growth processes. | Prerequisites: None. | | Occ | LEC 4.0 2.0 2.0 LAB 0.0 4.0 4.0 | T |
| AGS165AA | 2021 Fall | Fall Sustainable Crop Production | | Study of the importance of Fall-planted crops for food, feed, and fiber. Cultural practices for raising the major crops in the State of Arizona, including planting, environmental modifications, harvesting, handling and quality control with an emphasis on sustainability. | A grade of C or better required in all Prerequisites. Prerequisites or Corequisites: AGS164 or permission of Instructor. | | Occ | LEC 3.0 2.0 2.0 LAB 0.0 3.0 3.0 | T |
| AGS165AB | 2021 Fall | Spring Sustainable Crop Production | | Study of the importance of Spring-planted crops for food, feed, and fiber. Cultural practices for raising the major crops in the State of Arizona, including planting, environmental modifications, harvesting, handling and quality control with an emphasis on sustainability. | A grade of C or better required in all Prerequisites. Prerequisites or Corequisites: AGS164 or permission of Instructor. | | Occ | LEC 3.0 2.0 2.0 LAB 0.0 3.0 3.0 | T |
| AGS166 | 2021 Fall | Aquaponics | | Establishment, care, and selection of facilities for commercial production of animals and plants in a water-based closed system. | Prerequisites: None. | | Occ | LEC 3.0 2.0 2.0 LAB 0.0 3.0 3.0 | T |
| AGS168 | 2018 Fall | Grounds Equipment Management | | Selection, use and maintenance of grounds equipment, including both manual and power equipment. | Prerequisites: None. | | Occ | L+L 3.0 5.0 5.0 | T |
| AGS170 | 1992 Fall | Pesticides | | Chemistry and classification of pesticides. Interpret the use of pesticide labels | Prerequisites: None. | | Occ | LEC 0.5 0.5 0.5 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| AGS171 | 1992 Fall | Insect Identification | | Concepts of insect identification | Prerequisites: None. | | Occ | LEC 0.5 0.5 0.5 | S |
| AGS172 | 1992 Fall | Household Pests | | Problems associated with household pests | Prerequisites: None. | | Occ | LEC 0.5 0.5 0.5 | S |
| AGS173 | 1992 Fall | Wood Destroying Pests | | Problems associated with wood destroying pests | Prerequisites: None. | | Occ | LEC 0.5 0.5 0.5 | S |
| AGS174 | 1992 Fall | Regulations: Federal and State | | Federal and state pesticide regulations and guidelines for licensing pest control use | Prerequisites: None. | | Occ | LEC 0.5 0.5 0.5 | S |
| AGS175 | 1992 Fall | Pesticide Safety and Use of Equipment | | Federal and state pesticide safety regulations and use of equipment | Prerequisites: None. | | Occ | LEC 0.5 0.5 0.5 | S |
| AGS176 | 1992 Fall | Environment and Toxicology of Pesticides | | Environmental concepts, endangered species and toxicology associated with the use of pesticides | Prerequisites: None. | | Occ | LEC 0.5 0.5 0.5 | S |
| AGS177 | 1992 Fall | Aquatic Pest Control | | Aquatic ecosystems, pest organisms and their control | Prerequisites: None. | | Occ | LEC 0.5 0.5 0.5 | S |
| AGS178 | 1992 Fall | General Pest Control | | Arthropods and other pest organisms and their control | Prerequisites: None. | | Occ | LEC 0.5 0.5 0.5 | S |
| AGS179 | 1992 Fall | Terrestrial Weed Control | | Terrestrial weeds and their control | Prerequisites: None. | | Occ | LEC 0.5 0.5 0.5 | S |
| AGS182 | 2001 Summer I | Gardening Practices and Techniques | | Cultural practices of vegetables, fruits and ornamental plants as they relate to organic and inorganic gardening | Prerequisites: None. | | Occ | LEC 2.0 2.0 2.0 | S |
| AGS182AA | 2022 Fall | Gardening Practices and Techniques | | Cultural practices of vegetables, fruits and ornamental plants as they relate to organic and inorganic gardening. | Prerequisites: None. | AGS182AA may be repeated for credit. | Occ | LEC 3.0 1.0 1.0 LAB 0.0 4.0 4.0 | T |
| AGS183 | 2001 Summer I | Urban Plant Identification and Use | | Identification, growth, cultural requirements, uses, maintenance, and care of landscape trees, shrubs, vines and ground covers commonly used in Arizona | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| AGS183AA | 2001 Summer I | Urban Plant Identification and Use: Trees | | Emphasis on trees commonly used in cityscapes in the Southwest. Review of their origin, cultural requirements, uses, required maintenance, benefits and disadvantages. Identification, planting procedures, water and | Prerequisites: None. | | Occ | LEC 1.0 1.0 1.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | nutritional requirements are covered | | | | | |
| AGS183AB | 2001 Summer I | Urban Plant Identification and Use: Shrubs | | Emphasis on shrubs commonly used in cityscapes in the Southwest. Review of their origin, cultural requirements, uses, required maintenance, benefits and disadvantages. Identification, planting procedures, water and nutritional requirements are covered | Prerequisites: None. | | Occ | LEC 1.0 1.0 1.0 | S |
| AGS183AC | 2001 Summer I | Urban Plant Identification and Use: Vines, Flowers, Groundcovers | | Emphasis on groundcovers, annuals, perennials and vines commonly used in cityscapes in the Southwest. Review of their origin, cultural requirements, uses, required maintenance, benefits and disadvantages. Identification, planting procedures, water and nutritional requirements covered | Prerequisites: None. | | Occ | LEC 1.0 1.0 1.0 | S |
| AGS186 | 2018 Fall | Greenhouse Management and Construction | | Principles and practices of greenhouse operation; control of environmental factors and cultural practices affecting the production of greenhouse crops | Prerequisites: None. | | Occ | LEC 3.0 2.0 2.0 LAB 0.0 3.0 3.0 | T |
| AGS186AA | 1995 Fall | Greenhouse Management and Construction | | Principles and practices of greenhouse operation; control of environmental factors and cultural practices affecting the production of greenhouse crops | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| AGS187 | 1995 Fall | Indoor Foliage Plants | | Environmental and nutritional requirements for foliage plants used for interior decoration. Includes identification, nomenclature and uses | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| AGS188 | 2001 Fall | Arid Landscape Plants | | Provides information on currently propagated Xerophytes available in southern Arizona. Shows how each can be applied to specific desert landscape | Prerequisites: None. | | Occ | LEC 3.0 6.0 5.1 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | situations. Considers identification, cultural requirements, and physical characteristics related to landscape design | | | | | |
| AGS190 | 2000 Fall | Arid Land Plants Identification and Use | | Covers xerophytes common in southern Arizona and their applications to specific desert landscape situations. Identification, cultural requirements, and physical characteristics related to landscape design, including both mature plants and live containerized material | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| AGS192 | 2021 Fall | Urban Plant Care | | Establishment, care and preservation of ornamental trees, shrubs, vines, and ground cover plants used in landscape for human well-being and pleasure. | Prerequisites: None. | | Occ | LEC 3.0 2.0 2.0 LAB 0.0 3.0 3.0 | T |
| AGS192AA | 2001 Fall | Urban Plant Care: Site Analysis, Plant Selection and Requirements | | Establishment of ornamental trees, shrubs, vines, and ground cover plants used in landscape for human well-being and pleasure | Prerequisites: None. | | Occ | LEC 1.0 1.67 1.46 | S |
| AGS192AB | 2001 Fall | Urban Plant Care: Maintenance of Urban Plants | | Care of ornamental trees, shrubs, vines, and ground cover plants used in landscape for human well-being and pleasure | Prerequisites: None. | | Occ | LEC 1.0 1.67 1.46 | S |
| AGS192AC | 2001 Fall | Urban Plant Care: Diagnosing and Curing Plant Problems | | Preservation of ornamental trees, shrubs, vines, and ground cover plants used in landscape for human well-being and pleasure | Prerequisites: None. | | Occ | LEC 1.0 1.67 1.46 | S |
| AGS217 | 2022 Fall | Introduction to Hydroponics and Controlled Environment Agriculture | | Introduction to hydroponics and controlled environment agriculture. Includes a history of hydroponics and basic plant physiology and anatomy. Study of general cultural practices, plant protection, conventional and organic hydroponic production systems. pollination, | Prerequisites: A grade of C or better in AGS164, or permission of Instructor. | | Occ | LEC 4.0 2.0 2.0 LAB 0.0 4.0 4.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | fertilization and bee management. Provides an overview of plant nutrition and disorders, irrigation systems and nutrients transplant production. Covers greenhouse site selection, structures and control systems, fruit harvest; food handling, safety and marketing and economics of a hydroponic business. | | | | | |
| AGS255 | 2018 Fall | Plant Tissue Culture | | Plant tissue culture techniques for cloning, reproduction, and manufacturing including media mixing, cell growth and development, aseptic transfer, manipulation, observation, and documentation | Prerequisites: A grade of C or better in AGS164. | | Occ | L+L 3.0 5.0 5.0 | T |
| AGS260 | 2018 Fall | Soils | | Fundamental properties of the physical, chemical, and biological relation of soil to plant growth. Evaluation of the human impact on soil health. | Prerequisites: A grade of C or better in CHM130 or permission of Instructor. | Course Attribute(s): General Education Designation: Natural Sciences (Quantitative) - [SQ] | Occ | LEC 4.0 3.0 3.0 LAB 0.0 3.0 3.0 | T |
| AGS261 | 1998 Fall | Soil Fertility And Management | | Relationship of soils, crops, and climatic factors to economic use of commercial fertilizer | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| AGS262 | 2021 Fall | Irrigation Design, Installation, Operation, and Trouble Shooting | | Design, installation, maintenance and troubleshooting of sprinklers, drip, and flood systems. Use of time clocks, pumps, filters, backflow devices, and other equipment to deliver water to the landscape. Types of water and their use in the landscape. | Prerequisites: None. | | Occ | LEC 3.0 2.0 2.0 LAB 0.0 3.0 3.0 | T |
| AGS264 | 2018 Fall | Irrigation and Water Management | | Irrigation and drainage problems relating to pumps, motors, pipe lines, ditches and wells in the Southwest. Installation of sprinkler, drip and subirrigation, time clock installation and repair. Land | Prerequisites: None. | | Occ | LEC 3.0 2.0 2.0 LAB 0.0 3.0 3.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | measurement and principles of land leveling | | | | | |
| AGS265 | 2023 Fall | Sustainable Crop Production | | Study of the importance of crops for food, feed, and fiber. Cultural practices for raising the major crops in the State of Arizona, including planting, environmental modifications, harvesting, handling and quality control with an emphasis on sustainability. | A grade of C or better required in all Prerequisites. Prerequisites or Corequisites: AGS164 or permission of Instructor. | | Occ | LEC 3.0 2.0 2.0 LAB 0.0 3.0 3.0 | T |
| AGS266 | 1998 Fall | Urban Insect Control | | The interrelationship of plant organisms, animals and environments with insects as affected by soils, temperature, water and agricultural chemicals | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| AGS267 | 2018 Fall | Weeds and Plant Diseases of Arizona | | Weed identification, relationship to competition, cultural practices, prevention and chemical usage for control. General outline of plant autonomy and physiology relating to chemical usage of selectivity. Diseases of plants, their life cycles, biological interrelationships, identification, and control. | Prerequisites: None. | | Occ | L+L 3.0 5.0 5.0 | T |
| AGS268 | 2021 Fall | Integrated Pest Management in the Cultivated Environment | | Identification and management of pests of the garden, farm and landscape in the arid west. Special emphasis is given to safe handling of pesticides. | Prerequisites: None. | | Occ | LEC 4.0 2.0 2.0 LAB 0.0 4.0 4.0 | T |
| AGS282AA | 2013 Summer I | Service-Learning Experience in Agriculture | | Unpaid Service-Learning (SL) experience, completed with approved community partner. | Prerequisites: Permission of Instructor. | AGS282AA may be repeated for a total of six (6) credit hours. Standard grading available according to procedures outlined in catalog. | Occ | LAB 1.0 1.0 0.0 | L |
| AGS282AB | 2013 Summer I | Service-Learning Experience in Agriculture | | Unpaid Service-Learning (SL) experience, completed with approved community partner. | Prerequisites: Permission of Instructor. | AGS282AB may be repeated for a total of six (6) credit hours. Standard grading available according to procedures outlined in catalog. | Occ | LAB 2.0 2.0 0.0 | L |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| AGS282AC | 2013 Summer I | Service-Learning Experience in Agriculture | | Unpaid Service-Learning (SL) experience, completed with approved community partner. | Prerequisites: Permission of Instructor. | AGS282AC may be repeated for a total of six (6) credit hours. Standard grading available according to procedures outlined in catalog. | Occ | LAB 3.0 3.0 0.0 | L |
| AGS284 | 1995 Fall | Lawn and Turf Care | | Factors that affect the establishment and maintenance of turf grasses. Includes budgets, schedules and selection of equipment | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| AGS285 | 2018 Fall | Propagation of Horticultural Plants | | Principles and processes of propagation of crops using seed, budding, grafting, and cuttings in greenhouse structures and open ground | Prerequisites: None. | | Occ | LEC 3.0 2.0 2.0 LAB 0.0 3.0 3.0 | T |
| AGS285AA | 2018 Fall | Propagation of Horticultural Plants Structures Media and Management | | Design, maintenance and repair of greenhouse structures. Principles of plant propagation media and procedures. The processes involved in nursery management, including plant care, display, and marketing | Prerequisites: None. | | Occ | LEC 1.0 0.67 0.67 LAB 0.0 1.0 1.0 | T |
| AGS290 | 1997 Fall | Internship | | Supervised field training for Urban Horticulture students with local industry businesses. | Prerequisites: Student shall be in final semester before graduation and permission of Department or Division. | | | LAB 3.0 6.0 0.0 | P |
| AGS296WA | 2002 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or | Occ<br>Occ | | LAB 1.0 5.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | career interest or with permission of Instructor. | | | | |
| AGS296WB | 2002 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor. | | Occ | LAB 2.0 10.0 0.0 | Z |
| AGS296WC | 2002 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor. | | Occ | LAB 3.0 15.0 0.0 | Z |
| AGS296WD | 2002 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or | | Occ | LAB 4.0 20.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor. | | | | |
| AGS298AA | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | Prerequisites: Permission of Program Director or Instructor. | Occ | | LAB 1.0 1.0 0.0 | Z |
| AGS298AB | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | Prerequisites: Permission of Program Director or Instructor. | Occ | | LAB 2.0 2.0 0.0 | Z |
| AGS298AC | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of | Prerequisites: Permission of Program Director or Instructor. | | | LAB 3.0 3.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | | | | | |
| AHU245 | 2013 Spring | Arabic Culture and Islam | | A survey of Arab heritage in the Arab world (Middle East). Cultural and social institutions and their contribution to the development of the region and its heritage. | Prerequisites: None. | Course Attribute(s): General Education Designation: Global Awareness - [G] General Education Designation: Humanities, Arts and Design - [HU] | Acad | LEC 3.0 3.0 3.0 | S |
| AIM100 | 2020 Fall | Introduction to Artificial Intelligence | | Basic concepts and applications of artificial intelligence (AI), including AI project cycles. Focus on issues surrounding AI including ethics, bias, culture, regulations, and professional expectations. | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| AIM110 | 2020 Fall | Introduction to Machine Learning | | Introduction to machine learning concepts and Python applications, including data acquisition, supervised and unsupervised learning, and data modeling. | Prerequisites: A grade of C or better in AIM100, CIS156 and MAT206. | | Occ | L+L 3.0 4.0 4.0 | T |
| AIM210 | 2020 Fall | Natural Language Processing | | Fundamental concepts in Natural Language Processing (NLP) and text processing. Focus on knowledge and skills necessary to create a language recognition application. | Prerequisites: A grade of C or better in AIM110. | | | L+L 3.0 4.0 4.0 | T |
| AIM220 | 2020 Fall | Artificial Intelligence for Computer Vision | | Understand and apply the basic techniques to process images using OpenCV and Python libraries. | Prerequisites: A grade of C or better in AIM110. | | | L+L 3.0 4.0 4.0 | T |
| AIM230 | 2020 Fall | Artificial Intelligence for Business Solutions | | Fundamentals of artificial intelligence (AI) and machine | Prerequisites: A grade of C or better in AIM210 and AIM220. | Occ | Occ | L+L 3.0 4.0 4.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | learning to support business solutions. | | | | | |
| AIM240 | 2020 Fall | Artificial Intelligence Capstone Project | | Focus on how a social issue is explored, brought through the Artificial Intelligence (AI) Project cycle, and delivered as a solution using the different domains of AI, including computer vision and natural language processing. | Prerequisites: A grade of C or better in AIM210 and AIM220. | | Occ | L+L 3.0 4.0 4.0 | T |
| AIR160 | 2023 Fall | Reservation/Booking Procedures | | Overview of reservation/booking procedures. Includes use of availability displays, seating assignments, booking procedures, and fare rules as well as fare pricing and selling. Communication skills also covered. | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| AIR161 | 2023 Fall | Airline Reservations Systems | | Practical application of a travel booking procedures using a computerized reservations system. Covers codes, Passenger Name Record, booking, and reservations. | A grade of C or better required in all Prerequisites. Prerequisites or Corequisites: AIR160 or permission of Instructor. | | Occ | L+L 2.0 3.0 3.0 | T |
| AIR163 | 2023 Fall | Advanced Airline Reservations | | Rules, restrictions, and procedures for handling special reservations situations and managing codeshare accounts and award plans. Also includes international travel procedures and partner carriers. | A grade of C or better required in all Prerequisites. Prerequisites or Corequisites: AIR160 or permission of Instructor. | | Occ | L+L 2.0 3.0 3.0 | T |
| AIR165 | 2023 Fall | Overview of Flight Schedules/Itineraries | | Basic reservation information including flight schedules, itineraries, and fares. Handling travel agent calls also covered. | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| AIR170 | 2009 Summer I | International Air Transport Association Geography | | Overview of world geography according to the International Air Transport Association (IATA). Includes world traffic area divisions, sub areas and office responsibilities. Also covers atlas reading including location of countries, major | Prerequisites: None. | | Occ | LEC 1.0 1.0 1.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | cities and grids in addition to use of city codes. | | | | | |
| AIR171 | 2009 Summer I | International Air Transport | | International air reservations procedures. Includes Passenger Name Record (PNR) creation and modification as well as use of availability displays and international itineraries. Covers preferred programs and partnerships. | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| AIR172 | 2009 Summer I | International Fares | | Overview of international fares. Includes fare basis codes, combinability and construction. Also covers transpacific routing and electronic tickets as well as procedures for completing international reissues. | Prerequisites: None. | | Occ | LEC 1.0 1.0 1.0 | S |
| AIR173 | 2018 Fall | International Air Transport Lab | | Practical application of international air reservations procedures. Includes Passenger Name Record (PNR) creation and modification as well as use of availability displays and international itineraries. | Prerequisites: None. | | Occ | LAB 2.0 6.0 6.0 | T |
| AIS101 | 2013 Summer I | Survey of American Indian Issues | | Introduction to critical issues related to American Indian peoples. Examines cultural, political, economic, educational, social, and environmental issues. Focuses on contemporary issues and factors influencing American Indian communities. | Prerequisites: None. | Course Attribute(s): General Education Designation: Cultural Diversity - [C] General Education Designation: Social and Behavioral Sciences - [SB] | Acad | LEC 3.0 3.0 3.0 | S |
| AIS103 | 2019 Summer | Introduction to Indigenous Cultures | | Introduction to political, economic and social structures of indigenous peoples. Examines the impact on indigenous peoples of contact with non-indigenous cultures. | Prerequisites: None. | | Acad | LEC 1.0 1.0 1.0 | S |
| AIS105 | 2013 Summer I | Introduction to American Indian Studies | SOC105 | Introduction to political, economic, and social structures of American Indian | Prerequisites: None. | | Acad | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Nations. Provides overview of American Indian tribal cultures prior to contact, the impact of European contact, and the influence of western social systems on tribal nations. | | | | | |
| AIS110 | 2006 Fall | Navajo Government | | Addresses and examines major historical developments of the Navajo People with a focus on government, law, society, livelihood, tradition, and culture. Includes the major components and operation of Navajo government and related tribal laws, such as Title II and Title VII of the Navajo Nation Code, as well as the significance of the Treaty of 1868. Federal Indian policies and their impact on Navajo society and government, the importance of federal and tribal citizenship and related federal and tribal laws, and the role of the Navajo clanship system and other relevant cultural concepts addressed | Prerequisites: None. | Course Attribute(s): General Education Designation: Cultural Diversity - [C] General Education Designation: Historical Awareness - [H] | Acad | LEC 3.0 3.0 3.0 | S |
| AIS112 | 1999 Spring | American Indian Policy | SOC112 | Reviews United States government policies and their impact on American Indian sovereignty. Examines historic, legal, economic, and social issues regarding Indian policies and how they impact Indian Nations and individual Indians. Studies historical as well as contemporary policies created by the Federal Government that define the trust relationship between the United States government and Indian Nations | Prerequisites: None. | | Acad | LEC 3.0 3.0 3.0 | S |
| AIS113 | 2023 Fall | Proposal Writing | | Provides an overview of funding sources for grants. Reviews techniques and skills | Prerequisites: A grade of C or better in ENG101 or ENG107. | | Acad | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | necessary to develop successful proposals. Focuses on the design and writing of a complete grant proposal related to a selected problem or issue. | | | | | |
| AIS140 | 2023 Fall | American Indian History | HIS140 | Survey of American Indian history with emphasis on the last 200 years. Focuses on cultural, economic, political and social continuity and changes. Topics include how federal policies impacted and were shaped by Indigenous peoples and how Indigenous individuals, communities, and nations have maintained cultural identity and sovereignty. | Prerequisites: None. | | Acad | LEC 3.0 3.0 3.0 | S |
| AIS141 | 2003 Spring | Sovereign Indian Nations | SOC141 | Explores the sovereign status of American Indians as it relates to social relationships, traditions, and culture of American Indians. Reviews historic relations with non-Indian societies, the development of federal Indian law, tribal governments and their functions. Examines treaty rights, environmental issues, public policy, economic development, other current issues, and contemporary social problems | Prerequisites: None. | Course Attribute(s): General Education Designation: Cultural Diversity - [C] General Education Designation: Historical Awareness - [H] General Education Designation: Social and Behavioral Sciences - [SB] | Acad | LEC 3.0 3.0 3.0 | S |
| AIS160 | 2017 Summer | American Indian Law | SOC160 | Analyzes the legal system of the United States Government as it applies to American Indian Nations. Examines how United States legal institutions have impacted Indian sovereignty. Units of analysis include the development of Indian law, United States Supreme Court decisions, Congressional Acts, treaty rights and the development of | Prerequisites: None. | Course Attribute(s): General Education Designation: Cultural Diversity - [C] General Education Designation: Historical Awareness - [H] | Acad | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | tribal governments. Focuses on legal institutions that have abridged the property rights of Indian Nations. | | | | | |
| AIS170 | 2023 Spring | American Indian History of the Southwest | HIS170 | Covers history of American Indian Peoples of the Southwestern United States from pre-European contact era to the present. Includes historical events, the development and implementation of non-Indigenous policies and their impact on American Indian Peoples in these areas, and contemporary issues of importance. | Prerequisites: None. | | Acad | LEC 3.0 3.0 3.0 | S |
| AIS201 | 2023 Fall | Indigenous Nation Building | | Discussion of the relationship between general management issues and their specific application to tribal government situations. Special consideration given to application of management theory and to the unique status and situation of tribal governments. | Prerequisites: None. | | Acad | LEC 3.0 3.0 3.0 | S |
| AIS203 | 2023 Fall | Fundamentals of Economic Development for Indigenous Nations | | Provides a practical understanding of the economic development process. Examines ways in which development can be initiated and financed. Focuses on how budget systems can be used as management tools. Reviews fundamentals of proposal writing and budget management for grants. | Prerequisites: None. | | Acad | LEC 3.0 3.0 3.0 | S |
| AIS213 | 2013 Summer I | American Indian Religions | REL203 | An examination of the historical and cultural background of diverse lifeways and worldviews belonging to the peoples indigenous to the North American continent over time, | Prerequisites: A grade of C or better in ENG101, or ENG107, or equivalent. | Course Attribute(s): General Education Designation: Cultural Diversity - [C] General Education Designation: Humanities, Arts and Design - [HU] General Education | Acad | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | including a study of modern day American Indian beliefs and practices. | | Designation: Literacy and Critical Inquiry - [L] | | | |
| AIS261 | 2024 Fall | Indigenous Women's Literature of the Americas | ENH/WST261 | Explores contemporary voices of Indigenous women authors and artists in the Americas as expressed in poetry, fiction, nonfiction, drama, and oral traditions. Focuses on themes relevant to Indigenous women and examines the trends and movements within Indigenous peoples and women's literary history. Examines themes relevant to Indigenous women such as racial and gender oppression, reservation life, acculturation, and their sociopolitical activism in the Americas. | Prerequisites: A grade of C or better in ENG101 or ENG107. | | Acad | LEC 3.0 3.0 3.0 | S |
| AIS282AA | 2008 Spring | Volunteerism for Indigenous Studies | | Service-learning field experience within private/public agencies, educational institutions, and citizen volunteer groups. | Prerequisites: Permission of Instructor. | AIS282AA may be repeated for a total of six (6) credit hours. | Acad | LAB 1.0 1.0 0.0 | L |
| AIS282AB | 2008 Spring | Volunteerism for Indigenous Studies | | Service-learning field experience within private/public agencies, educational institutions, and citizen volunteer groups. | Prerequisites: Permission of Instructor. | AIS282AB may be repeated for a total of six (6) credit hours. | Acad | LAB 2.0 2.0 0.0 | L |
| AIS296WA | 2023 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. | Prerequisites: Completion of at least twelve (12) college credits, minimum 2.6 grade point average, and be able to obtain a position related to student's academic or career goals (student's present job may qualify); or permission of instructor. Corequisites: Must be concurrently enrolled in at least one class which is related to student's | Acad | | LAB 1.0 5.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | major or career interest or with permission of the Instructor. | | | | |
| AIS296WB | 2023 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. | Prerequisites: Completion of at least twelve (12) college credits, minimum 2.6 grade point average, and be able to obtain a position related to student's academic or career goals (student's present job may qualify); or permission of instructor. Corequisites: Must be concurrently enrolled in at least one class which is related to student's major or career interest or with permission of the Instructor. | | Acad | LAB 2.0 10.0 0.0 | Z |
| AIS296WC | 2023 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. | Prerequisites: Completion of at least twelve (12) college credits, minimum 2.6 grade point average, and be able to obtain a position related to student's academic or career goals (student's present job may qualify); or permission of instructor. Corequisites: Must be concurrently enrolled in at least one class which is related to student's major or career interest or with permission of the Instructor. | | Acad | LAB 3.0 15.0 0.0 | Z |
| AIS296WD | 2023 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome | Prerequisites: Completion of at least twelve (12) college credits, minimum 2.6 grade point average, | | | LAB 4.0 20.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | related to the career objectives of the students. | and be able to obtain a position related to student's academic or career goals (student's present job may qualify); or permission of instructor. Corequisites: Must be concurrently enrolled in at least one class which is related to student's major or career interest or with permission of the Instructor. | | | | |
| AIS298AA | 2023 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | Prerequisites: Permission of Program Director or Instructor. | | Acad | LAB 1.0 1.0 0.0 | Z |
| AIS298AB | 2023 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | Prerequisites: Permission of Program Director or Instructor. | | Acad | LAB 2.0 2.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| AIS298AC | 2023 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | Prerequisites: Permission of Program Director or Instructor. | | Acad | LAB 3.0 3.0 0.0 | Z |
| AIT100 | 2022 Fall | Industrial Safety | | Introductory course in workplace safety training, including an overview of critical safety policies, procedures, and practices that help prevent injuries and keep the workplace safe and productive. | Prerequisites: None. | | Occ | LEC 1.0 1.0 1.0 | S |
| AIT101 | 2022 Fall | Introduction to Industrial Automation | | Introductory course in manufacturing automation systems and technologies. Includes safety practices, quality measurement, print reading, machine operation, hand tool usage, and maintenance operations. | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 LAB 0.0 2.0 2.0 | T |
| AIT105 | 2022 Fall | Modern Maintenance Operations | | Introductory course into the practice of modern maintenance operations. Includes: safely and correctly using maintenance tools (e.g., hand tools, power tools), measuring instrumentations (e.g., tape, caliper, micrometer) and reading various engineering documents (e.g., blueprints, flowcharts, parts diagrams). Use and convert units in System International (SI) and | Prerequisites: None. | | Occ | LEC 3.0 2.0 2.0 LAB 0.0 3.0 3.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | imperial. Basic discussion of industrial safety procedures, machine operations, troubleshooting, failure analysis, modern maintenance principles, rigging, workplace organization, and records keeping. | | | | | |
| AIT110 | 2022 Fall | Mechanical Power Transmission Systems | | Introductory course in how to transmit, measure, calculate, and work safely with rotational mechanical equipment. Hands-on assembly, alignment, maintenance, and troubleshooting of mechanical power transmission systems and components e.g., belts, bearings, chains, dynamometers, gears, pulleys, couplings, bushings, and sprockets. Introduction to lubricant and grease types, their standards, safety, and application. | Prerequisite: None. | | Occ | LEC 3.0 2.0 2.0 LAB 0.0 3.0 3.0 | T |
| AIT115 | 2022 Fall | Hydraulic Systems | | Introductory course in the principles of hydraulic system operation, components construction, maintenance, troubleshooting, and operation, as well as the role of the individual components in an operating hydraulic system. Includes hydraulic fitting and seals, accumulators, cylinders, directional control valves (DVC), relief valves, check valves, pumps, filters, hoses, and a variety of hydraulic control circuits. | Prerequisites: None. | | Occ | LEC 3.0 2.0 2.0 LAB 0.0 3.0 3.0 | T |
| AIT120 | 2022 Fall | Pneumatic Systems | | Introductory course in the principles of pneumatic system operation, components construction, maintenance, troubleshooting, and operation, as well as the | Prerequisites: None. | | Occ | LEC 3.0 2.0 2.0 LAB 0.0 3.0 3.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | role of the individual components of an operating pneumatic system. Includes pneumatic fitting, seals, accumulators, actuator/cylinders, Directional Control Valves (DCV), manifolds, relief valves, check valves, pumps, filters, regulators, dryers, and common pneumatic control circuits. | | | | | |
| AIT123 | 2021 Spring | J-STD Soldering Certification | | This course will prepare the successful student to receive the "Certified IPC Specialist" (CIS) certification from The Institute for Interconnecting and Packaging Electronic Circuits (IPC) in "Requirements for Soldered Electrical and Electronic Assemblies" (IPC J-STD-001). Topics covered and skills to be demonstrated are: soldered wires and terminals, through hole connections, surface mount components, and inspection. Certification is verified by a certified IPC trainer (CIT). | Prerequisites: Permission of Instructor. | | Occ | L+L 3.0 4.0 4.0 | T |
| AIT124 | 2021 Spring | Composites | | Basic composite materials, construction, and repair. Manufacturing methods and equipment. Assessment and repair of composite structures using vacuum bagging and other approved procedures. Corrosion control, electrical bonding, materials substitutions, machining of composite components, mold fabrication. Hot bond repair of composite components including complex shapes and varied materials. | Prerequisites: None. | | Occ | L+L 3.0 4.0 4.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| AIT125 | 2022 Fall | DC and AC Components and Circuits | | An introductory course in Alternating Current (AC) and Direct Current (DC) electric theory. Includes electric circuits using resistors, capacitors and inductors. Also includes solenoids, relays, transformers, basic DC and AC motors, circuit protection devices and a variety of switches. | Prerequisites: None. | | Occ | LEC 3.0 2.0 2.0 LAB 0.0 3.0 3.0 | T |
| AIT128 | 2019 Summer | A-620 Cable and Wire Harness Assembly Certification | | This course will prepare the successful student to receive the "Certified IPC Specialist" (CIS) certification from The Institute for Interconnecting and Packaging Electronic Circuits (IPC)/Wire Harness Manufacturer's Association (WHMA) in "Requirements and Acceptance for Cable and Wire Harness Assemblies" (IPC/WHMA-A-620 Certification). Topics covered and skills to be demonstrated are: soldered terminations, crimp terminations, insulation displacement terminations (IDC), splices, connectorization, marking/labeling, coaxial cable assemblies, electrical shielding, wire marking and labeling, and testing methodologies. Certification is verified by a certified IPC trainer (CIT). | Prerequisites: None. | | Occ | L+L 3.0 4.0 4.0 | T |
| AIT130 | 2019 Fall | Maintenance Piping | | Overview of the area of maintenance of piping systems for manufacturing or industrial facilities. Preparation to sit for the NIMS Duty Area 9: Maintenance Piping Certification Exam. | Prerequisites: None. | | Occ | LEC 3.0 2.0 2.0 LAB 0.0 3.0 3.0 | T |
| AIT132 | 2022 Spring | Industrial Technology for the Semiconductor Industry | | Introduction to semiconductor manufacturing concepts, | Prerequisites: None. | | Occ | L+L 3.0 4.0 4.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | processes, and hands-on application. Includes electrical theory, circuits, schematics, hand tools, safety, clean room protocols, model based problem solving, lean manufacturing, vacuum technology, and troubleshooting. | | | | | |
| AIT205 | 2022 Fall | Power Electronics and Variable Frequency Drives | | Introductory course in AC and DC power electronic theory. Includes power supplies, power conditioning, solid-state power devices, and power control circuits. Also includes proximity sensors, analog thermal sensors, control feedback loops, and the setup and operation of Variable Frequency Drives (VFDs). | Prerequisites: A grade of C or better in AIT125, or permission of Instructor. | | | LEC 3.0 2.0 2.0 LAB 0.0 3.0 3.0 | T |
| AIT210 | 2022 Fall | Programmable Logic Controller Programming and Troubleshooting | | Introductory course in Programmable Logic Controller (PLC) Ladder Logic programming and troubleshooting PLC connected components and systems. Also includes basic Human Machine Interface (HMI) navigation, connecting to a PLC, and program downloading. | Prerequisites: A grade of C or better in AIT125, or permission of Instructor. | Occ | | LEC 3.0 2.0 2.0 LAB 0.0 3.0 3.0 | T |
| AIT215 | 2022 Fall | Process Control Systems | | Introductory course in Process Control Systems design, operation, and tuning of Proportional, Integral, Derivative (PID) controllers for regulating flow, temperature, pressure, and level of industrial process variables. Includes manual control, feedback control, automated controls, analysis process setup, operate, and troubleshooting processes of control systems. Also includes typical Pipe and Instrument | Prerequisites: A grade of C or better in AIT125, or permission of Instructor. | Occ<br>Occ | | LEC 4.0 2.0 2.0 LAB 0.0 4.0 4.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Diagram (P&IDs) symbols and tags along with the development of a basic P&ID drawing. | | | | | |
| AIT225 | 2022 Fall | Industrial Motors and Motor Control | | An introductory course in DC, single-phase AC, and 3-phase AC electric motors and motor control circuits. Includes electric motor control circuit components, motor control circuit applications, sequence circuits, and timer circuits. | Prerequisites: A grade of C or better in AIT125, or permission of Instructor. | | Occ | LEC 3.0 2.0 2.0 LAB 0.0 3.0 3.0 | T |
| AIT250 | 2019 Fall | Automated Industrial Technology Capstone | | An examination of the integration of mechanical, hydraulic, pneumatic, electrical, piping, electronic control, and process control systems. Experience in designing, building, maintaining, troubleshooting, and repairing such integrated systems will be gained. | Prerequisites: A grade of C or better in AIT225, or permission of Instructor or Corequisites: AIT225. | | | LEC 3.0 2.0 2.0 LAB 0.0 3.0 3.0 | T |
| AIT270 | 2022 Spring | Robotics I | | Fundamental principles of working safely with robots, and applications and trends in industrial robotics. Includes types of robots, axes and coordinate systems, programming and operating robots. Incorporates end effectors and collaborative robots. | A grade of C or better required in all Prerequisites. Prerequisites or Corequisites: AIT100 or permission of Instructor. | Occ | Occ | LEC 3.0 2.0 2.0 LAB 0.0 2.0 2.0 | T |
| AIT275 | 2020 Fall | Robotics II | | Intermediate principles of working safely with robots; robot auxiliary, subsystems, and components. Includes robot maintenance, troubleshooting and repair. Integrates a basic robot design project. | Prerequisites: A grade of C or better in AIT270. | | | LEC 3.0 2.0 2.0 LAB 0.0 2.0 2.0 | T |
| AIT276 | 2020 Fall | Robotics Operations and Programming | | This course is intended for an operator, technician, or programmer who must setup, record and/or troubleshoot programs on a Handling Tool software package. The course | Prerequisites: A grade of C or better in (ATP190, ATP201, and ATP205) or permission of Instructor. | Occ | Occ | L+L 3.0 6.0 6.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | covers the Robot Operations intermixed with the tasks required to set up the Handling Tool application, test run, and refine the program and production setup. | | | | | |
| AIT280 | 2022 Fall | Industry 4.0 and Industrial Control Systems | | Introductory course in Industry 4.0, physical processes within factories, and the virtualization techniques and intelligent decision making capabilities. Includes Cyber-Physical Systems (CPS), Supervisory Control and Data Acquisition (SCADA), Distributed Control Systems (DCS), Smart Factories, lean manufacturing, and the Internet of Things (IOT). Also includes an introduction and setup of SCADA software. | Prerequisites: A grade of C or better in AIT125, or permission of Instructor. | | Occ | LEC 3.0 2.0 2.0 LAB 0.0 3.0 3.0 | T |
| AIT285 | 2022 Fall | Sensors and Data Acquisition | | Introductory course in sensors and data acquisition. Includes sensor types, function, installation, adjustment, and maintenance. Also includes a brief overview of sensor signal conditioning, data acquisition configuration, chart recorder operation, and data storage. | Prerequisites: A grade of C or better in AIT125, or permission of Instructor. | | Occ | LEC 3.0 2.0 2.0 LAB 0.0 3.0 3.0 | T |
| AIT291 | 2019 Fall | Automated Industrial Technology Internship | | Supervised work experience in production environments. Includes experiences in maintenance, troubleshooting, repair of production environment and specific manufacturing processes. Also includes experiences in problem solving; working as a team; soft skills; time and resource management; and exposure to specific manufacturing processes. | Prerequisites: A grade of C or better in AIT225, or permission of Instructor or Corequisites: AIT225. | | | LAB 3.0 6.0 0.0 | C |
| AIT298AA | 2022 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured | Prerequisites: Permission of Program Director or Instructor. | Occ | Occ | LAB 1.0 1.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. | | | | | |
| AIT298AB | 2022 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. | Prerequisites: Permission of Program Director or Instructor. | Occ | | LAB 2.0 2.0 0.0 | Z |
| AIT298AC | 2022 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. | Prerequisites: Permission of Program Director or Instructor. | Occ | | LAB 3.0 3.0 0.0 | Z |
| AJS100 | 2016 Summer | Police Academy Preparation | | Preparation for individuals entering a police academy as well for those who are in the beginning stages of preparing | Prerequisites: None. | | Occ | LEC 2.0 2.0 2.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | for a career in law enforcement. Includes principles of policing and job responsibilities. Covers expectations of recruits in the areas of academics, physical fitness, mental and emotional preparation. Emphasis on professional and ethical behavior. | | | | | |
| AJS101 | 2018 Summer | Introduction to Criminal Justice | | An introduction to crime and society's responses to it. Examines the nature and causes of crime, the criminal law, constitutional safeguards, and the organization and operation of the criminal justice system including the police, courts, jails, prisons, probation and parole departments, and community corrections agencies. Covers the history of the criminal justice system, terminology and career opportunities. | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| AJS107 | 1998 Spring | Patrol Procedures | | Specialized areas of the patrol function, including responding to crowds, riots, bomb threats, intoxication, hazardous materials, fires, and domestic disputes. Partially fulfills Arizona POST (Peace Officer Standards and Training) requirements for proficiency skills academy attendance | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| AJS109 | 2020 Fall | Substantive Criminal Law | | Covers philosophy of legal sanctions and historical development from the common law to modern American criminal law, classifications of crimes, elements of and parties to crimes, general definition of crimes, common defenses utilized. Includes specific | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | offenses and the essential elements of each offense. | | | | | |
| AJS110 | 1997 Fall | Law and Legal Review I | | In-depth study of the Arizona laws governing arrest by peace officers, as well as, an intensive study of the Arizona substantive criminal law code (ARS Title 13). Focuses on specific sections of ARS Title 4 and ARS Title 8, as they apply to peace officers in Arizona. Partially fulfills the Arizona POST (Peace Officer Standard and Traiining) Board requirements for Proficiency Skills Academy attendance | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| AJS112 | 2018 Fall | Wellness for Law Enforcement Officers | | The value of physical fitness in law enforcement and the basic elements of strength training, aerobic conditioning, flexibility, nutrition, and back injury prevention | Prerequisites: None. | | Occ | L+L 3.0 3.0 3.0 | T |
| AJS113 | 2023 Fall | Criminal Justice Crime Control Policies and Practices | | Focus on changing the distribution of crime opportunities rather than offender motivation. Topics include application of situational crime prevention strategies, problem-oriented crime control approaches, hot spots policing, and crime prevention through environmental design. | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| AJS115 | 2020 Fall | Community Emergency Response Team (CERT): Level I | FSC115 | Basic skills, including instruction in teamwork and disaster simulations, needed to help oneself, family, and neighbors in the event of a community disaster in accordance with the Federal Emergency Management Agency (FEMA) guidelines. | Prerequisites: None. | | Occ | LEC 1.5 1.5 1.5 | S |
| AJS116 | 2009 Fall | Crime Prevention | | Examines the principles and skills associated with crime prevention. Analyzes the appropriate techniques and | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | strategies police agencies use to operate crime prevention programs. | | | | | |
| AJS119 | 2018 Fall | Computer Applications in Justice Studies | | Provides literacy in microcomputer applications in major areas of the criminal justice system. Examines availability and uses of current software packages in criminal justice work. Provides hands-on experience with appropriate integrated software packages pertaining to justice studies. | Prerequisites: None. | | Occ | L+L 3.0 4.0 4.0 | T |
| AJS123 | 2018 Summer | Ethics and the Administration of Justice | | Introduces and explores ethical issues and the justice system. Focuses on ethics and the law, the police, courts and corrections. Reviews ethical theory, concepts and practices as they relate to administration of justice. Explores issues of how media/social media shape ethics. Encourages critical thinking and value decision making in criminal justice system situations. | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| AJS124 | 1996 Spring | Correctional Institutions | | An examination of correctional institutions with an emphasis on personnel and security measures, care and treatment programs and institutional planning. The criminal justice system and matters of custody and treatment. Inmate subcultures, and organized crime in correctional institutions and jails | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| AJS131 | 1996 Spring | Police Management Techniques I | | Police supervisory techniques for planning, organization, coordination, reporting, budgeting and handling related personnel problems | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| AJS132 | 2002 Spring | Police Management Techniques II | | Management of police personnel including selections | Prerequisites: A grade of C or better in AJS131 | | | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | procedures, disciplinary practices, public relations, elements of supervision, service ratings, recruiting and probation, and related personnel problems | or permission of Instructor. | | | | |
| AJS137 | 2021 Fall | Public Safety Dispatcher: Basic | | Designed to provide in-depth orientation and standardized training of public safety dispatchers within the law enforcement community and familiarize the student with the skills and information important to functioning in a competent, ethical, and professional manner. | Prerequisites: None. | | Occ | LEC 5.0 5.0 5.0 | S |
| AJS139 | 2020 Fall | Emergency Response to Terrorism | FSC139 | Fundamentals of emergency response to suspected terrorist events. Historical perspective of terrorist activities and methods by which responders can identify and protect themselves and the public from these threats. Coordination of responding agencies. | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| AJS140AA | 1999 Fall | Patrol Rifle Concepts | | Pre-law enforcement employment course relating to how rifles are used in the patrol function | Prerequisites: None. | | Occ | LEC 1.0 1.0 1.0 | S |
| AJS145 | 2018 Fall | Criminal Justice System Experiences | | Examines the purpose, organization, operation, and employment opportunities of various criminal justice agencies including police departments, crime labs, morgues, courts, juvenile detention facilities, jails, prisons, parole boards, and halfway houses. Includes tours of a variety of criminal justice facilities | Prerequisites: None. | | Occ | L+L 3.0 3.0 3.0 | T |
| AJS146 | 2021 Fall | Disaster Recovery Operations | FSC146 | Specialized knowledge and skills for the emergency manager in developing programs and activities | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | associated with disaster recovery assistance and mitigation actions that reduce losses from future disasters. | | | | | |
| AJS147 | 2020 Fall | Emergency Preparedness | FSC147 | Emergency preparedness related to natural and manmade disasters. Planning concepts and the planning process; awareness and education programs and strategies for the general community as well as business and industries. | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| AJS148 | 2020 Fall | Fundamentals of Emergency Management | FSC148 | Emergency management systems including career opportunities, function, tasks and responsibilities of the emergency management program manager, role of the emergency manager in mitigation, preparedness, response, and recovery. Past civil defense and current emergency management systems since evolution from World War II. | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| AJS149 | 2020 Fall | Hazard Mitigation | FSC149 | Knowledge and skills required to develop programs to reduce losses from future disasters, emergencies, and other extreme events caused by natural and man-made hazards. | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| AJS150 | 1995 Spring | Defensive Tactics | | Skills in the protection against persons armed with dangerous and deadly weapons, demonstration and drill in a limited number of holds and come-alongs, and restraint of prisoners and the mentally ill. | Prerequisites: None. | AJS150 may be repeated for a total of three (3) credit hours | Occ | LEC 1.0 1.0 1.0 | S |
| AJS151 | 2018 Fall | Firearms I | | Moral aspects, legal provisions, safety precautions and restrictions covering the use of firearms, and the firing of sidearms. | Prerequisites: None. | | Occ | L+L 1.0 1.0 1.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| AJS152 | 1996 Summer I | First Aid | | Methods for providing emergency medical care to victims of accidents or illness and related safeguards. Includes legal and civil issues, basic functions and major organs of the human body, injury management, resuscitation, movement and extrication of victims | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| AJS153 | 2018 Fall | Firearms II/Handguns | | Advanced familiarization with handguns. Variations of basic shooting stance. Legal and moral repercussions of self-defense. Includes range practice. | Prerequisites: A grade of C or better in AJS151 or equivalent certified firearms training as reviewed by the Department. | | | L+L 1.0 1.0 1.0 | T |
| AJS154 | 2018 Fall | Firearms III/Long Weapons | | Familiarization with different types of long weapons and associated ammunition. Emphasis on safety techniques for use and storage of weapons. Limited use of range for practice | Prerequisites: None. | | Occ | L+L 1.0 1.0 1.0 | T |
| AJS155 | 2018 Fall | Concealed Weapons Carry | | Training in safe handling and use of handguns. Examines legal provisions related to carrying a concealed weapon; legal and moral implications of self-defense | Prerequisites: None. | Occ | Occ | L+L 2.0 2.0 2.0 | T |
| AJS156 | 2018 Fall | Home and Vehicle Personal Defense | | Development of personal safety plans, confrontation avoidance, and effective self-defense tactics. Legal and safe use of firearms. Includes range practice | Prerequisites: A grade of C or better in AJS151 or permission of Instructor. | | Occ | L+L 1.0 1.0 1.0 | T |
| AJS162 | 2012 Summer I | Domestic Violence | | Explores domestic violence as a social problem within the United States from historical, cultural, political, legal, and law enforcement perspectives. Provides an overview of theories, definitions and causes of, and interventions for domestic violence involving spousal, elder and child abuse along with teen dating | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | violence. Examines the dynamics and effects of domestic violence. Addresses research issues and contemporary domestic violence policy | | | | | |
| AJS170 | 2011 Fall | Fire and Arson Investigation for Law Enforcement | | An examination of fire and arson investigative techniques along with the motives and pathology of the arsonist and the chemistry of fire. Other topics include documenting the scene, evidence, eliminating accidental causes and surveillance. | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| AJS191 | 2007 Summer I | Hate Crimes | | Explores the causes, incidence rates and forms of hate crimes in the United States and other countries. Studies hate crime laws and the Constitution. Examines the impact of hate crimes on society, culture and the law. Considers societal responses to combat and prevent hate crimes | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| AJS192 | 2005 Summer I | Serial Killers and Mass Murderers | | The study of serial killers, mass murderers and their victims. Examines the history and frequency of these crimes, profiles the killers and their victims, explores theories of causation, and discusses the problems and techniques of investigation, prosecution, punishment, and prevention | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| AJS195 | 2002 Summer I | International and Domestic Terrorism | | An overview of the history, structure, goals, and activities of domestic and international terrorist groups. Explores theories explaining terrorism and reviews methods used to combat it | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| AJS198AB | 2023 Fall | Special Topics in the Administration of Justice | | Explores special topics related to the administration of justice | Prerequisites: None. | AJS198AB may be repeated for a total of nine (9) credit hours. | Occ | LEC 1.0 1.0 1.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | with an emphasis on current issues. | | | | | |
| AJS198AF | 2023 Fall | Special Topics in the Administration of Justice | | Explores special topics related to the administration of justice with an emphasis on current issues. | Prerequisites: None. | AJS198AF may be repeated for a total of nine (9) credit hours. | Occ | LEC 3.0 3.0 3.0 | S |
| AJS200 | 2018 Summer | Current Issues in Criminal Justice | | Examines current issues, techniques and trends in the Criminal Justice System. | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| AJS201 | 2018 Fall | Rules of Evidence | | A practical insight into the rules of evidence to include how to recognize evidence: the general rules governing admissibility of evidence; the hearsay rule and its exceptions; the use of documentary evidence, written memoranda, photographs, recordings and electronic surveillance; corpus delicti; opinion evidence, circumstantial evidence, evidential privileges. | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| AJS205 | 2019 Summer | Effective Communication and Report Writing in Criminal Justice | | Overview of effective communication for criminal justice agencies. Covers the communication process and flow. Written communication emphasized with report writing, including characteristics of reports and field notes, and the importance and uses of each. Form, style, and procedures for writing various reports, including elements of composition, required substance, proper and improper conclusions, and descriptions of persons and property. | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| AJS210 | 1995 Fall | Constitutional Law | | An examination of the U.S. Constitution as it relates to the law enforcement function. Includes statutory law and judicial decisions governing | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | the areas of arrest, search and seizure, interrogations and confessions, self-incrimination and other constitutional guarantees. Required in AJS curriculum | | | | | |
| AJS211 | 1996 Fall | Police Planning | | An analysis of the process of planning, and a descriptive study of logical and systematic approaches to strategic, short-range, operational, organizational and tactical planning within a law enforcement organization | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| AJS212 | 2023 Fall | Juvenile Justice Procedures | | Examines the nature and extent of juvenile delinquency to the present. Including but not limited to the history, jurisdictions, terminology, procedures, and institutions of the juvenile justice system. | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| AJS213 | 2023 Fall | Evidence Technology: Fingerprints | | Covers the fundamental principles of fingerprints, including the history of fingerprint classification, the biology of friction ridge skin, pattern analysis, comparison, and identification as well as their application in significant court cases. Also includes techniques for obtaining inked prints and developing and preserving latent prints. | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| AJS213AB | 2023 Fall | Fingerprint Classification I | | Identification of typelines, deltas, and cores. Rules for classification of loops, whorls, and arches. | Prerequisites: None. | | Occ | LEC 1.0 1.0 1.0 | S |
| AJS214 | 2001 Fall | Evidence Technology/Photography | | The use of photography and other aids in identification and preservation of evidence such as fingerprints, footprints and impressions. Techniques in crime scene and traffic accident photography | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| AJS215 | 2000 Fall | Criminalistics: Physical Evidence | | The scientific analysis and examination of physical | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | evidence with emphasis on scientific investigation, recognition, collection, and preservation of evidence. Topics include fingerprints, shoe prints, tool marks, firearms identification, paint chips and arson | | | | | |
| AJS216 | 2000 Fall | Criminalistics: Biological Evidence | | The scientific analysis and examination of biological evidence with emphasis on collection and preservation of evidence. Topics discussed include blood, drugs, blood alcohol, hairs and fibers, and topics of special interest in criminalistics | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| AJS217 | 2018 Fall | Court Procedures | | Study of procedures practiced by courts of general and original jurisdiction. Extensive use of mock and moot trial methods used to prepare students in legal research, case preparation and presentation, and adversary hearings. | Prerequisites: None. | | Occ | L+L 3.0 3.0 3.0 | T |
| AJS218 | 1995 Fall | Special Investigations: Drugs | | Advanced course in the specialized investigation area of drug enforcement. Emphasis on the pharmacological propertiew of abused drugs, field testing, evidence requirements and specialized investigation techniques utilized in narcotic and dangerous drug investigations | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| AJS219 | 2018 Fall | Crime Scene Technology: Physical Evidence | | Scientific analysis and examination of physical evidence with emphasis on scientific investigation, recognition, collection, and preservation of evidence. Fingerprints, shoe prints, tool marks, firearms identification, paint chips and arson | Prerequisites: None. | | Occ | L+L 3.0 3.0 3.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| AJS220 | 2022 Spring | Transnational Organized Crime | | The study of organized crime on a domestic and global scale. Examines the history, structure, and activities of domestic and transnational organized crime groups. Explores domestic and global responses to transnational organized crime, along with accompanying challenges and future implications. | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| AJS223 | 2016 Spring | Forensic Pathology: Death Investigation | | An examination of the medical investigation of sudden, unnatural, unexplained or violent deaths. Explains the legal and medical roles of death investigators and medical examiners. Additional topics include the autopsy, documenting and evaluating the body, routine and special investigative techniques, and death event reconstruction. | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| AJS225 | 2023 Fall | Criminology | | Study of deviance, society's role in defining behavior; theories of criminality and the economic, social, and psychological impact of crime; relationships between statistics and crime trends. Examines crime victimization and the various types of crime and categories of offenders. Required in the AJS curriculum. | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| AJS230 | 2002 Spring | The Police Function | | Theories of procedures and methods of operations of public police with emphasis on discretionary powers available to the working police officer. Career opportunities and current trends in law enforcement presented | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| AJS240 | 2023 Fall | The Correction Function | | Examines the history and development of correctional theories and institutions. | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| AJS241 | 2000 Fall | Police Photography | | Emphasis on proper procedure for photographing crime scenes, accident scenes, and laboratory specimens. Discussion of photographic techniques, equipment, lighting techniques, aerial photography, video and motion pictures, macro and micro photography, filters, and preparation for court presentation using selected simulations | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| AJS243 | 2006 Spring | Crime Scene Reconstruction | | Examines techniques used to reconstruct the physical actions that occurred at a crime or accident scene. Involves the use of physical, testimonial, and documentary evidence, knowledge of criminal modus operandi and the scientific method, including deductive and inductive logic. Includes analysis of case studies. | Prerequisites: A grade of C or better in AJS215 or AJS216 or AJS219 or AJS275 or FOR105 or permission of Instructor. | | Occ | LEC 3.0 3.0 3.0 | S |
| AJS255 | 2021 Fall | The Criminal Justice System Handling of the Mentally Ill | | An introduction to methods police, court and correctional personnel employ specific to the mentally ill. Covers various types of mental illnesses, police emergency responses, how criminal and civil courts deal with the mentally ill, diversion programs and the correctional response both within the community and under confinement. | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| AJS256 | 2020 Fall | Law Enforcement Firearm Instructor | LET256 | A train the trainer course for police firearm instructors. Covers instructional techniques for the pistol, revolver, and shotgun. | Prerequisites: AzPost (Peace Officer Standard and Training) Certified Police General Instructor or permission of Department or Division. | AJS/LET256 may be repeated for Credit. | Occ | LEC 5.0 5.0 5.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| AJS256AA | 2020 Fall | Law Enforcement Patrol Rifle Instructor | LET256AA | Techniques on proper manipulation and marksmanship skills needed by a patrol officer/deputy in the use of the patrol rifle, and techniques of teaching those skills to other officers/deputies. | Prerequisites: AzPOST (Peace Officer Standard and Training) certified law enforcement firearms instructor or permission of Instructor. | AJS/LET256AA may be repeated for Credit. | Occ | LEC 3.0 3.0 3.0 | S |
| AJS258 | 2023 Fall | Victimology and Crisis Management in Public Safety | EMT/FSC258 | Victimology, the criminal justice system, techniques of crisis intervention and management, and the importance of a multicultural and global perspective. Includes violent crimes, sexual assault, family violence, post-traumatic stress disorder, the role of substance abuse, developing effective coping skills of victims and responders, appropriate community resources, and the cultural responsiveness of the justice system. | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| AJS260 | 2022 Fall | Procedural Criminal Law | | Concerned with the understanding of procedural criminal law. Examines the processes and procedures followed by law enforcement, attorneys, and the courts in the apprehension and prosecution of criminal offenders. Examines the rationale underlying major court holdings impacting the criminal justice process, the procedural requirements that stem from these holdings and their effect on the daily operations of the criminal justice system. | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| AJS269AA | 1994 Fall | Internship | | Supervised field training for preservice administration of justice students. Maximum of three (3) credit hours allowed in program. | Prerequisites: Student sponsored by governmental enforcement agency | | | LAB 1.0 5.0 0.0 | P |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | and permission of Department or Division. | | | | |
| AJS269AB | 1994 Fall | Internship | | Supervised field training for preservice administration of justice students. Maximum of three (3) credit hours allowed in program. | Prerequisites: Student sponsored by governmental enforcement agency and permission of Department or Division. | | | LAB 2.0 10.0 0.0 | P |
| AJS269AC | 1994 Fall | Internship | | Supervised field training for preservice administration of justice students. Maximum of three (3) credit hours allowed in program. | Prerequisites: Student sponsored by governmental enforcement agency and permission of Department or Division. | | | LAB 3.0 15.0 0.0 | P |
| AJS270 | 2013 Fall | Community Relations | | Examination, recognition and understanding of community problems; community action programs; methods of coping with human behavior, victimology, conflict and communication; ethnic and minority cultures and environments; the community and relationships with the criminal justice system | Prerequisites: None. | Course Attribute(s): General Education Designation: Social and Behavioral Sciences - [SB]<br>Occ<br>Occ | | LEC 3.0 3.0 3.0 | S |
| AJS275 | 2018 Fall | Criminal Investigation I | | Introduction to the theory of criminal investigation. Examines crime scene procedures, case preparation, interviewing, and basic investigative techniques | Prerequisites: None. | | | LEC 3.0 3.0 3.0 | S |
| AJS276 | 2021 Summer | Terrorism Liaison | FSC276 | Provides knowledge and skills required for the Terrorism Liaison Officer (TLO) role to coordinate and communicate with various fire, police, and military agencies in managing threat vulnerability and other emergency disasters. | Prerequisites: Permission of Program Director. | AJS/FSC276 is not open to the public. | | L+L 4.0 4.0 4.0 | T |
| AJS277 | 2021 Summer | Threat Vulnerability Assessment | FSC277 | Provides a historical perspective of threats and the activities and methods used by first responders to identify and mitigate future threats. Introduces and examines threat vulnerability of critical | Prerequisites: Permission of Program Director. | AJS/FSC277 is not open to the public. | | L+L 1.0 1.0 1.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | infrastructure within jurisdictions. Provides assessment techniques for responding agencies. | | | | | |
| AJS278 | 2021 Fall | Hostile Intent and Intervention Training | FSC278 | Provides knowledge and skills required to detect and anticipate terrorist activities as a member of a Hostile Intent and Intervention Team (HIIT). | Prerequisites: Permission of Program Director. | AJS/FSC278 is not open to the public. | Occ | L+L 2.0 2.0 2.0 | T |
| AJS279 | 2021 Fall | Field Intelligence Team Training | FSC279 | Provides knowledge and skills required for situational awareness of suspicious activities and the deployment of first responders for mitigation and investigation for the Field Intelligence Team (FIT). | Prerequisites: Permission of Program Director. | AJS/FSC279 is not open to the public. | Occ | L+L 3.0 3.0 3.0 | T |
| AJS280 | 2022 Spring | Terrorism Hazmat First Responder Training | FSC280 | Provides knowledge and skills to understand the chemistry of reactive and unstable hazardous materials, the toxicology of dangerous chemicals, and the measures taken to protect the safety of responders, the community, and the environment of chemical accidents. Also includes an introduction to field sampling of unknown substances for the Field Intelligence Team (FIT) and the Hostile Intent and Intervention Team (HIIT). | Prerequisites: Permission of Program Director. | AJS/FSC280 is not open to the public. | Occ | L+L 4.0 4.0 4.0 | T |
| AJS282AA | 2023 Fall | Service-Learning Experience in Adminstration of Justice Studies | | Unpaid Service-Learning (SL) experience, completed with approved community partner. | Prerequisites: Permission of Instructor. | AJS282AA may be repeated for a total of six (6) credit hours. Standard grading available according to procedures outlined in catalog. | Occ | LAB 1.0 1.0 0.0 | L |
| AJS282AB | 2023 Fall | Service-Learning Experience in Adminstration of Justice Studies | | Unpaid Service-Learning (SL) experience, completed with approved community partner. | Prerequisites: Permission of Instructor. | AJS282AB may be repeated for a total of six (6) credit hours. Standard grading available according to procedures outlined in catalog. | Occ | LAB 2.0 2.0 0.0 | L |
| AJS282AC | 2023 Fall | Service-Learning Experience in Adminstration of Justice Studies | | Unpaid Service-Learning (SL) experience, completed with approved community partner. | Prerequisites: Permission of Instructor. | AJS282AC may be repeated for a total of six (6) credit hours. Standard grading available | Occ | LAB 3.0 3.0 0.0 | L |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | according to procedures outlined in catalog. | | | |
| AJS290AH | 2018 Fall | Use of Force | | Examines issues related to the use of force by and against police officers. Explores police use of force decision-making options. Reviews recent changes in Arizona law relative to police officers | Prerequisites: Permission of Department or Division. | | | L+L 0.5 0.5 0.5 | T |
| AJS290AI | 1996 Fall | Theories of Criminal Behavior | | Theories of human behavior and crime. Biological, sociological, and psychological approaches to the theories of criminal behavior | Prerequisites: None. | Occ | Occ | LEC 1.0 1.0 1.0 | S |
| AJS290AU | 1995 Fall | Child Abuse Investigation | | Definition and investigation of the causes and effects of child abuse | Prerequisites: None. | | Occ | LEC 1.0 1.0 1.0 | S |
| AJS290AW | 1995 Fall | Narcotics and Dangerous Drugs | | Pharmacological effects of the use and abuse of drugs, including a description of common abuse patterns and investigative techniques used in the enforcement of drug laws | Prerequisites: None. | | Occ | LEC 1.0 1.0 1.0 | S |
| AJS290AZ | 1995 Fall | Police Interrogation Techniques | | Proper interview and interrogation techniques, including a discussion of the constitutional rights of the defendant and applicable court decisions | Prerequisites: None. | | Occ | LEC 1.0 1.0 1.0 | S |
| AJS290BB | 2023 Fall | Police Report Writing | | Writing clear, concise, complete, and accurate reports with an emphasis on sentence structure, paragraph construction, grammar, punctuation, and spelling. | Prerequisites: None. | | Occ | LEC 1.0 1.0 1.0 | S |
| AJS290BE | 1996 Fall | Probation and Parole | | Current issues in probation and parole, including sentencing, parole revocation, and administrative procedure | Prerequisites: None. | | Occ | LEC 1.0 1.0 1.0 | S |
| AJS290BH | 1995 Fall | Sex Crimes Investigation | | Investigative procedures employed by the police and courtroom procedures utilized | Prerequisites: None. | | Occ | LEC 1.0 1.0 1.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | by the prosecuting attorney in sex-related crimes | | | | | |
| AJS290BJ | 1995 Fall | Accident Investigation I | | Skills and concepts necessary to conduct an adequate traffic accident investigation | Prerequisites: None. | | Occ | LEC 1.0 1.0 1.0 | S |
| AJS290BN | 1996 Fall | Courtroom Testimony Seminar | | Courtroom demeanor and protocol. Role and primary functions of witness and legal counsels | Prerequisites: None. | | Occ | LEC 1.0 1.0 1.0 | S |
| AJS290BU | 2004 Fall | Family Violence | | Family violence issues as they relate to the criminal justice response | Prerequisites: None. | | Occ | LEC 1.0 1.0 1.0 | S |
| AJS290BV | 2004 Fall | Victim Assistance | | An overview of victim issues emphasizing strategies used to reduce the trauma associated with crime. Includes description of counseling methods, referral procedures, intervention techniques, and community resources | Prerequisites: None. | | Occ | LEC 1.0 1.0 1.0 | S |
| AJS296WA | 2002 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor. | | Occ | LAB 1.0 5.0 0.0 | Z |
| AJS296WB | 2002 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to | | | LAB 2.0 10.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | COMMON COMPETENCY COURSE | students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor. | | | | |
| AJS296WC | 2002 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor. | | Occ | LAB 3.0 15.0 0.0 | Z |
| AJS296WD | 2002 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or | Occ | | LAB 4.0 20.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | career interest or with permission of Instructor. | | | | |
| AJS298AA | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | Prerequisites: Permission of Program Director or Instructor. | | Occ | LAB 1.0 1.0 0.0 | Z |
| AJS298AB | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | Prerequisites: Permission of Program Director or Instructor. | | Occ | LAB 2.0 2.0 0.0 | Z |
| AJS298AC | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and | Prerequisites: Permission of Program Director or Instructor. | | Occ | LAB 3.0 3.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | | | | | |
| ALT100 | 2020 Fall | Academic Literacy Through Integrated Reading and Writing | | Develops academic language skills and critical reading skills for organizing, analyzing, and retaining material through complementary reading and writing assignments. Prepares students for college level reading and writing intensive courses as well as career-related reading and writing tasks. | Prerequisites: An appropriate District placement. | | | LEC 4.0 4.0 4.0 | S |
| AMS298AA | 2006 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | Prerequisites: Permission of Program Director or Instructor. | Acad<br>Occ | | LAB 1.0 1.0 0.0 | Z |
| AMS298AB | 2006 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student | Prerequisites: Permission of Program Director or Instructor. | Occ | | LAB 2.0 2.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | development. COMMON COMPETENCY COURSE | | | | | |
| AMS298AC | 2006 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | Prerequisites: Permission of Program Director or Instructor. | | Occ | LAB 3.0 3.0 0.0 | Z |
| AMT124 | 2020 Fall | Aircraft Forms and Regulations, Weight and Balance, Drawings, and Ground Operations | | Federal Aviation maintenance publications, forms and records. Overview of technician`s privileges and limitations. Perform aircraft weight and balance, aircraft ground operations and fuel servicing techniques. Drawings, symbols and schematic diagrams. | Prerequisites: Admission to the Aircraft Maintenance Technology program. | | Occ | L+L 5.0 9.0 9.0 | T |
| AMT126 | 2020 Fall | Fundamentals of Mathematics and Electricity | | Mathematical computation of fundamental electrical circuit parameters. Basic definitions, laws, and concepts. Schematic, wiring, and parts placement diagrams. Test and troubleshoot electrical and electronic components and circuits. | Prerequisites: Admission to the Aircraft Maintenance Technology program. | | Occ | L+L 9.0 12.0 12.0 | T |
| AMT128 | 2020 Fall | Fundamentals of Aviation Physics, Corrosion Control, Materials and Processes, Fluid Lines and Fittin | | Basic concepts of motion, fluid dynamics, heat and sound, aerodynamics, aircraft structure and theory of flight. Fluid lines and fittings, component identification, function, inspection, and installation. Cleaning and corrosion control, materials | Prerequisites: Admission to the Aircraft Maintenance Technology program. | | Occ | L+L 5.0 9.0 9.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | and processes, non-destructive testing, and precision measurement techniques. | | | | | |
| AMT220 | 2018 Fall | Fundamentals of Aircraft Wood Structures, Covering and Finishing, and Bonded Structures | | Theories and techniques of aircraft wood structures. Inspection, test and repair of aircraft fabric and wood structures. Aircraft structural design and methods of working with selected materials. Characteristics of composites, inspections and repairs | Prerequisites: Admission to the program. | | Occ | L+L 3.0 6.0 6.0 | T |
| AMT222 | 2018 Fall | Atmosphere Control, Fire Detection, Ice and Rain Protection Systems | | Operation and maintenance of aircraft auxiliary systems. Inspection, servicing, troubleshooting and repair of environmental control, ice and rain control, fire protection and warning systems | Prerequisites: Admission to the program. | | Occ | L+L 4.0 6.0 6.0 | T |
| AMT224 | 2018 Fall | Aircraft Sheet Metal | | Inspection, fabrication, and repair techniques of aircraft structural and nonstructural components. Sheet metal heat-treating techniques | Prerequisites: Admission to the program. | | Occ | L+L 5.0 11.0 11.0 | T |
| AMT226 | 2018 Fall | Aircraft Landing Gear, Hydraulic, Pneumatic, Fuel, Position and Warning Systems | | Identification, inspection, repair, and troubleshooting techniques of aircraft landing gear, hydraulic, fuel, pneumatic, and position and warning system components | Prerequisites: Admission to the program. | | Occ | L+L 7.0 12.0 12.0 | T |
| AMT228 | 2018 Fall | Aircraft Electrical Systems, Instruments, Fuel Indicating, Communication and Navigation Systems | | Proper operation, inspection, servicing and troubleshooting of DC(Direct Current) and AC(Alternating Current) sources, systems, and components. Mechanical and electrical sensing and information display systems. Fuel indicator system inspections, repairs, and troubleshooting. Transmitter and receiver fundamentals. Avionics installation, inspection and testing | Prerequisites: Admission to the program. | | Occ | L+L 7.0 12.0 12.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| AMT230 | 2018 Fall | Airframe Assembly, Inspection and Welding | | Aircraft assembly and rigging. Flight control balancing and rigging. Airframe inspection techniques, reporting procedures, and aircraft jacking. Welding techniques, theory, and materials identification | Prerequisites: Admission to the program. | | Occ | L+L 6.0 11.0 11.0 | T |
| AMT263 | 2018 Fall | Aircraft Turbine Engines | | Historical development and application of turbine engines. Theory of thrust and the design and environmental factors which influence thrust. Turbine engine troubleshooting, inspection, service, repair and overhaul. Operational characteristics and engine test techniques on the aircraft and in test cells | Prerequisites: Admission to the program. | | Occ | L+L 5.0 9.0 9.0 | T |
| AMT264 | 2018 Fall | Aircraft Reciprocating Engines | | Historical development and application of reciprocating engines, theory, design, and operations. Techniques used in troubleshooting, overhaul, inspection, and repair of opposed and radial engines | Prerequisites: Admission to the program. | | Occ | L+L 7.0 11.0 11.0 | T |
| AMT266 | 2018 Fall | Engine Fuel Systems, Fuel Metering and Induction System | | Inspection, servicing, troubleshooting, overhaul, and repair of aircraft fuel systems and components, fuel metering devices, injection systems, turbochargers, and superchargers. Induction system principles of operation and design | Prerequisites: Admission to the program. | | Occ | L+L 6.0 9.0 9.0 | T |
| AMT268 | 2018 Fall | Engine Electrical, Ignition and Starter Systems | | Inspect, service, troubleshoot, overhaul, and repair of engine electrical, ignition, starter systems, and components | Prerequisites: Admission to the program. | | Occ | L+L 6.0 12.0 12.0 | T |
| AMT270 | 2018 Fall | Engine Instruments, Fire Protection and Lubrication, Cooling and Exhaust Systems | | Operation, maintenance, servicing, inspection, repair, and troubleshooting of engine instruments, fire detection and extinguishing, engine lubrication, cooling, and exhaust systems | Prerequisites: Admission to the program. | | Occ | L+L 5.0 8.0 8.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| AMT272 | 2018 Fall | Propeller Systems and Engine Inspections | | Historical development, operation, disassembly, inspection, repair, and maintenance of propellers. Reciprocating and turbine engine inspection and documentation | Prerequisites: Admission to the program. | | Occ | L+L 4.0 8.0 8.0 | T |
| AMT298AA | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment are made available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | Prerequisites: Permission of Program Director or Instructor. | | Occ | LAB 1.0 1.0 0.0 | Z |
| AMT298AB | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment are made available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | Prerequisites: Permission of Program Director or Instructor. | | Occ | LAB 2.0 2.0 0.0 | Z |
| AMT298AC | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and | Prerequisites: Permission of Program Director or Instructor. | | Occ | LAB 3.0 3.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | guidance. Professional-type facilities and equipment are made available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | | | | | |
| APT101 | 2018 Spring | Automotive Service Operations | | Theory and operation of basic automotive systems. Basic principles of working in an automotive service area. Management-employee relations, resume writing, interviewing, shop practices, flat-rate system, equipment care, and basic hand tools. | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| APT111 | 2017 Spring | Internal Combustion Engines Theory | | Study of construction and operating principles of internal combustion engines and related lubrication, cooling, fuel, and electrical systems. | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| APT131 | 2018 Fall | Automotive Manual Power Trains | | Designed for beginning automotive students. Operation, diagnosis, service, and repair of the automotive power train. Includes manual transmissions and transaxles, clutches, front and rear drive axles, drive shafts, differentials and transfer case. | Prerequisites: None. | | Occ | LEC 6.0 3.0 3.0 LAB 0.0 7.0 7.0 | T |
| APT141 | 2018 Fall | Alignment, Steering, and Suspension | | Designed for beginning automotive students. Fundamental principles of steering and suspension systems. Includes two- wheel and four-wheel alignment procedures. Emphasis on diagnosis, testing, service, and replacement of steering and suspension components. | Prerequisites: None. | | Occ | LEC 6.0 3.0 3.0 LAB 0.0 7.0 7.0 | T |
| APT151 | 2018 Fall | Automotive Brake Systems | | Designed for beginning automotive students. Fundamentals of drum, disc, ABS and hybrid regenerative | Prerequisites: None. | | Occ | LEC 4.0 2.0 2.0 LAB 0.0 5.0 5.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | braking theory. Includes training in diagnosis, testing, service, and repair. | | | | | |
| APT161 | 2018 Fall | Auto Electrical/Electronic Systems I | | Designed for beginning automotive students. The principles of electricity including Ohm`s Law, circuit principles and wiring diagrams. Skill development will include diagnosis, testing, service and repair of batteries, starting systems, charging systems, lighting systems, horns, wipers, defoggers, door locks, power mirrors, power windows, power seats and the use of Digital Multi Meters (DMM) will be addressed in this course. | Prerequisites: None. | | Occ | LEC 4.0 2.0 2.0 LAB 0.0 5.0 5.0 | T |
| APT171 | 2018 Fall | Automotive Air Conditioning | | Designed for beginning automotive students. Theory and principles of ventilation, heating, automotive refrigeration, vacuum-electric controls, and automatic temperature control systems. Includes training in diagnosis, testing, service and repair. | Prerequisites: None. | | Occ | LEC 4.0 2.0 2.0 LAB 0.0 5.0 5.0 | T |
| APT181 | 2018 Fall | Engine Performance and Diagnosis I | | Designed for beginning automotive students. Engine construction and operating principles, including lubrication, cooling, induction, exhaust, fuel, and ignition systems. Includes training in diagnosis, testing, service, and repair. | Prerequisites: None. | | Occ | LEC 6.0 3.0 3.0 LAB 0.0 7.0 7.0 | T |
| APT262 | 2018 Fall | Auto Electrical/Electronic Systems II | | Designed for experienced students. This course develops knowledge of body control modules including skill development, diagnosis, testing, service, and repair of the following systems - advanced lighting circuits, vehicle stability control, | Prerequisites: A grade of C or better in APT161 or permission of Instructor. | | Occ | LEC 4.0 2.0 2.0 LAB 0.0 5.0 5.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | traction control, basic and advanced climate control systems, integrated safety systems, collision avoidance systems, start-stop technology, hybrid technology, mobile connectivity, use of Digital Multi Meters (DMM) and automotive oscilloscopes. | | | | | |
| APT282 | 2018 Fall | Engine Performance and Diagnosis II | | Designed for the experienced engine performance student. This course will include training in fuel systems, emission systems, ignition systems, turbocharging, computerized engine controls and engine driveability. Also, training in diagnosis, testing, service, repair, and documenting for customer understanding using the 3C's which are Concern, Cause and Correction will be addressed in this course. | Prerequisites: A grade of C or better in APT181 or permission of Instructor. | | Occ | LEC 6.0 3.0 3.0 LAB 0.0 7.0 7.0 | T |
| ARB101 | 2020 Fall | Elementary Arabic I | | Introduction to the basic alphabet, grammar, pronunciation and vocabulary of the Arabic language. Listening, speaking, reading and writing skills. | Prerequisites: None. | | Acad | L+L 5.0 5.0 5.0 | T |
| ARB102 | 2020 Fall | Elementary Arabic II | | A continuation of ARB101. Continued study of grammar and vocabulary, with emphasis on pronunciation and speaking skills. | Prerequisites: A grade of C or better in ARB101. Completion of prerequisites within the last three years is required. | | | L+L 5.0 5.0 5.0 | T |
| ARB115 | 2005 Spring | Beginning Arabic Conversation I | | Conversational Arabic with emphasis on basic sentence structure, pronunciation and vocabulary. Designed to develop speaking and listening abilities with less emphasis on grammar | Prerequisites: None. | | Acad | LEC 3.0 3.0 3.0 | S |
| ARB201 | 2020 Fall | Intermediate Arabic I | | Review of essential grammar of the Arabic language and study of the Arabic culture. | Prerequisites: A grade of C or better in ARB102 or permission | Acad | | L+L 5.0 5.0 5.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Continued practice and development of reading, writing, and speaking skills. Emphasis on both fluency and accuracy in the spoken language. | of Department or Division. Completion of prerequisites within the last three years is required. | | | | |
| ARB202 | 2020 Fall | Intermediate Arabic II | | Advanced grammatical structures in Arabic. Further development of language skills with emphasis on speaking the language. | Prerequisites: A grade of C or better in ARB201 or permission of Department or Division. Completion of prerequisites within the last three years is required. | | | L+L 5.0 5.0 5.0 | T |
| ARB296WA | 2023 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. | Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor. | Acad | Acad | LAB 1.0 5.0 0.0 | Z |
| ARB296WB | 2023 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's | Acad | | LAB 2.0 10.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | major or career interest or with permission of the Instructor. | | | | |
| ARB296WC | 2023 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor. | | Acad | LAB 3.0 15.0 0.0 | Z |
| ARB296WD | 2023 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor. | | Acad | LAB 4.0 20.0 0.0 | Z |
| ARB298AA | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and | Prerequisites: Permission of Program Director or Instructor. | | Acad | LAB 1.0 1.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | | | | | |
| ARB298AB | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | Prerequisites: Permission of Program Director or Instructor. | | Acad | LAB 2.0 2.0 0.0 | Z |
| ARB298AC | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | Prerequisites: Permission of Program Director or Instructor. | | Acad | LAB 3.0 3.0 0.0 | Z |
| ARC100 | 2018 Fall | Introduction to Environmental Design | | A survey of design through historical evaluation of built environments and works of well-known architects. Principles, concepts, and skills | Prerequisites: None. | | Occ | L+L 3.0 6.0 6.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | associated with designs of actual and imagined ideas and things. Emphasis on social, technical, environmental, and theoretical forces that impacts design | | | | | |
| ARC120 | 2018 Fall | Design Fundamentals I | | An introduction to architectural drawing and graphic representation methods. Using architectural drawings and graphic representations as visualization, and problem-solving methods. Emphasis on visual communication, and the application and development of the visual design via process as well as product. | Prerequisites: None. | | Occ | L+L 3.0 6.0 6.0 | T |
| ARC121 | 2018 Fall | Introduction to Architectural Drafting: Manual | | Emphasis on basic techniques and principles of manual architectural drafting. Includes hand lettering, line work, dimensioning, multi-view projection, work in plan, section, and elevation views, design standards, wall details, office procedures, and portfolio development | Prerequisites: None. | | Occ | L+L 3.0 6.0 6.0 | T |
| ARC140 | 2018 Fall | Rendering and Portfolio Development | | Two-dimensional and three-dimensional drawings and rendering methods, including freehand and/or use of drawing tools for presentation of ideas. Techniques for use of pencil, ink, and colors. Professional formatting of portfolios | Prerequisites: None. | | Occ | L+L 3.0 6.0 6.0 | T |
| ARC141 | 2018 Fall | Architectural CAD I: Introduction | | Introduction to Computer Aided Drafting (CAD) for Architecture, Interior Design, and related professions using AutoCAD software. Includes basic operational systems, drawing set-ups, architectural formats, and two-dimensional drawing. Editing commands, | Prerequisites: None. | ARC141 may be repeated for a total of six (6) credit hours. | Occ | L+L 3.0 6.0 6.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | annotation, and plotting for the industry also included. | | | | | |
| ARC142 | 2018 Fall | Architectural CAD II: Plans and Elevations | | Computer Aided Drafting (CAD) instruction directed to the creation of fully annotated plan, elevation, and schematic section views including dimensions, notes, symbols, and schedules. Introduction to three-dimensional (3D) CAD using SketchUp. | Prerequisites: A grade of C or better in ARC141 or permission of Instructor. | | Occ | L+L 3.0 6.0 6.0 | T |
| ARC143 | 2018 Fall | Architectural CAD: Extended Study | | Reinforcement and extended study of basic two-dimensional computer aided drafting (CAD) skills for Architecture, Interior Design, and related professions using AutoCAD software. Includes sending/receiving drawing files on web; templates/set-ups; dimension/text formats; sheet management; external referencing, design center, basic/extended drawing and editing commands, and plotting. | Prerequisites: A grade of C or better in ARC141 or permission of Instructor. | ARC143 may be repeated for a total of six (6) credit hours. | Occ | L+L 3.0 6.0 6.0 | T |
| ARC146 | 2018 Fall | Architectural Print Reading | | Analysis and interpretation of architectural working drawings including written specifications and drawings prepared by consulting engineers. | Prerequisites: None. | | Occ | L+L 3.0 3.0 3.0 | T |
| ARC148 | 2007 Fall | Methods and Materials of Construction | | Modern methods of construction and materials for residential, multiple, and commercial building, including the four types of structures used: wood, concrete, steel and masonry. Methods of assembly and how different materials can be used to create desired designs. Requirements of most recent building codes and the F.H.A. standards | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| ARC150 | 2018 Fall | Architectural Desktop I | | Residential construction drawing using Architectural | Prerequisites: A grade of C or better in | | | L+L 3.0 6.0 6.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Desktop (ADT). Includes preliminary workspace setups, configuration procedures, modules operations, and on screen menus applicable for producing components of a building model. | CON130 or permission of Department or Division. | | | | |
| ARC160 | 2018 Fall | Site Planning | | Emphasis on the basic art of site planning, using professional design techniques and principles of architecture to develop site plans. Selection of materials, awareness of problems, and emphasis on the production of site plan drawings using board and/or computer aided drafting (CAD) skills. | Prerequisites: A grade of C or better in DFT122 or permission of Program Director. | | Occ | L+L 3.0 6.0 6.0 | T |
| ARC161 | 2018 Fall | Residential Architectural Drafting | | Basics of residential drafting and documentation topics and techniques. Includes preliminary planning and preparation for residential documentation; use of the local building codes and standards; complete drawing and annotation of a floor plan, reflected ceiling plan, roof plan, a building sections, framing plan, and exterior elevations. | Prerequisites: A grade of C or better in CON130 or permission of Department or Division. | | | L+L 3.0 6.0 6.0 | T |
| ARC162 | 2018 Fall | Advanced Residential Architectural Drafting | | Advanced residential drafting and documentation topics and techniques. Includes site orientation, layout and legal description; window and door schedules; interior elevation of kitchen and bath rooms; advanced instruction on framing and structural detail methods; foundation systems, support and layout; and other needed residential details and layouts. | Prerequisites: A grade of C or better in ARC161 and CON230 or permission of Department or Division. | Course Attribute(s): COMMON COMPETENCY COURSE | Occ | L+L 3.0 6.0 6.0 | T |
| ARC163 | 2018 Fall | Commercial Architectural Drafting | | Fundamental commercial drafting and documentation | Prerequisites: A grade of C or better in | Course Attribute(s): COMMON COMPETENCY COURSE | Occ | L+L 3.0 6.0 6.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | topics and techniques. Includes preliminary planning and preparation for commercial documentation; use of the local building codes and standards; building methods and materials of commercial structures; complete drawing and annotation of a floor plan, reflected ceiling plan, roof plan, building sections, and exterior elevations. | CON130 or permission of Department or Division. | | | | |
| ARC164 | 2018 Fall | Advanced Commercial Architectural Drafting | | Further development of advanced commercial drafting and documentation topics and techniques. Covers commercial building materials and methods, specifications, land drawings, foundation plans, interior elevations, and more details specific to commercial buildings. | Prerequisites: A grade of C or better in (ARC163 and CON130) or permission of Department or Division. | Course Attribute(s): COMMON COMPETENCY COURSE | Occ | L+L 3.0 6.0 6.0 | T |
| ARC165 | 2004 Fall | Introduction to Architecture Professional Practice and Ethics | | Professional, legal, and ethical issues in architecture practice and services. Includes marketing issues, communications, standards, insurance and bonds, agreements, contracts and contractors, standard American Institute of Architecture (AIA) forms and conditions, selection of contractors, and bidding procedures | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| ARC225 | 2018 Fall | Fundamentals of Architectural Detailing | | Introduction to construction /architecture detailing. Examines functional, construction-related, and aesthetic applications of detailing. | Prerequisites: A grade of C or better in CON130 or CON252 or permission of Department or Division. | | | LEC 3.0 3.0 3.0 | S |
| ARC226 | 2018 Fall | Advanced Architectural Detailing | | Advanced methods of detailing major construction materials such as wood, steel, and concrete, ranging from | Prerequisites: A grade of C or better in CON130 or CON252 or | | | LEC 3.0 3.0 3.0 | S |



Occ

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | simple residential to more complicated commercial structures. Includes detailing foundations, exterior and interior walls, roof and ceiling areas. | permission of Department or Division. | | | | |
| ARC243 | 2018 Fall | Architectural CAD III: Site Plans and Sections | | Computer-aided drafting (CAD-based) instruction directed to the creation of fully annotated site plans and sectional views. Development of professional quality site plans, wall sections, and building sections working from given residential and commercial layouts. Assignments incorporate applicable codes, construction materials and methods and office practices typical to the local area. | Prerequisites: A grade of C or better in ARC142 or permission of Department or Division. | Occ | | L+L 3.0 6.0 6.0 | T |
| ARC244 | 2018 Fall | Architectural CAD IV: Structural Systems | | CAD-based(Computer-Aided Drafting) instruction for layout and completion of fully annotated structural drawings. Focuses on working from residential and commercial layouts to develop professional quality roof, roof framing, floor framing and foundation plans. Emphasis on the use of applicable codes, construction materials and methods, and office practices typical to the local area | Prerequisites: A grade of C or better in ARC142 or permission of Department or Division. | Occ | | L+L 3.0 6.0 6.0 | T |
| ARC245 | 2018 Fall | Architectural CAD V: Mechanical and Electrical Systems | | CAD-based(Computer-Aided Drafting) instruction for layout and completion of fully annotated building systems drawings. Focuses on working from residential and commercial layouts to develop professional quality Electrical, Mechanical(HVAC), Plumbing and Reflected Ceiling plans. | Prerequisites: A grade of C or better in ARC142 or permission of Department or Division. | | | L+L 3.0 6.0 6.0 | T |



Occ

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Emphasis on the use of applicable codes, construction materials and methods, and office practices typical to the local area | | | | | |
| ARC246 | 2018 Fall | Architectural CAD VI: Construction Details | | Typical southwestern construction systems and details. Creation of personal standard detail files for wood frame, concrete masonry, and other specialized construction systems. | Prerequisites: A grade of C or better in ARC243 or permission of Department or Division. | | | L+L 3.0 6.0 6.0 | T |
| ARC250 | 2020 Fall | Basic Revit | INT250 | Basic skills required to complete architectural drawings with Revit software; simplified overview of the software program and operations gained through completing typical plan, elevation, sectional, and 3D views, using generic walls and related components. | Prerequisites: None. ARC141, or previous AutoCAD/industry experience recommended. | ARC/INT250 may be repeated for a total of six (6) credit hours.<br><br>Occ | Occ | L+L 3.0 6.0 6.0 | T |
| ARC251 | 2018 Fall | Intermediate Revit | | Comprehensive use of Revit Design Development tools through the development of 3-D model(s) in working drawing and rendered formats. Includes completing a set of construction documents from creating walls, incorporating doors, windows, floor, stairs, etc., to adding views and annotation to various sheets and coordinating those sheets within the finished set. | Prerequisites: None. ARC250 or previous architectural and CAD experience strongly recommended. | ARC251 may be repeated for a total of six (6) credit hours. | Occ | L+L 3.0 6.0 6.0 | T |
| ARC252 | 2018 Fall | Advanced Revit | | Advanced applications and use of REVIT architectural software in completing assigned projects; focus on customization of the Revit environment and developing Revit families. | Prerequisites: A grade of C or better in ARC251 or permission of Instructor. | ARC252 may be repeated for a total of six (6) credit hours. | Occ | L+L 3.0 6.0 6.0 | T |
| ARC255 | 2018 Fall | Introduction to Revit Structure | | Introduction to Revit Structure software, addressing specialized options and processes used in structural | Prerequisites: None. Previous educational/professional experience in | ARC255 may be repeated for a total of six (6) credit hours. | Occ | L+L 3.0 6.0 6.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | engineering offices; includes project modeling, model analysis, reinforcement modeling, detailing, and documentation. | architecture or structural engineering strongly recommended. | | | | |
| ARC261 | 2018 Fall | Architectural CAD 3D I: Introduction | | Introduction to construction, manipulating, and rendering three-dimensional (3D) objects and architectural spaces on the computer using AutoCAD software. | Prerequisites: A grade of C or better in ARC141 or equivalent or permission of Department or Division. ARC142 suggested but not required. | | | L+L 3.0 6.0 6.0 | T |
| ARC262 | 2018 Fall | Architectural CAD 3D II: ADT and VIZ | | Additional skill development in constructing, manipulating, and rendering three-dimensional (3D) architectural computer models using AutoCAD Architectural Desktop (ADT) and Viz Render (VIZ) software | Prerequisites: A grade of C or better in ARC261 or equivalent or permission of Department or Division. | Occ | | L+L 3.0 6.0 6.0 | T |
| ARC265 | 2020 Fall | Sketchup I: Introduction to Sketchup | INT251 | Provides students with introductory level instruction utilizing Sketchup rendering software for school and workplace applications. Addresses basic drawing/rendering commands, accessing external drawing files, and plotting through the creation of both three-dimensional schematic and rendered interior and exterior building views. | Prerequisites: None. Previous CAD experience recommended but not required. | ARC265/INT251 may be repeated for a total of six (6) credit hours.<br><br>Occ | Occ | L+L 3.0 6.0 6.0 | T |
| ARC266 | 2021 Summer | Sketchup II: Advanced Rendering Techniques | INT267 | Provides students with advanced instruction utilizing Sketchup, Google Earth, Sandbox and Podium rendering software for school and workplace applications. Creation of photo-realistic rendered three-dimensional interior and exterior building/site views. | Prerequisites: A grade of C or better in ARC265/INT251 or permission of Instructor. | | Occ | L+L 3.0 6.0 6.0 | T |
| ARC270 | 2018 Fall | Architectural Technology Synthesis | | Provides students an opportunity to integrate and synthesize knowledge and | Prerequisites: A grade of C or better in (ARC243 and ARC244 | ARC270 may be repeated for a total of six (6) credit hours. | Occ | L+L 3.0 6.0 6.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | skills acquired in prerequisite courses. Includes completion of a full set of working drawings using AutoCAD under supervision comparable to workplace situations. Designed to provide practice in self-checking work, correcting and editing drawings, and assembling a portfolio. | and ARC245) or permission of Instructor. | | | | |
| ARC282AA | 2004 Fall | Volunteerism for Architecture: A Service Learning Experience | | Service-learning field experience within private/public agencies and citizen volunteer groups. | Prerequisites: Permission of Department or Division. | ARC282AA may be repeated for a total of three (3) credit hours. May not repeat specific assignment for more than three (3) credit hours. Standard grading available according to procedures outlined in college catalog. | Occ | LAB 1.0 1.0 0.0 | L |
| ARC282AB | 2004 Fall | Volunteerism for Architecture: A Service Learning Experience | | Service-learning field experience within private/public agencies and citizen volunteer groups. | Prerequisites: Permission of Department or Division. | ARC282AB may be repeated for a total of three (3) credit hours. May not repeat specific assignment for more than three (3) credit hours. Standard grading available according to procedures outlined in college catalog. | Occ | LAB 2.0 2.0 0.0 | L |
| ARC282AC | 2004 Fall | Volunteerism for Architecture: A Service Learning Experience | | Service-learning field experience within private/public agencies and citizen volunteer groups. | Prerequisites: Permission of Department or Division. | Standard grading available according to procedures outlined in college catalog. | Occ | LAB 3.0 3.0 0.0 | S |
| ARC290AA | 2004 Fall | Architecture Internship | | Architecture internship office and field experience with private agencies, public agencies, or citizen volunteer groups. | Prerequisites: A grade of C or better in ARC282++ or permission of Department or Division. | ARC290AA may be repeated for a total of three (3) credit hours. ARC290AA students may not repeat a specific assignment for more than three (3) credit hours. Standard grading available according to procedures outlined in college catalog. | Occ | LAB 1.0 1.0 0.0 | P |
| ARC290AB | 2004 Fall | Architecture Internship | | Architecture internship office and field experience with private agencies, public agencies, or citizen volunteer groups. | Prerequisites: A grade of C or better in ARC282++ or permission of Department or Division. | ARC290AB may be repeated for a total of three (3) credit hours. ARC290AB studetns may not repeat a specific assignment for more than three (3) credit hours. Standard | Occ | LAB 2.0 2.0 0.0 | P |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | grading available according to procedures outlined in college catalog. | | | |
| ARC290AC | 2004 Fall | Architecture Internship | | Architecture internship office and field experience with private agencies, public agencies, or citizen volunteer groups. | Prerequisites: A grade of C or better in ARC282++ or permission of Department or Division. | Standard grading available according to procedures outlined in college catalog. | Occ | LAB 3.0 3.0 0.0 | P |
| ARC296WA | 2006 Summer I | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor. | | Occ | LAB 1.0 5.0 0.0 | Z |
| ARC296WB | 2006 Summer I | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor. | | Occ | LAB 2.0 10.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| ARC296WC | 2006 Summer I | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor. | | Occ | LAB 3.0 15.0 0.0 | Z |
| ARC296WD | 2006 Summer I | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor. | | Occ | LAB 4.0 20.0 0.0 | Z |
| ARC298AA | 2006 Summer I | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. | Prerequisites: Permission of Program Director or Instructor. | | Occ | LAB 1.0 1.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | | | | | |
| ARC298AB | 2006 Summer I | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | Prerequisites: Permission of Program Director or Instructor. | Occ | | LAB 2.0 2.0 0.0 | Z |
| ARC298AC | 2006 Summer I | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | Prerequisites: Permission of Program Director or Instructor. | Occ | | LAB 3.0 3.0 0.0 | Z |
| ARH100 | 2018 Fall | Introduction to Art | | Understanding and enjoyment of art and visual culture through study of two-dimensional and three-dimensional works of art, design elements, media and processes, and cultural contexts. Emphasis on | Prerequisites: None. | | Acad | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | contemporary topics and cultural diversity in the arts. | | | | | |
| ARH101 | 2023 Fall | Art from Prehistory Through Middle Ages | | History of art from the Paleolithic period through the Middle Ages. | Prerequisites: None. | | Acad | LEC 3.0 3.0 3.0 | S |
| ARH102 | 2023 Fall | Art from Renaissance to Modernism | | History of art from the Renaissance through Modernism. | Prerequisites: None. | | Acad | LEC 3.0 3.0 3.0 | S |
| ARH109 | 2024 Fall | History of American Art | | Study of the major art historical developments and traditions in the United States from pre-colonial times to the present, including the changing nature of American art and identity in the age of globalization. Consideration of major genres and stylistic characteristics with emphasis on the sociocultural contexts in which art was created and received. | Prerequisites: None. | | Acad | LEC 3.0 3.0 3.0 | S |
| ARH110 | 2024 Fall | History of Graphic Design | | Survey of the history of graphic design from its origins to the present. Traces the characteristics, aesthetics, and relationships between graphic design and society. Includes movements, individual artists, and interpretation. Emphasizes the function of graphic design as a branch of human visual communication. | Prerequisites: None. | | Acad | LEC 3.0 3.0 3.0 | S |
| ARH112 | 2024 Fall | Introduction to Modern and Contemporary Art | | Study of art and theory from the mid-nineteenth century to the present. Focus on European and American modern and contemporary art while considering other regions of the world. Examination of the historical, social, and cultural contexts of artistic developments. Application of various interpretive models to | Prerequisites: None. | | Acad | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | examine modern and contemporary art. | | | | | |
| ARH115 | 2023 Fall | History of Photography | | Survey of history of photography from beginning to present. Emphasizes the reciprocal relationship between the medium's development and reception, society, and other visual arts. Technical developments, photographic practices, and sociocultural themes are studied. | Prerequisites: None. | | Acad | LEC 3.0 3.0 3.0 | S |
| ARH118 | 2018 Fall | Introduction to Chinese Art | | Explores Chinese philosophy, symbolism, history and religions that underlie the choice of subject matter and life forms in Chinese art. Uses Chinese bamboo brush, ink and rice paper to study Chinese calligraphy and traditional subjects for painting | Prerequisites: None. | Course Attribute(s): General Education Designation: Global Awareness - [G] General Education Designation: Humanities, Arts and Design - [HU] | Acad | L+L 3.0 3.0 3.0 | T |
| ARH145 | 2003 Fall | History of American Indian Art | | Survey of American Indian Art from precontact to present. Reviews the impact of these art forms on contemporary American society, other world societies and on the visual arts. Explores characteristics, cultural influences and concerns represented in various art forms past and present. Features field trips to galleries and collections | Prerequisites: None. | Course Attribute(s): General Education Designation: Cultural Diversity - [C] General Education Designation: Humanities, Arts and Design - [HU] | Acad | LEC 3.0 3.0 3.0 | S |
| ARH201 | 2024 Fall | Art of Asia | | Introduction to the origins and historical development of art in Asia, with emphasis on Asia's major sub-regions including West, Central, East, South, and Southeast. | Prerequisites: None. | | Acad | LEC 3.0 3.0 3.0 | S |
| ARH202 | 2023 Fall | Art of Africa, Oceania, and Americas | X Ref | Study of the material cultures of Africa, America, and Oceania, with an emphasis on diverse worldviews and their expression within a contemporary global context. | Prerequisites: None. | | Acad | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| ARH203 | 2005 Spring | Art of Ancient Egypt | | The art and culture of ancient Egypt from prehistoric through the Greco-Roman period | Prerequisites: None. | Course Attribute(s): General Education Designation: Historical Awareness - [H] General Education Designation: Humanities, Arts and Design - [HU] | Acad | LEC 3.0 3.0 3.0 | S |
| ARH204 | 2014 Spring | Roman Art and Architecture | | Detailed examination of the art and architecture of ancient Rome from the monarchical period to the late empire, with emphasis on the visual culture and artifacts of the civilization. | Prerequisites: None. | Course Attribute(s): General Education Designation: Historical Awareness - [H] General Education Designation: Humanities, Arts and Design - [HU] | Acad | LEC 3.0 3.0 3.0 | S |
| ARH216 | 2003 Spring | Pre-Columbian Art History | | Art of the Americas prior to European contact, focusing on Mesoamerica and the Central Andean region and their respective adjoining areas, with some attention to the U.S. Southwest and Eastern Woodlands Mound Building cultures | Prerequisites: None. | | Acad | LEC 3.0 3.0 3.0 | S |
| ARH217 | 1995 Fall | Mexican Art History | | Art of Mexico and related cultures, from the prehistoric to the contemporary period | Prerequisites: None. | Course Attribute(s): General Education Designation: Historical Awareness - [H] General Education Designation: Humanities, Arts and Design - [HU] | Acad | LEC 3.0 3.0 3.0 | S |
| ARH240 | 2008 Fall | Art and Architecture of the Islamic World to 1800 | | Introduction to the principal achievements in art and architecture of the Islamic world circa 650-1800 CE and placing them in social and cultural contexts and consideration of the historical evolution of Western knowledge and understanding of these works | Prerequisites: None. | | Acad | LEC 3.0 3.0 3.0 | S |
| ARH250 | 2016 Spring | Visual Language and Interpretation | | Examines the communication of concepts through visual interpretation and expression. | Prerequisites: A grade of C or better in (ART111, ART112, ART131, ART167 and ARH100) or permission of instructor. | | Acad | LEC 1.0 1.0 1.0 | S |
| ARH298AA | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured | Prerequisites: Permission of Program Director or Instructor. | | Acad | LAB 1.0 1.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | | | | | |
| ARH298AB | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | Prerequisites: Permission of Program Director or Instructor. | | Acad | LAB 2.0 2.0 0.0 | Z |
| ARH298AC | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | Prerequisites: Permission of Program Director or Instructor. | | Acad | LAB 3.0 3.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| ART105 | 2018 Fall | Art Beyond the Classroom | | Visual arts experience. Includes field trips to galleries, museums, and collections as well as art lectures, demonstrations, and varied studio experiences. | Prerequisites: None. | ART105 may be repeated for a total of four (4) credit hours. | Acad | L+L 1.0 2.0 2.0 | T |
| ART106 | 2018 Fall | Gallery Operations | | Operation of an art gallery. Includes organization, publicity, evaluation of artwork, selection and installation of exhibits. | Prerequisites: Permission of Instructor. | ART106 may be repeated for a total of six (6) credit hours. | Acad | L+L 3.0 6.0 6.0 | T |
| ART110 | 2018 Fall | Experimental Chinese Painting | | Explores ancient Chinese techniques with rice paper and Chinese ink to create traditional and nontraditional designs. Emphasis on use of Chinese techniques in mixed media works. | Prerequisites: None. | ART110 may be repeated for credit. | Acad | L+L 1.0 2.0 2.0 | T |
| ART111 | 2018 Fall | Drawing I | | Fundamental principles of drawing. Emphasis on composition and facility in objective and expressive representation, using variety of drawing media | Prerequisites: None. | Course Attribute(s): Arizona Shared Unique Number SUN#: ART 1111 | Acad | L+L 3.0 6.0 6.0 | T |
| ART112 | 2018 Fall | Two-Dimensional Design | | Study of fundamental elements and principles of two-dimensional design. | Prerequisites: None. | Course Attribute(s): Arizona Shared Unique Number SUN#: ART 1112 | Acad | L+L 3.0 6.0 6.0 | T |
| ART113 | 2018 Fall | Color | | Investigation seeking visual solutions to a variety of problems concerning color in two and three dimensions and modes of color appearances, including light and effects in design and theory of design. | Prerequisites: None. | | Acad | L+L 3.0 6.0 6.0 | T |
| ART115 | 2018 Fall | Three-Dimensional Design | | Fundamental principles of three-dimensional design. | Prerequisites: None. | Course Attribute(s): Arizona Shared Unique Number SUN#: ART 1115 | Acad | L+L 3.0 6.0 6.0 | T |
| ART116 | 2018 Fall | Life Drawing I | | Use of form, structure and anatomy of draped and undraped human figure to develop basic principles of sound draftsmanship | Prerequisites: None. | | Acad | L+L 3.0 6.0 6.0 | T |
| ART117 | 2018 Fall | Life Drawing II | | Further study of form, structure, and anatomy of the draped and undraped human | Prerequisites: A grade of C or better in ART116. | | | L+L 3.0 6.0 6.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | figure with emphasis on composition | | | | | |
| ART118 | 2018 Fall | Art Anatomy | | Artistic study of the concept of anatomical unity. Principle skeletal and muscular structures affecting surface form of the human figure. Includes drawing project, portfolio, and tests. | Prerequisites: A grade of C or better in ART116 or permission of Instructor. | | Acad | L+L 3.0 6.0 6.0 | T |
| ART122 | 2018 Fall | Drawing and Composition II | | Emphasis on composition and exploration of drawing media | Prerequisites: A grade of C or better in ART111. | | | L+L 3.0 6.0 6.0 | T |
| ART131 | 2018 Fall | Photography I | | Basic photographic principles and techniques. Basic camera functions and controls. Experience in the image-making process by creating and editing photographs for various display environments. Introduction to the photographic aesthetic and photography's role in society. | Prerequisites: None. | ART131 requires a Camera. Course Attribute(s): General Education Designation: Humanities, Arts and Design - [HU] | Acad | L+L 3.0 6.0 6.0 | T |
| ART132 | 2018 Fall | Photography II | | Advanced camera and darkroom techniques. Aesthetic awareness with personal expression | Prerequisites: A grade of C or better in ART131 or permission of Instructor. | Acad | Acad | L+L 3.0 6.0 6.0 | T |
| ART133 | 2018 Fall | Photography III | | Refinement of aesthetic and technical aspects producing convincing images of highest quality | Prerequisites: A grade of C or better in ART132 or permission of Instructor. | | Acad | L+L 3.0 6.0 6.0 | T |
| ART134 | 2018 Fall | Photography IV | | Emphasis on personal statement and style. Related graphic art forms explored. Development of portfolio | Prerequisites: A grade of C or better in ART133 or permission of Instructor. | | Acad | L+L 3.0 6.0 6.0 | T |
| ART136 | 2023 Fall | Documentary Photography | | Explore the history and contemporary trends of documentary photography. Students will learn how to research and define a topic, ethics of documentary photography, storytelling, production and post production techniques and distribution methods. Students will create a final documentary portfolio. | Prerequisites: A grade of C or better in ART131, or ART142, or permission of Instructor. | | Acad | L+L 3.0 6.0 6.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| ART137 | 2023 Fall | Alternative Photographic Processes | | This course focuses on the 19th-century photographic processes including new picture-making technologies. Discussing the history of photography in relation with techniques taught in class. Students encouraged to explore historical processes in combination with contemporary technologies. Through technical demonstrations, hands-on workshops, and technical assignments, students develop a working knowledge of a range of processes while developing their own visual language. | Prerequisites: None. | | Acad | L+L 3.0 6.0 6.0 | T |
| ART145 | 2018 Fall | Digital Storybook | COM145 STO145 | Enables students to find and develop a narrative representing an aspect of their personal histories. Use of digital technology to produce and archive a storybook. | Prerequisites: None. | | Acad | L+L 1.0 2.0 2.0 | T |
| ART150 | 2018 Fall | Digital Storytelling | COM150 STO150 | Enables students to find and develop their personal stories. Emphasis on the use of digital technology to create, edit, produce and archive a digital story | Prerequisites: None. | | Acad | L+L 3.0 6.0 6.0 | T |
| ART151 | 2019 Spring | Sculpture I | | Exploration of sculptural form and expression in clay, plaster, stone, wood and metal. | Prerequisites: None. | | Acad | L+L 3.0 6.0 6.0 | T |
| ART152 | 2018 Fall | Sculpture II | | Emphasis on control of sculptural media | Prerequisites: A grade of C or better in ART151. | | | L+L 3.0 6.0 6.0 | T |
| ART153 | 2019 Fall | Woodworking I | | Fundamental woodworking techniques to produce creative functional and sculptural, three-dimensional objects. | Prerequisites: None. | | Acad | L+L 3.0 6.0 6.0 | T |
| ART154 | 2019 Fall | Woodworking II | | Advanced design, joinery, fixture building, and woodworking techniques. | Prerequisites: A grade of C or better in ART153. | | | L+L 3.0 6.0 6.0 | T |



Acad

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Application of design principles. | | | | | |
| ART155 | 2018 Fall | Glass Fusing and Slumping I | | Introduction to the basics involved in glass fusing and slumping. The concepts of glass, glass fusing, and glass slumping will be covered with hands-on experience using a variety of techniques to create finished glass projects such as jewelry, dishes, frames, and door bells. | Prerequisites: None. | ART155 may be repeated for a total of twelve (12) credits | Acad | L+L 3.0 6.0 6.0 | T |
| ART156 | 2018 Fall | Glass Fusing and Slumping II | | Further study in the area of glass fusing and slumping. Advanced techniques including Pate-de-Verre, Pattern Bars, watchbands, bracelets, and patterned dishes. | Prerequisites: A grade of C or better in ART155. | ART156 may be repeated for a total of twelve (12) credits | Acad | L+L 3.0 6.0 6.0 | T |
| ART158 | 2018 Fall | Introduction to Glass Blowing | | Introduction to the basics involved in free hand blowing glass. The concepts of hot glass, glass shaping, and glass blowing will be covered with hands-on experience using a variety of techniques to create finished glass projects such as spheres, cones, cups, and other hollow glass objects. | Prerequisites: None. | ART158 may be repeated for a total of twelve (12) credits. | Acad | L+L 3.0 6.0 6.0 | T |
| ART159 | 2018 Fall | Intermediate Glass Blowing | | Further study in the area of glass blowing. Advanced techniques including traditional techniques as well as further investigation into color, form, and scale. | Prerequisites: A grade of C or better in ART158. | ART159 may be repeated for a total of twelve (12) credits. | Acad | L+L 3.0 6.0 6.0 | T |
| ART160 | 2018 Fall | Advanced Glass Blowing | | Further study in the area of glass blowing with emphasis on advanced techniques and design considerations, such as sculpting, larger scale projects, working in multiples, and further refinement of technical skill. | Prerequisites: A grade of C or better in ART159. | ART160 may be repeated for a total of fifteen (15) credit hours. | Acad | L+L 3.0 6.0 6.0 | T |
| ART161 | 2018 Fall | Ceramics I | | Introduction to ceramic materials and techniques of | Prerequisites: None. | | Acad | L+L 3.0 6.0 6.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | hand construction, decorating, glazing and throwing on potters' wheel | | | | | |
| ART162 | 2018 Fall | Ceramics II | | Major emphasis on wheel throwing, glaze making and decorating techniques | Prerequisites: A grade of C or better in ART161. | | | L+L 3.0 6.0 6.0 | T |
| ART165 | 2018 Fall | Watercolor Painting I | | Transparent and Gouache watercolor painting. | Prerequisites: A grade of C or better in (ART111 and ART112) or permission of Instructor. | | Acad | L+L 3.0 6.0 6.0 | T |
| ART166 | 2018 Fall | Watercolor Painting II | | Painting in water soluble media. Emphasis on individual techniques and design. | Prerequisites: A grade of C or better in ART165. | | | L+L 3.0 6.0 6.0 | T |
| ART167 | 2023 Spring | Painting I | | Exploration of technical and expressive possibilities of various media in painting. | Prerequisites: A grade of C or better in (ART111 and ART112) or permission of Instructor. | Acad | Acad | L+L 3.0 6.0 6.0 | T |
| ART168 | 2018 Fall | Painting II | | Continued refinement of painting skills and investigation of new possibilities in painting | Prerequisites: A grade of C or better in ART167 or permission of Instructor. | | Acad | L+L 3.0 6.0 6.0 | T |
| ART171 | 2018 Fall | Jewelry I | | Fundamentals of jewelry making. Covers hand formed methods, including cutting, shaping, forging, soldering, and lost wax technique | Prerequisites: None. | Acad | Acad | L+L 3.0 6.0 6.0 | T |
| ART172 | 2018 Fall | Jewelry II | | Further refinement of personal expression using techniques and design concepts of ART171 | Prerequisites: A grade of C or better in ART171. | | | L+L 3.0 6.0 6.0 | T |
| ART211 | 2018 Fall | Drawing and Composition III | | Advanced development of drawing skill with emphasis on compositional theory | Prerequisites: A grade of C or better in ART122 or permission of Instructor. | | Acad | L+L 3.0 6.0 6.0 | T |
| ART216 | 2018 Fall | Life Drawing III | | Advanced creative study from model in various painting and drawing media | Prerequisites: A grade of C or better in ART117 or permission of Instructor. | | Acad | L+L 3.0 6.0 6.0 | T |
| ART217 | 2018 Fall | Life Drawing IV | | Further development of skills in expressive drawing materials and techniques as applied to finished drawings of the human form | Prerequisites: A grade of C or better in ART216 or permission of Instructor. | Acad | Acad | L+L 3.0 6.0 6.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| ART222 | 2018 Fall | Drawing and Composition IV | | Further study of drawing techniques with emphasis on individual problems and techniques | Prerequisites: A grade of C or better in ART211 or permission of Instructor. | | Acad | L+L 3.0 6.0 6.0 | T |
| ART234 | 2023 Fall | Color Photography | | Basic principles of color theory, camera and input and output techniques using analog or digital photography. | Prerequisites: A grade of C or better in ART131, or AVC142, or permission of Instructor. | Film or digital camera is required. | Acad | L+L 3.0 6.0 6.0 | T |
| ART241 | 2018 Fall | Intaglio | | Introduction to traditional concepts and techniques for Intaglio printmaking. Deals with black and white printing; includes brief introduction to color printing. Covers various tools and materials used in Intaglio | Prerequisites: A grade of C or better in ART111 and ART113. | | | L+L 3.0 6.0 6.0 | T |
| ART242 | 2018 Fall | Lithography | | Provides introduction to concepts and techniques of Lithography, both in plate and stone methods. Focus on black and white Lithographic drawing techniques. Introduction in color printing given | Prerequisites: A grade of C or better in ART111 and ART113. | Acad | | L+L 3.0 6.0 6.0 | T |
| ART250 | 2018 Fall | Introduction to Printmaking | | Introduction to concepts and techniques involved in Fine Art field of Printmaking. Deals with three most basic Printmaking modes of Serigraphy, Woodcut, and Monoprinting in first part of course. Overview of Etching, Lithography and Papermaking in second part of course. | Prerequisites: A grade of C or better in ART111 and ART113. | Acad | | L+L 3.0 6.0 6.0 | T |
| ART251 | 2018 Fall | Sculpture III | | With emphasis on attention to individual problems and techniques | Prerequisites: A grade of C or better in ART152. | | | L+L 3.0 6.0 6.0 | T |
| ART252 | 2018 Fall | Sculpture IV | | Advanced sculpture problems and professional practices | Prerequisites: A grade of C or better in ART251. | Acad | | L+L 3.0 6.0 6.0 | T |
| ART253 | 2018 Fall | Woodcut | | Focuses on relief method of printing, utilizing the techniques of Woodcut. Deals specifically with black and white images. Study of printing materials and tools, | Prerequisites: A grade of C or better in ART111 and ART113. | | | L+L 3.0 6.0 6.0 | T |



Acad

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | papers and printing methods. Relief printing in color introduced. Traditional forms of Woodcut, also an overview of innovative techniques in the field | | | | | |
| ART255 | 1994 Fall | Art Marketing | | Career goals, presentation of artist and art work (portfolio, resume, business cards, catalog), pricing and selling works, networking, establishing a studio, promotion and publicity, writing press releases, proposal writing, business ethics, artist rights, copyright law, contracts and agreements, royalties, record keeping, and communication skills | Prerequisites: None. | | Acad | LEC 3.0 3.0 3.0 | S |
| ART255AA | 1994 Fall | Self Promotion | | Career goals, presentation of artist, communication skills, keeping files and records, developing self-promotional materials | Prerequisites: None. | | Acad | LEC 1.0 1.0 1.0 | S |
| ART255AB | 2016 Summer | The Portfolio | | Choosing the right pieces to include, presenting art work, developing the portfolio. | Prerequisites: None. | | Acad | LEC 1.0 1.0 1.0 | S |
| ART255AC | 1994 Fall | Marketing Fine Art | | Exhibitions and galleries, establishing a studio, alternative markets | Prerequisites: A grade of C or better in ART255AB or permission of Instructor. | | Acad | LEC 1.0 1.0 1.0 | S |
| ART256 | 2018 Fall | Glass Fusing and Slumping III | | Further study in the area of glass fusing and slumping with emphasis on advanced techniques and design considerations, such as, plates designed using different techniques, weaving or strip glass, and combining previous techniques to create projects. | Prerequisites: A grade of C or better in ART156. | ART256 may be repeated for a total of fifteen (15) credits. | Acad | L+L 3.0 6.0 6.0 | T |
| ART257 | 2018 Fall | Glass Fusing and Slumping IV | | Further study of advanced glass fusing and slumping including problems, professional practices, personal expression and | Prerequisites: A grade of C or better in ART256. | ART257 may be repeated for a total of fifteen (15) credits. | Acad | L+L 3.0 6.0 6.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | experimental research into various techniques. | | | | | |
| ART258 | 2018 Fall | Papermaking | | Introduction to concepts and techniques of Fine Art Papermaking. Basic overview of historical origins of craft and importance of modern papermaking to fine arts | Prerequisites: A grade of C or better in ART111 and ART113. | | | L+L 3.0 6.0 6.0 | T |
| ART259 | 2018 Fall | Monoprinting | | Introduction to concepts and techniques for Monoprintmaking. Deals with la prima technique used in painting in first part of course. Multi-plate printing and how method of printing relates to use of color and separation in second part of course | Prerequisites: A grade of C or better in ART111 and ART113. | Acad | | L+L 3.0 6.0 6.0 | T |
| ART261 | 2018 Fall | Ceramics III | | Emphasis on wheel throwing skill and individual style development | Prerequisites: A grade of C or better in ART162. | | | L+L 3.0 6.0 6.0 | T |
| ART262 | 2018 Fall | Ceramics IV | | Experimental work in clays and glazes | Prerequisites: A grade of C or better in ART261. | Acad | | L+L 3.0 6.0 6.0 | T |
| ART263 | 2018 Fall | Figure Painting | | Study of the nude and clothed figure in painting with special attention upon relevant color palettes, direct and indirect figurative painting techniques, and development of anatomical knowledge and compositional structure. Students will draw upon both historical and contemporary modes of depicting the figure to develop a personalized approach to figure painting. Live models, photographs, drawings, "Planes of the Head" models, and the studio skeleton will be used as the basis of projects. | Prerequisites: A grade of C or better in ART167 or permission of Instructor. | Previous experience drawing from the live model recommended. Oil paint is the preferred medium but students may work in other painting media if they have previous experience. ART263 may be r<sub>A</sub>e<sub>c</sub>p<sub>a</sub>e<sub>d</sub>ated for credit.<br><br>Acad | Acad | L+L 3.0 6.0 6.0 | T |
| ART264 | 2019 Spring | Glass Casting | | Further study of glass art with a focus on casting and kiln working, including problems, professional practices, personal expression and | Prerequisites: A grade of C or better in ART160. | ART264 may be repeated for a total of fifteen (15) credits. | Acad | L+L 3.0 6.0 6.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | experimental application of various techniques. | | | | | |
| ART265 | 2018 Fall | Watercolor Painting III | | Continuation of watercolor painting with emphasis on control and expression | Prerequisites: A grade of C or better in ART166. | | | L+L 3.0 6.0 6.0 | T |
| ART266 | 2018 Fall | Watercolor Painting IV | | Advanced problems directed toward more personal expression | Prerequisites: A grade of C or better in ART265. | | | L+L 3.0 6.0 6.0 | T |
| ART267 | 2018 Fall | Painting III | | Development of materials and techniques of painting. Individual problem-solving | Prerequisites: A grade of C or better in ART168 or permission of Instructor. | | Acad | L+L 3.0 6.0 6.0 | T |
| ART268 | 2018 Fall | Painting IV | | Advanced problem in painting. Study with greater emphasis on personal expression | Prerequisites: A grade of C or better in ART267 or permission of Instructor. | Acad | Acad | L+L 3.0 6.0 6.0 | T |
| ART271 | 2018 Fall | Jewelry III | | Emphasis on advanced jewelry design techniques and practices. | Prerequisites: A grade of C or better in ART172. | Further refinement and mastery of the skills and techniques introduced in ART171 and ART172. | Acad | L+L 3.0 6.0 6.0 | T |
| ART272 | 2018 Fall | Jewelry IV | | Emphasis on expanding repertoire of advanced jewelry design techniques and practices. | Prerequisites: A grade of C or better in ART271. | Further refinement and mastery of the skills and techniques introduced in ART271. | Acad | L+L 3.0 6.0 6.0 | T |
| ART275 | 2018 Fall | Lost Wax Casting I | | Introduction to lost wax casting techniques for jewelry and small sculptures. Emphasis on design concepts as related to three-dimensional forms | Prerequisites: None. | | Acad | L+L 3.0 6.0 6.0 | T |
| ART276 | 2018 Fall | Lost Wax Casting II | | Advanced course in lost wax casting techniques for jewelry and small sculptures. Emphasis on the continuation of individual expression using the lost wax method | Prerequisites: A grade of C or better in ART275. | | | L+L 3.0 6.0 6.0 | T |
| ART277 | 2018 Fall | Textiles I | | Introduction to exploration of textile media. | Prerequisites: A grade of C or better in ART112 or permission of Instructor. | | Acad | L+L 3.0 6.0 6.0 | T |
| ART282AA | 2020 Fall | Service-Learning Experience in Art | | Unpaid Service-Learning (SL) experience, completed with approved community partner. | Prerequisites: Permission of Instructor. | ART282AA may be repeated for a total of six (6) credit hours. Standard grading available according to procedures outlined in catalog. | Acad | LAB 1.0 1.0 0.0 | L |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| ART282AB | 2020 Fall | Service-Learning Experience in Art | | Unpaid Service-Learning (SL) experience, completed with approved community partner. | Prerequisites: Permission of Instructor. | ART282AB may be repeated for a total of six (6) credit hours. Standard grading available according to procedures outlined in catalog. | Acad | LAB 2.0 2.0 0.0 | L |
| ART282AC | 2020 Fall | Service-Learning Experience in Art | | Unpaid Service-Learning (SL) experience, completed with approved community partner. | Prerequisites: Permission of Instructor. | ART282AC may be repeated for a total of six (6) credit hours. Standard grading available according to procedures outlined in catalog. | Acad | LAB 3.0 3.0 0.0 | L |
| ART290AA | 2018 Fall | Studio Art | | Studio course for art majors allowing continuation in a subject field. | Prerequisites: Permission of Instructor. | ART290AA students must have completed advanced courses in the subject field. ART290AA may be repeated for credit. | Acad | L+L 1.0 2.0 2.0 | T |
| ART290AB | 2018 Fall | Studio Art | | Studio course for art majors allowing continuation in a subject field. | Prerequisites: Permission of Instructor. | ART290AB students must have completed advanced courses in the subject field. ART290AB may be repeated for credit. | Acad | L+L 2.0 4.0 4.0 | T |
| ART290AC | 2018 Fall | Studio Art | | Studio course for art majors allowing continuation in a subject field. | Prerequisites: Permission of Instructor. | ART290AC students must have completed advanced courses in the subject field. ART290AC may be repeated for credit. | Acad | L+L 3.0 6.0 6.0 | T |
| ART290BC | 2018 Fall | Studio Art: Drawing | | Studio course for art majors allowing continuation in a subject field. | Prerequisites: A grade of C or better in ART111 or permission of Instructor. | ART290BC may be repeated for credit. | Acad | L+L 3.0 6.0 6.0 | T |
| ART290CC | 2018 Fall | Studio Art: Mixed Media | | Studio course for art majors allowing continuation in a subject field. | Prerequisites: A grade of C or better in ART112 or permission of Instructor. | ART290CC may be repeated for credit. | Acad | L+L 3.0 6.0 6.0 | T |
| ART290DC | 2018 Fall | Studio Art: Life Drawing | | Studio course for art majors allowing continuation in a subject field. | Prerequisites: A grade of C or better in ART117 or permission of Instructor. | ART290DC may be repeated for credit. | Acad | L+L 3.0 6.0 6.0 | T |
| ART290EC | 2018 Fall | Studio Art: Photography | | Studio course for art majors allowing continuation in a subject field. | Prerequisites: A grade of C or better in ART132 or permission of Instructor. | ART290EC may be repeated for credit. | Acad | L+L 3.0 6.0 6.0 | T |
| ART290FF | 2018 Fall | Studio Art: Sculpture | | Studio course for art majors allowing continuation in a subject field. | Prerequisites: A grade of C or better in ART252 or permission of Instructor. | ART290FF may be repeated for credit. | Acad | L+L 3.0 6.0 6.0 | T |
| ART290GC | 2018 Fall | Studio Art: Ceramics | | Studio course for art majors allowing continuation in a subject field. | Prerequisites: A grade of C or better in ART162 or permission of Instructor. | ART290GC may be repeated for credit. | Acad | L+L 3.0 6.0 6.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| ART290HC | 2018 Fall | Studio Art: Watercolor | | Studio course for art majors allowing continuation in a subject field. | Prerequisites: A grade of C or better in ART166 or permission of Instructor. | ART290HC may be repeated for credit. | Acad | L+L 3.0 6.0 6.0 | T |
| ART290JC | 2018 Fall | Studio Art: Color | | Studio course for art majors allowing continuation in a subject field. | Prerequisites: A grade of C or better in ART113 or permission of Instructor. | ART290JC may be repeated for credit. | Acad | L+L 3.0 6.0 6.0 | T |
| ART290KC | 2018 Fall | Studio Art: Glazing Techniques | | Studio course for art majors allowing continuation in a subject field. | Prerequisites: A grade of C or better in ART162 or permission of Instructor. | ART290KC may be repeated for credit. | Acad | L+L 3.0 6.0 6.0 | T |
| ART290LC | 2018 Fall | Studio Art: Clay Bodies | | Studio course for art majors allowing continuation in a subject field. | Prerequisites: A grade of C or better in ART162 or permission of Instructor. | ART290LC may be repeated for credit. | Acad | L+L 3.0 6.0 6.0 | T |
| ART290MC | 2018 Fall | Studio Art: Digital Photography | | Studio course for art majors allowing continuation in a subject field. | Prerequisites: A grade of C or better in ART143 or permission of Instructor. | ART290MC may be repeated for credit. | Acad | L+L 3.0 6.0 6.0 | T |
| ART290PC | 2018 Fall | Studio Art: Painting | | Studio course for art majors allowing continuation in a subject field. | Prerequisites: A grade of C or better in ART168 or permission of Instructor. | ART290PC may be repeated for credit. | Acad | L+L 3.0 6.0 6.0 | T |
| ART290WC | 2019 Fall | Studio Art: Woodworking | | Studio course for art majors allowing continuation in a subject field. | Prerequisites: A grade of C or better in ART154 or permission of Instructor. | ART290WC may be repeated for credit. | Acad | L+L 3.0 6.0 6.0 | T |
| ART295AC | 2018 Fall | Art Workshop/Seminar: Drawing | | Advanced level workshop seminar in art disciplines. | Prerequisites: Minimum of three (3) credits introductory and three (3) credits intermediate level courses in specific field or permission of Department or Division Chair. | | | L+L 3.0 6.0 6.0 | T |
| ART295BA | 2018 Fall | Art Workshop/Seminar: Sculpture | | Advanced level workshop seminar in art disciplines. | Prerequisites: Minimum of three (3) credits introductory and three (3) credits intermediate level courses in specific field or permission of Department or Division Chair. | Acad | | L+L 1.0 2.0 2.0 | T |
| ART295BC | 2018 Fall | Art Workshop/Seminar: Sculpture | | Advanced level workshop seminar in art disciplines. | Prerequisites: Minimum of three (3) credits | | | L+L 3.0 6.0 6.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | introductory and three (3) credits intermediate level courses in specific field or permission of Department or Division Chair. | | | | |
| ART295CA | 2018 Fall | Art Workshop/Seminar: Life Drawing | | Advanced level workshop seminar in art disciplines | Prerequisites: Minimum of three (3) credits introductory and three (3) credits intermediate level courses in specific field or permission of Department or Division Chair. | | | L+L 1.0 2.0 2.0 | T |
| ART295DA | 2018 Fall | Art Workshop/Seminar: Photography | | Advanced level workshop seminar in art disciplines. | Prerequisites: Minimum of three (3) credits introductory and three (3) credits intermediate level courses in specific field or permission of Department or Division Chair. | Acad | | L+L 1.0 2.0 2.0 | T |
| ART295DB | 2018 Fall | Art Workshop/Seminar: Photography | | Advanced level workshop seminar in art disciplines. | Prerequisites: Minimum of three (3) credits introductory and three (3) credits intermediate level courses in specific field or permission of Department or Division Chair. | Acad | | L+L 2.0 4.0 4.0 | T |
| ART295DC | 2018 Fall | Art Workshop/Seminar: Photography | | Advanced-level workshop seminar in art disciplines. | Prerequisites: Minimum of three (3) credits introductory and three (3) credits intermediate level courses in specific field or permission of Department or Division Chair. | Acad | | L+L 3.0 6.0 6.0 | T |
| ART295EA | 2018 Fall | Art Workshop/Seminar: Painting | | Advanced level workshop seminar in art disciplines. | Prerequisites: Minimum of three (3) credits introductory and three (3) credits intermediate level courses in specific field or permission of Department or Division Chair. | Acad | | L+L 1.0 2.0 2.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| ART295EC | 2018 Fall | Art Workshop/Seminar: Painting | | Advanced level workshop seminar in art disciplines. | Prerequisites: Minimum of three (3) credits introductory and three (3) credits intermediate level courses in specific field or permission of Department or Division Chair. | | | L+L 3.0 6.0 6.0 | T |
| ART295GA | 2018 Fall | Art Workshop/Seminar: Ceramics | | Advanced level workshop seminar in art disciplines. | Prerequisites: Minimum of three (3) credits introductory and three (3) credits intermediate level courses in specific field or permission of Department or Division Chair. | Acad | | L+L 1.0 2.0 2.0 | T |
| ART295GB | 2018 Fall | Art Workshop/Seminar: Ceramics | | Advanced level workshop seminar in art disciplines. | Prerequisites: Minimum of three (3) credits introductory and three (3) credits intermediate level courses in specific field or permission of Department or Division Chair. | Acad | | L+L 2.0 4.0 4.0 | T |
| ART295GC | 2018 Fall | Art Workshop/Seminar: Ceramics | | Advanced level workshop seminar in art disciplines. | Prerequisites: Minimum of three (3) credits introductory and three (3) credits intermediate level courses in specific field or permission of Department or Division Chair. | Acad | | L+L 3.0 6.0 6.0 | T |
| ART295HC | 2018 Fall | Art Workshop/Seminar: Mixed Media | | Advanced level workshop seminar in art disciplines. | Prerequisites: Minimum of three (3) credits introductory and three (3) credits intermediate level courses in specific field or permission of Department or Division Chair. | Acad | | L+L 3.0 6.0 6.0 | T |
| ART295LA | 2018 Fall | Art Workshop/Seminar: Glazing Techniques | | Advanced level workshop seminar in art disciplines | Prerequisites: Permission of Instructor. | | Acad | L+L 1.0 2.0 2.0 | T |
| ART295LB | 2018 Fall | Art Workshop/Seminar: Glazing Techniques | | Advanced level workshop seminar in art disciplines | Prerequisites: Permission of Instructor. | | Acad | L+L 2.0 4.0 4.0 | T |
| ART295LC | 2018 Fall | Art Workshop/Seminar: Glazing Techniques | | Advanced level workshop seminar in art disciplines | Prerequisites: Permission of Instructor. | Acad | Acad | L+L 3.0 6.0 6.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| ART295MC | 2018 Fall | Art Workshop/Seminar: Clay Bodies | | Advanced level workshop seminar in art disciplines | Prerequisites: Permission of Instructor. | | Acad | L+L 3.0 6.0 6.0 | T |
| ART295NA | 2018 Fall | Art Workshop/Seminar: Glass Blowing | | Advanced level workshop seminar in art disciplines. | Prerequisites: Minimum of three (3) credits introductory and three (3) credits intermediate level courses in specific field or permission of Department or Division Chair. | ART295NA may be repeated for a total of five (5) credits. | Acad | L+L 1.0 2.0 2.0 | T |
| ASB100 | 2011 Fall | Introduction to Global Health | | The study of human health patterns at an international and local scale. Focus on pressing global health challenges that the world faces today are examined from a broad social, ecological, and cultural context. | Prerequisites: None. | Course Attribute(s): General Education Designation: Global Awareness - [G] General Education Designation: Social and Behavioral Sciences - [SB] | Acad | LEC 3.0 3.0 3.0 | S |
| ASB102 | 2017 Spring | Introduction to Cultural Anthropology | | Principles of cultural anthropology, with illustrative materials from a variety of cultures. The nature of culture; social, political, and economic systems; religion, aesthetics and language. | Prerequisites: None. | | Acad | LEC 3.0 3.0 3.0 | S |
| ASB202 | 2017 Spring | Ethnic Relations in the United States | AFR202 CCS202 | Basic concepts and processes, including historic overview, of interethnic relations in the United States: culture, race, ethnicity, ethnocentrism, prejudice, discrimination, racism, assimilation, acculturation, and individual and group responses to interethnic contact. Cultural knowledge and intercultural communication skills and perspectives as fundamental tools for successful management of social relations in a multicultural world. | Prerequisites: None. | Course Attribute(s): General Education Designation: Cultural Diversity - [C] General Education Designation: Historical Awareness - [H] General Education Designation: Social and Behavioral Sciences - [SB] | Acad | LEC 3.0 3.0 3.0 | S |
| ASB211 | 2024 Fall | Women Across Cultures | | Cross-cultural analysis of the economic, social, political, and | Prerequisites: None. | | Acad | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | religious factors that affect women's status in traditional and modern societies. | | | | | |
| ASB214 | 2012 Summer I | Magic, Witchcraft and Healing: An Introduction to Comparative Religion | | Origins, elements, and forms of religion; a comparative survey of religious beliefs, myths, rituals and symbolism including magic, witchcraft and healing as practiced in selected regions of the world; the place of religion in the total culture | Prerequisites: None. | Course Attribute(s): General Education Designation: Global Awareness - [G] General Education Designation: Humanities, Arts and Design - [HU] | Acad | LEC 3.0 3.0 3.0 | S |
| ASB220 | 2006 Fall | Anthropology Goes to the Movies | | Archaeology and anthropology through the lens of popular films of the 20th and 21st Century. Explores the popularity of ancient humans as a topic for film ventures and how accurately they are portrayed. Provides the student with a basic knowledge of anthropology and offers film images of anthropologists and archaeologists and the practice of archaeology and anthropology. Analyzes accuracy of films depicting culture and our human past. | Prerequisites: None. | Course Attribute(s): General Education Designation: Humanities, Arts and Design - [HU] | Acad | LEC 3.0 3.0 3.0 | S |
| ASB222 | 2018 Fall | Buried Cities and Lost Tribes: Old World | | Introduction to archaeology through discoveries and the researchers who made them. Emphasis on methods of archaeological fieldwork and what these discoveries reveal about humanity, including the nature of archaeological inquiry, the development of human social groups, the changing role of religion in evolving societies, the origins of agriculture, the origins of settled lifeways, the rise of cities and complex societies, political strife across different cultures and the forces which | Prerequisites: None. | Course Attribute(s): General Education Designation: Global Awareness - [G] General Education Designation: Historical Awareness - [H] General Education Designation: Humanities, Arts and Design - [HU] General Education Designation: Social and Behavioral Sciences - [SB] | Acad | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | tend to fragment societies. Examples drawn from Africa, Asia, Europe, the Pacific Islands, and Australia | | | | | |
| ASB223 | 2014 Summer | Buried Cities and Lost Tribes: New World | | Introduction to archaeology through discoveries and the researchers who made them. Emphasis on methods of archaeological fieldwork and what these discoveries reveal about humanity, including the nature of archaeological inquiry, the development of human social groups, the changing role of religion in evolving societies, the origins of agriculture, the origins of settled lifeways, the rise of cities and complex societies, political strife across different cultures and the forces which fragment societies. Examples drawn from North America, Central America, and South America. | Prerequisites: None. | | Acad | LEC 3.0 3.0 3.0 | S |
| ASB226 | 2012 Spring | Human Impacts on Ancient Environments | | Interrelationship between humans and their environments, using archaeological data and case studies beginning with early hominids. Uses of research to identify environmental change and distinguish between climatic and human-induced global change. Explores ways in which prehistoric people caused and responded to environmental changes | Prerequisites: None. | Course Attribute(s): General Education Designation: Historical Awareness - [H] General Education Designation: Social and Behavioral Sciences - [SB] | Acad | LEC 3.0 3.0 3.0 | S |
| ASB230 | 1995 Fall | Principles of Archaeology | | Introduction to archaeological methods and theory | Prerequisites: None. | Course Attribute(s): General Education Designation: Social and Behavioral Sciences - [SB] | Acad | LEC 3.0 3.0 3.0 | S |
| ASB231 | 2018 Fall | Archaeological Field Methods | | Excavation of an archaeological site; recording and interpreting data collected during the field experience. Overview of the cultures | Prerequisites: None. | Course Attribute(s): General Education Designation: Natural Sciences (General) - [SG] | Acad | L+L 4.0 6.0 6.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | concerned; contemporary issues in archaeology. | | | | | |
| ASB234 | 2024 Fall | Art and Archaeology of Ancient Egypt | | Introduction to the major social, political, religious and economic institutions of Ancient Egypt. The historical events and people that shaped Egyptian civilization. | Prerequisites: None. | | Acad | LEC 3.0 3.0 3.0 | S |
| ASB235 | 2024 Fall | Southwest Archaeology | | Anthropological perspective and comparative study of the cultures of prehistoric native peoples of the North American southwest. | Prerequisites: None. | | Acad | LEC 3.0 3.0 3.0 | S |
| ASB245 | 2012 Summer I | Indians of the Southwest | | Comparative study of the cultures, including the histories and present status, of Indians of the Southwest | Prerequisites: None. | | Acad | LEC 3.0 3.0 3.0 | S |
| ASB252 | 2014 Summer | Sports and Culture | | Cross-cultural examination of symbolic and social dimensions of sports, past and present. | Prerequisites: None. | General Education Designation: Global Awareness - [G] General Education Designation: Social and Behavioral Sciences - [SB] | Acad | LEC 3.0 3.0 3.0 | S |
| ASB253 | 2011 Spring | Death and Dying Across Cultures | | Responses to death and dying in cultures around the world. Explanations for particular cultural responses to death and dying. Examples drawn from ancient and contemporary cultures | Prerequisites: None. | Course Attribute(s): General Education Designation: Global Awareness - [G] General Education Designation: Humanities, Arts and Design - [HU] | Acad | LEC 3.0 3.0 3.0 | S |
| ASB282AA | 2013 Fall | Service-Learning Experience in Anthropology | | Unpaid Service-Learning (SL) experience, completed with approved community partner. | Prerequisites: Permission of Instructor. | ASB282AA may be repeated for a total of six (6) credit hours. Standard grading available according to procedures outlined in catalog. | Acad | LAB 1.0 1.0 0.0 | L |
| ASB282AB | 2013 Fall | Service-Learning Experience in Anthropology | | Unpaid Service-Learning (SL) experience, completed with approved community partner. | Prerequisites: Permission of Instructor. | ASB282AB may be repeated for a total of six (6) credit hours. Standard grading available according to procedures outlined in catalog. | Acad | LAB 2.0 2.0 0.0 | L |
| ASB282AC | 2013 Fall | Service-Learning Experience in Anthropology | | Unpaid Service-Learning (SL) experience, completed with approved community partner. | Prerequisites: Permission of Instructor. | ASB282AC may be repeated for a total of six (6) credit hours. Standard grading available according to procedures outlined in catalog. | Acad | LAB 3.0 3.0 0.0 | L |
| ASB298AA | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured | Prerequisites: Permission of Program Director or Instructor. | | Acad | LAB 1.0 1.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | | | | | |
| ASB298AB | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | Prerequisites: Permission of Program Director or Instructor. | | Acad | LAB 2.0 2.0 0.0 | Z |
| ASB298AC | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | Prerequisites: Permission of Program Director or Instructor. | | Acad | LAB 3.0 3.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| ASD100 | 2012 Spring | Foundations of Addictions and Substance Use Disorders | | Introduction to the foundations of the alcohol and drug abuse rehabilitation field. Emphasis on the roles and responsibilities of the addictions counselor, ethical issues, pharmacology, family dynamics, dual diagnosis, intervention techniques, self-help groups, levels of care, symptom identification, and conducting alcohol/drug histories. Interactive work stressed. | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| ASD102 | 2012 Spring | Communication Skills in Treating Addiction | | Further examination and refinement of communication and beginning professional counseling skills as they relate to the addicted client and family members. Emphasis on practicing the application of these skills to various situations associated with treatment planning. Recordkeeping/documentation skills emphasized. | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| ASD110 | 2012 Spring | Pharmacology of Substances of Abuse and Dependency | | Exploration of the pharmacology of substance of abuse and dependency. Examines the effects of psychopharmacological chemicals on human physiology. Emphasis on identification and management of substances of abuse and dependency. | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| ASD120 | 2015 Fall | Professional Ethics in Addictions and Substance Use Disorders | | Exploration of topics relative to the professional and ethical development of the addictions and substance use disorders counselor, including codes of ethics, confidentiality laws, professionalism and boundary issues, and the meeting of individual counselor needs within the field. | Prerequisites: None. | | Occ | LEC 1.0 1.0 1.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| ASD145 | 2012 Spring | AIDS and Addiction | | Exploration of AIDS and its relationship to addiction. Emphasis on myths and realities of AIDS, personal values, feelings, and limitations and treatment goals. | Prerequisites: None. | | Occ | LEC 1.0 1.0 1.0 | S |
| ASD146 | 2020 Spring | Peer Support Specialist | | Introduction to the role and foundational responsibilities of a peer support specialist in the field of addictions and substance use. Explores basic pharmacology, ethics, case management, and crisis management. Recovery-Oriented Systems of Care (ROSC) is emphasized. | Prerequisites: None. Corequisites: ASD147. | ASD146 has not been approved by any state's Department of Health Services / Department of Behavioral Services (DHS) and may not lead to certification as a Peer Support Specialist/Recovery Support Specialist by DHS. Completion of ASD146 and ASD147 may lead to certification as a National Certified Peer Recovery Support Specialist by the National Certification Commission for Addiction Professionals (NCC AP) or in Peer Recovery by the International Certification & Reciprocity Consortium (IC&RC). | Occ | LEC 4.0 4.0 4.0 | S |
| ASD147 | 2020 Spring | Peer Support Specialist Practicum | | Peer support specialist preparation related to addictions and substance use disorders. Opportunity for students to use their developed knowledge and skills in an applied setting with supervision. | Prerequisites: None. Corequisites: ASD146. | ASD147 requires completion of 200 hours of practice experience. Course has not been approved by any state's Department of Health Services / Department of Behavioral Services (DHS) and may not lead to certification as a Peer Support Specialist/Recovery Support Specialist by DHS. Completion of ASD146 and ASD147 may lead to certification as a National Certified Peer Recovery Support Specialist by the National Certification Commission for Addiction Professionals (NCC AP) or in Peer Recovery by the International Certification & | Occ | LAB 3.0 5.0 5.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Reciprocity Consortium (IC&RC). | | | |
| ASD148 | 2020 Spring | Introduction to the Science of Prevention | | Overview of the science underlying evidence-based prevention interventions and strategies and the effective application of these approaches in prevention practice. | Prerequisites: None. | | Occ | LEC 1.0 1.0 1.0 | S |
| ASD149 | 2020 Spring | Physiology and Pharmacology for Prevention | | Overview of the physiology and pharmacology of psychoactive substances and their effects on the brain to affect mood, cognition, and behavior and the consequences of such use on the individual, family, and community. | Prerequisites: None. | | Occ | LEC 1.0 1.0 1.0 | S |
| ASD150 | 2012 Spring | Principles of Self-Help Groups | | Overview of the fundamental principles, concepts and historical antecedents of the various self-help groups. Emphasis on the self-help groups of Alcoholics Anonymous, Al-anon, Alateen, Narcotics Anonymous, Co-dependents Anonymous, and Adult Children of Alcoholics. | Prerequisites: None. | | Occ | LEC 2.0 2.0 2.0 | S |
| ASD151 | 2020 Spring | Prevention Interventions and Policies | | Overview of primary evaluation methods used to measure evidence-based prevention interventions and gives guidance in applying them to "real-world" prevention settings. | Prerequisites: None. | | Occ | LEC 1.0 1.0 1.0 | S |
| ASD152 | 2020 Spring | Family-Based Prevention Interventions | | Overview of the family as the primary socialization agent of children, the science behind family-based prevention interventions, and the application of such evidence-based approaches to help prevent the onset of substance use in children. | Prerequisites: None. | | Occ | LEC 1.0 1.0 1.0 | S |
| ASD153 | 2020 Spring | School-Based Prevention Interventions | | Overview of the role of the school in society, the science | Prerequisites: None. | | Occ | LEC 1.0 1.0 1.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | behind school-based prevention interventions, and the application of such evidence-based approaches in school settings around the world. | | | | | |
| ASD154 | 2020 Spring | Workplace-Based Prevention Interventions | | Overview of the role of work and the workplace in society, how stressors and other work-related influences affect risk of substance use, the science behind workplace prevention interventions, and the application of such evidence-based approaches in work settings around the world. | Prerequisites: None. | | Occ | LEC 1.0 1.0 1.0 | S |
| ASD155 | 2020 Spring | Environment-Based Prevention Interventions | | Overview of the science underlying evidence-based substance use prevention using environmental interventions, involving policy, and community-wide strategies. | Prerequisites: None. | | Occ | LEC 1.0 1.0 1.0 | S |
| ASD156 | 2020 Spring | Media-Based Prevention Interventions | | Overview of the science underlying the use of media for substance use prevention interventions. | Prerequisites: None. | | Occ | LEC 1.0 1.0 1.0 | S |
| ASD157 | 2020 Spring | Community-Based Prevention Implementation Systems | | Overview of the science underlying the systems approach to prevention interventions and guidance for developing such approaches, as well as exemplars of evidence-based drug use prevention systems. | Prerequisites: None. | | Occ | LEC 1.0 1.0 1.0 | S |
| ASD158 | 2020 Spring | Gambling Disorders Prevention | | Overview of gambling disorders prevention. Emphasis on current prevention research. Also includes information on gambling prevention resources. | Prerequisites: None. | | Occ | LEC 1.0 1.0 1.0 | S |
| ASD159 | 2020 Spring | Adolescent Substance Use Prevention | | Adolescent substance use prevention issues. Emphasis on current and developing adolescent prevention | Prerequisites: None. | | Occ | LEC 1.0 1.0 1.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | information. Covers common adolescent substance use characteristics and prevention strategies. | | | | | |
| ASD160 | 2020 Spring | Behavioral Addictions Prevention | | Overview of behavioral addictions prevention issues. Emphasis on current research. Also includes community resources information. | Prerequisites: None. | | Occ | LEC 1.0 1.0 1.0 | S |
| ASD161 | 2012 Spring | Beginning Clinical Documentation Skills | | Overview of addictions and substance use disorders counseling, interviewing, and documentation. Includes record keeping and documentation skills. Alcohol and drug abuse counselor core functions emphasized. | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| ASD165 | 2012 Spring | Theories and Techniques in the Treatment of Addictions | | Overview of counseling theories including the application to addictions and substance use disorders groups. Recordkeeping skills and beginning counseling skills emphasized. | Prerequisites: None. | | Occ | LEC 2.0 2.0 2.0 | S |
| ASD220 | 2012 Spring | Family Dynamics and Addiction | | Analysis of the impact of addictions on all the members of a family. Interviewing, assessment and therapeutic approaches particularly useful for these family members presented. | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| ASD226 | 2012 Spring | Counseling Multicultural and Diverse Populations | | Exploration of influences of culture and diversity on addictions and substance abuse. Emphasis on recovery and therapeutic relationships. | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| ASD236 | 2012 Spring | Relapse, Recovery, and Addiction | | Review of the bio-psycho-social processes of recovery and relapse in addictions. Exploration into those factors that both contribute to and inhibit recovery and relapse. | Prerequisites: None. | | Occ | LEC 2.0 2.0 2.0 | S |
| ASD245 | 2012 Spring | Co-Occurring Disorders | | Examines co-occurring disorders from the bio-psycho-social model. Includes causes, | Prerequisites: None. | | Occ | LEC 2.0 2.0 2.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | consequences, assessment, and treatment, emphasizing the psychoeducational model of treatment. | | | | | |
| ASD250 | 2012 Spring | Group Interventions | | Focus on group dynamics and group process as they relate to addictions and substance use disorders. Exploration of group developmental stages, family intervention models, various counseling approaches/techniques and their application to therapeutic, education and family groups. | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| ASD275 | 2012 Spring | Advanced Theory and Techniques in the Treatment of Addiction Disorders | | Capstone course for level two certificate in addictions and substance use disorders program. Focus on counseling theories and techniques used by counselors as they relate to the client and family members. | Prerequisites: A grade of C or better in ASD220, ASD226, ASD245 and ASD250 or permission of Instructor. | | Occ | LEC 3.0 3.0 3.0 | S |
| ASD280 | 2018 Fall | Addictions and Substance Use Disorders Practicum | | Opportunity for advanced students to use his/her developed knowledge and skills in an applied setting with supervision. | Prerequisites: A grade of C or better in ASD275 or permission of Department or Division. | ASD280 may be repeated for a total of twelve (12) credit hours. | Occ | LAB 6.0 18.0 18.0 | T |
| ASD285 | 2012 Spring | Addictions Seminar | | Special topics in addictions and substance use disorders with an emphasis on current issues not covered in other addictions and substance use disorders courses. | Prerequisites: None. | ASD285 may be repeated for a total of four (4) credit hours. | Occ | LEC 1.0 1.0 1.0 | S |
| ASD285AA | 2012 Spring | Treatment for Stimulant Use Disorders Seminar | | Stimulant use disorder treatment issues. Emphasis on current and developing treatment information. Covers common stimulant abuse characteristics and treatment strategies. Also includes community resource information. | Prerequisites: None. | ASD285AA may be repeated for a total of four (4) credit hours. | Occ | LEC 1.0 1.0 1.0 | S |
| ASD285BB | 2012 Spring | Adolescent Substance Abuse Treatment Seminar | | Adolescent substance abuse treatment issues. Emphasis on current and developing treatment information. Covers | Prerequisites: None. | ASD285BB may be repeated for a total of four (4) credit hours. | Occ | LEC 1.0 1.0 1.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | common adolescent substance abuse characteristics and treatment strategies. Also includes community resource information. | | | | | |
| ASD285CC | 2012 Spring | Addiction Review Seminar | | A brief review of current addiction issues. Emphasis on current and developing treatment information. Covers common alcohol and drug addiction characteristics and treatment strategies. Also includes community resource information. | Prerequisites: None. | ASD285CC may be repeated for a total of four (4) credit hours. | Occ | LEC 1.0 1.0 1.0 | S |
| ASD285DD | 2012 Spring | Motivation for Change in Substance Abuse Treatment Seminar | | Issues regarding motivational change in substance abuse treatment. Emphasis on current and developing treatment information. Covers common motivational change techniques. Also includes community resource information. | Prerequisites: None. | ASD285DD may be repeated for a total of four (4) credit hours. | Occ | LEC 1.0 1.0 1.0 | S |
| ASD285EE | 2012 Spring | Domestic Violence and Substance Abuse Seminar | | Domestic violence and substance abuse treatment issues. Emphasis on current and developing domestic violence and substance abuse information. Covers techniques, strategies, and treatment modalities for domestic violence and substance abuse patients. Also includes community resource information. | Prerequisites: None. | ASD285EE may be repeated for a total of four (4) credit hours. | Occ | LEC 1.0 1.0 1.0 | S |
| ASD285FF | 2012 Spring | Street Drugs Seminar | | Street drug issues. Emphasis on current and developing street drug information. Covers techniques strategies and treatment modalities for street drug abuse patients. Also includes community resource information. | Prerequisites: None. | ASD285FF may be repeated for a total of four (4) credit hours. | Occ | LEC 1.0 1.0 1.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| ASD285GG | 2012 Spring | Addictive and Medical Plants Seminar | | Addictive and medical plant issues. Emphasis on current and developing addictive and medical plant information. Covers addictive and medical plant typology. Also includes community resource information. | Prerequisites: None. | ASD285GG may be repeated for a total of four (4) credit hours. | Occ | LEC 1.0 1.0 1.0 | S |
| ASD285HH | 2012 Spring | Intervention and Treatment for Addictions and Substance Use Disorders Seminar | | Brief interventions and treatment for addictions and substance use disorders. Emphasis on current and developing intervention and treatment information. Covers treatment and intervention techniques for use with addictions and substance use disorders. Also includes community resource information. | Prerequisites: None. | ASD285HH may be repeated for a total of four (4) credit hours. | Occ | LEC 1.0 1.0 1.0 | S |
| ASD285II | 2012 Spring | Multicultural Aspects | | Multicultural aspects of counseling in addictions and substance use disorders. Emphasis on current and developing treatment information. Covers common aspects of multicultural characteristics and treatment strategies. Also explores ethical counselor/client relationships. | Prerequisites: None. | ASD285II may be repeated for a total of four (4) credit hours. | Occ | LEC 1.0 1.0 1.0 | S |
| ASD285JJ | 2012 Spring | Clinical Supervision Training of Supervisors | | Clinical supervision training of supervisor issues. Emphasis on current and developing treatment information. Also includes community resource information. | Prerequisites: None. | ASD285JJ may be repeated for a total of four (4) credit hours. | Occ | LEC 1.0 1.0 1.0 | S |
| ASD285KK | 2012 Spring | Recovery-Oriented Systems of Care Seminar | | Overview of recovery-oriented systems of care programs. Covers research, development, and characteristics of programs in addition to applicable federal mandates. | Prerequisites: None. | ASD285KK may be repeated for a total of four (4) credit hours. | Occ | LEC 1.0 1.0 1.0 | S |
| ASD285LL | 2012 Spring | Gambling Addiction Seminar | | A brief review of gambling addiction issues. Emphasis on | Prerequisites: None. | ASD285LL may be repeated for a total of four (4) credit hours. | Occ | LEC 1.0 1.0 1.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | current research, intervention, and treatments in the field. Also includes community resources information. | | | | | |
| ASD285MM | 2012 Spring | Sexual Addiction Seminar | | A brief review of sexual addiction issues. Emphasis on current research, intervention, and treatments in the field. Also includes community resources information. | Prerequisites: Student must be 18 years or older. | ASD285MM may be repeated for a total of four (4) credit hours. | Occ | LEC 1.0 1.0 1.0 | S |
| ASD285NN | 2016 Fall | Eating Disorders Seminar | | An overview of issues associated with eating disorders. Emphasis on current research, intervention, prevention, and treatments in the field. Also includes community resources information. | Prerequisites: None. | ASD285NN may be repeated for a total of four (4) credit hours. | Occ | LEC 1.0 1.0 1.0 | S |
| ASD285OO | 2016 Fall | Eating Disorders: Special Considerations and Populations Seminar | | A review of issues associated with eating disorders within diverse populations. Emphasis on multicultural populations, current research, intervention, prevention, and treatments in the field. Also includes community resources information. | Prerequisites: None. | ASD285OO may be repeated for a total of four (4) credit hours. | Occ | LEC 1.0 1.0 1.0 | S |
| ASD285PP | 2016 Fall | Eating Disorders: Conceptualization and Treatment Seminar | | A review of issues associated with eating disorders. Emphasis on current research, intervention, prevention, and treatments in the field. Also includes community resources information. | Prerequisites: None. | ASD285PP may be repeated for a total of four (4) credit hours. | Occ | LEC 1.0 1.0 1.0 | S |
| ASD285QQ | 2016 Fall | Behavioral Addictions Seminar | | A review of issues associated with behavioral addictions. Emphasis on current research, intervention, prevention, and treatments in the field. Also includes community resources information. | Prerequisites: None. | ASD285QQ may be repeated for a total of four (4) credit hours. | Occ | LEC 1.0 1.0 1.0 | S |
| ASD285RR | 2016 Fall | Behavioral Addictions Seminar: Internet-Related Addictions | | A review of issues associated with internet-based behavioral addictions. Emphasis on | Prerequisites: None. | ASD285RR may be repeated for a total of four (4) credit hours. | Occ | LEC 1.0 1.0 1.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | diagnostic descriptions and considerations for internet-based addictions including current research, intervention, prevention, and treatments in the field. Also includes community resources information. | | | | | |
| ASD285SS | 2017 Spring | Marijuana Addiction Seminar | | An overview of issues associated with marijuana addiction. Emphasis on current research, intervention, prevention, and treatments in the field. Also includes community resources information. | Prerequisites: None. | ASD285SS may be repeated for a total of four (4) credit hours. | Occ | LEC 1.0 1.0 1.0 | S |
| ASD285TT | 2017 Spring | Opioid Addiction Seminar | | An overview of issues associated with opioid addiction. Emphasis on current research, intervention, prevention, and treatments in the field. Also includes community resources information. | Prerequisites: None. | ASD285TT may be repeated for a total of four (4) credit hours. | Occ | LEC 1.0 1.0 1.0 | S |
| ASD295 | 2016 Summer | Advanced Foundations: Addictions and Substance Use Disorders Counselor Licensing/Certification Exams | | Review for individuals preparing for addictions and substance use disorders counselor licensing and/or certification exams. Emphasis on ethics, treatment, pharmacology, family issues, and self-help groups. | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| ASD296WA | 2012 Spring | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. | Prerequisites: Completion of at least twelve (12) college credits, minimum 2.6 grade point average, and be able to obtain a position related to student's academic or career goals (student's present job may qualify); or permission of instructor. Corequisites: Must be concurrently enrolled in | Occ | | LAB 1.0 5.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | at least one class which is related to student's major or career interest or with permission of the instructor. | | | | |
| ASD296WB | 2012 Spring | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. | Prerequisites: Completion of at least twelve (12) college credits, minimum 2.6 grade point average, and be able to obtain a position related to student's academic or career goals (student's present job may qualify); or permission of instructor. Corequisites: Must be concurrently enrolled in at least one class which is related to student's major or career interest or with permission of the instructor. | | Occ | LAB 2.0 10.0 0.0 | Z |
| ASD296WC | 2012 Spring | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. | Prerequisites: Completion of at least twelve (12) college credits, minimum 2.6 grade point average, and be able to obtain a position related to student's academic or career goals (student's present job may qualify); or permission of instructor. Corequisites: Must be concurrently enrolled in at least one class which is related to student's major or career interest or with permission of the instructor. | | Occ | LAB 3.0 15.0 0.0 | Z |
| ASD296WD | 2012 Spring | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to | Prerequisites: Completion of at least twelve (12) college | | | LAB 4.0 20.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | accomplish an outcome related to the career objectives of the students. | credits, minimum 2.6 grade point average, and be able to obtain a position related to student's academic or career goals (student's present job may qualify); or permission of instructor. Corequisites: Must be concurrently enrolled in at least one class which is related to student's major or career interest or with permission of the instructor. | | | | |
| ASD298AA | 2012 Spring | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. | Prerequisites: Permission of Program Director or Instructor. | | Occ | LAB 1.0 1.0 0.0 | Z |
| ASD298AB | 2012 Spring | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. | Prerequisites: Permission of Program Director or Instructor. | | Occ | LAB 2.0 2.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| ASD298AC | 2012 Spring | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. | Prerequisites: Permission of Program Director or Instructor. | | Occ | LAB 3.0 3.0 0.0 | Z |
| ASE100 | 2023 Fall | Introduction to Automotive Service | | Introduction to the standards of the automotive industry. Includes an overview of the major automotive systems, safety practices, workplace habits, tools, and equipment. | Prerequisites: None. | | Occ | L+L 2.0 4.0 4.0 | T |
| ASE102 | 2019 Fall | Automotive Express Service | | Use of standard service publications; performance of commonly used service operations following published service procedures; emphasis on good attitude development and safety habits about automotive service. | Prerequisites: None. | | Occ | L+L 2.0 4.0 4.0 | T |
| ASE102AU | 2019 Fall | Automotive Express Service | | Use of standard service publications; performance of commonly used service operations following published service procedures; emphasis on good attitude development and safety habits about automotive service. | Prerequisites: None. | | Occ | LEC 2.0 1.0 1.0 LAB 0.0 3.0 3.0 | T |
| ASE110 | 2023 Fall | Engine Fundamentals | | Diagnosis, disassembly, repair and reassembly of automotive internal combustion engines. | Prerequisites: None. | | Occ | L+L 4.0 7.5 7.5 | T |
| ASE110AU | 2023 Fall | Engine Fundamentals | | Diagnosis, disassembly, repair and reassembly of automotive internal combustion engines. | Prerequisites: None. | | Occ | LEC 4.0 2.0 2.0 LAB 0.0 5.5 5.5 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| ASE111 | 2019 Fall | Engine Diagnosis and Inspection | | Diagnosis and inspection of automotive internal combustion engines. | Prerequisites: None. | | Occ | L+L 2.0 4.0 4.0 | T |
| ASE111AU | 2019 Fall | Engine Diagnosis and Inspection | | Diagnosis and inspection of automotive internal combustion engines. | Prerequisites: None. | | Occ | LEC 2.0 1.0 1.0 LAB 0.0 3.0 3.0 | T |
| ASE120 | 2023 Fall | Automatic Transmission and Transaxle | | Principles of automotive operation, servicing and repair procedures for automatic transmissions/transaxles; includes diagnostics and testing of mechanical, electrical, and hydraulic components. | Prerequisites: None. | | Occ | L+L 4.0 7.5 7.5 | T |
| ASE120AU | 2023 Fall | Automatic Transmission and Transaxle | | Principles of automotive operation, servicing and repair procedures for automatic transmissions/transaxles; includes diagnostics and testing of mechanical, electrical, and hydraulic components. | Prerequisites: None. | | Occ | LEC 4.0 2.0 2.0 LAB 0.0 5.5 5.5 | T |
| ASE130 | 2023 Fall | Manual Drive Trains and Axles | | Operation, diagnosis, service, and repair of the automotive powertrain. Includes manual transmissions/transaxles, clutches, drive axles, driveshafts, differentials, four-wheel drive, and all-wheel drive. | Prerequisites: None. | | Occ | L+L 4.0 7.5 7.5 | T |
| ASE130AU | 2023 Fall | Manual Drive Trains and Axles | | Operation, diagnosis, service, and repair of the automotive powertrain. Includes manual transmissions/transaxles, clutches, drive axles, driveshafts, differentials, four-wheel drive, and all-wheel drive. | Prerequisites: None. | | Occ | LEC 4.0 2.0 2.0 LAB 0.0 5.5 5.5 | T |
| ASE140 | 2023 Fall | Automotive Steering, Suspension and Alignment | | Principles of automotive suspension and steering systems. Diagnosis, service, and repair procedures emphasis on four-wheel alignment. | Prerequisites: None. | | Occ | L+L 4.0 7.5 7.5 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| ASE140AU | 2023 Fall | Automotive Steering, Suspension and Alignment | | Principles of automotive suspension and steering systems. Diagnosis, service, and repair procedures emphasis on four-wheel alignment. | Prerequisites: None. | | Occ | LEC 4.0 2.0 2.0 LAB 0.0 5.5 5.5 | T |
| ASE141 | 2019 Fall | Steering, Suspension and Pre-Alignment | | Principles and operation of automotive suspension and steering systems. | Prerequisites: None. | | Occ | L+L 2.0 4.0 4.0 | T |
| ASE141AU | 2019 Fall | Steering, Suspension and Pre-Alignment | | Principles and operation of automotive suspension and steering systems. | Prerequisites: None. | | Occ | LEC 2.0 1.0 1.0 LAB 0.0 3.0 3.0 | T |
| ASE150 | 2023 Fall | Automotive Brake Systems | | Operation, diagnosis, service, and repair of automotive brake systems. | Prerequisites: None. | | Occ | L+L 4.0 7.5 7.5 | T |
| ASE150AU | 2023 Fall | Automotive Brake Systems | | Operation, diagnosis, service, and repair of automotive brake systems. | Prerequisites: None. | | Occ | LEC 4.0 2.0 2.0 LAB 0.0 5.5 5.5 | T |
| ASE151 | 2019 Fall | Introduction to Brake Systems | | Fundamentals and operation of automotive braking systems. Includes training in service, testing, and repair of basic brake and brake-related components. | Prerequisites: None. | | Occ | L+L 2.0 4.0 4.0 | T |
| ASE151AU | 2019 Fall | Introduction to Brake Systems | | Fundamentals and operation of automotive braking systems. Includes training in service, testing, and repair of basic brake and brake-related components. | Prerequisites: None. | | Occ | LEC 2.0 1.0 1.0 LAB 0.0 3.0 3.0 | T |
| ASE160 | 2023 Fall | Introduction to Automotive Electrical | | Automotive electrical systems foundations. Emphasis on testing and diagnosis of automotive battery, starting, and charging systems. | Prerequisites: None. | | Occ | L+L 4.0 7.5 7.5 | T |
| ASE160AU | 2023 Fall | Introduction to Automotive Electrical | | Automotive electrical systems foundations. Emphasis on testing and diagnosis of automotive battery, starting, and charging systems. | Prerequisites: None. | | Occ | LEC 4.0 2.0 2.0 LAB 0.0 5.5 5.5 | T |
| ASE161 | 2019 Fall | Basic Automotive Electrical/Electronics | | The basic principles of automotive electricity and electrical systems. | Prerequisites: None. | | Occ | L+L 2.0 3.0 3.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| ASE161AU | 2019 Fall | Basic Automotive Electrical/Electronics | | The basic principles of automotive electricity and electrical systems. | Prerequisites: None. | | Occ | LEC 2.0 1.0 1.0 LAB 0.0 2.0 2.0 | T |
| ASE162 | 2019 Fall | Automotive Battery, Starting and Charging Systems | | The principles of operation, testing and diagnosis of automotive battery, starting and charging systems. | Prerequisites: A grade of C or better in ASE161, or permission of Instructor. | | Occ | L+L 2.0 3.0 3.0 | T |
| ASE162AU | 2019 Fall | Automotive Battery, Starting and Charging Systems | | The principles of operation, testing and diagnosis of automotive battery, starting and charging systems. | Prerequisites: A grade of C or better in ASE161, or permission of Instructor. | | Occ | LEC 2.0 1.0 1.0 LAB 0.0 2.0 2.0 | T |
| ASE170 | 2023 Fall | Automotive Heating, Ventilation and Air Conditioning Systems | | Theory and operation of automotive heating, ventilation and air conditioning systems. Includes diagnosis, service and repair of these systems. | Prerequisites: None. | | Occ | L+L 4.0 7.5 7.5 | T |
| ASE170AU | 2023 Fall | Automotive Heating, Ventilation and Air Conditioning Systems | | Theory and operation of automotive heating, ventilation and air conditioning systems. Diagnosis, service and repair of these systems. | Prerequisites: None. | | Occ | LEC 4.0 2.0 2.0 LAB 0.0 5.5 5.5 | T |
| ASE180 | 2023 Fall | Introduction to Engine Management | | Introduction to automotive engine management. Includes the construction and operating principles of automotive internal combustion engines. Focus on operation and diagnosis of fuel systems, ignition systems, lubrication, and cooling systems. | Prerequisites: None. | | Occ | L+L 4.0 7.5 7.5 | T |
| ASE180AU | 2023 Fall | Introduction to Engine Management | | Introduction to automotive engine management. Includes the construction and operating principles of automotive internal combustion engines. Focus on operation and diagnosis of fuel systems, ignition systems, lubrication, and cooling systems. | Prerequisites: None. | | Occ | LEC 4.0 2.0 2.0 LAB 0.0 5.5 5.5 | T |
| ASE181 | 2019 Fall | Introduction to Engine Performance | | An introductory course in automotive engine performance as it relates to the construction and operating principles of automotive internal combustion engines, | Prerequisites: None. | | Occ | L+L 2.0 4.0 4.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | fuel systems, ignition systems, and the related lubrication and cooling systems. | | | | | |
| ASE181AU | 2019 Fall | Introduction to Engine Performance | | An introductory course in automotive engine performance as it relates to the construction and operating principles of automotive internal combustion engines, fuel systems, ignition systems, and the related lubrication and cooling systems. | Prerequisites: None. | | Occ | LEC 2.0 1.0 1.0 LAB 0.0 3.0 3.0 | T |
| ASE182 | 2019 Fall | Fundamentals of Automotive Fuel/Air and Ignition Systems | | The theory and fundamentals of automotive fuel/air delivery and ignition systems. The proper diagnosis and repair of the fuel/air delivery and ignition systems. | Prerequisites: A grade of C or better in ASE181, or permission of Instructor. | | Occ | L+L 2.0 4.0 4.0 | T |
| ASE182AU | 2019 Fall | Fundamentals of Automotive Fuel/Air and Ignition Systems | | The theory and fundamentals of automotive fuel/air delivery and ignition systems. The proper diagnosis and repair of the fuel/air delivery and ignition systems. | Prerequisites: A grade of C or better in ASE181, or permission of Instructor. | | Occ | LEC 2.0 1.0 1.0 LAB 0.0 3.0 3.0 | T |
| ASE240 | 2023 Fall | Advanced Driver Assistance Systems | | Principles of Advanced Driver Assistance Systems (ADAS). Diagnosis, service, and repair procedures. | Prerequisites: A grade of C or better in ASE140, or ASE140AU, or permission of Instructor. | | Occ | L+L 2.0 4.0 4.0 | T |
| ASE241 | 2019 Fall | Advanced Steering, Suspension and Alignment | | Advanced automotive principles of suspension and steering systems. Diagnosis, service and repair procedures, with emphasis on four-wheel alignment. | Prerequisites: A grade of C or better in ASE141, or permission of Instructor. | | Occ | L+L 2.0 4.0 4.0 | T |
| ASE241AU | 2019 Fall | Advanced Steering, Suspension and Alignment | | Advanced automotive principles of suspension and steering systems. Diagnosis, service and repair procedures, with emphasis on four-wheel alignment. | Prerequisites: A grade of C or better in ASE141, or permission of Instructor. | | Occ | LEC 2.0 1.0 1.0 LAB 0.0 3.0 3.0 | T |
| ASE251 | 2019 Fall | Advanced Brake Systems | | The operation, diagnosis, service and repair of advanced automotive brake systems. | Prerequisites: A grade of C or better in ASE151, or permission of Instructor. | | Occ | L+L 2.0 4.0 4.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| ASE251AU | 2019 Fall | Advanced Brake Systems | | The operation, diagnosis, service and repair of advanced automotive brake systems. | Prerequisites: A grade of C or better in ASE151, or permission of Instructor. | | Occ | LEC 2.0 1.0 1.0 LAB 0.0 3.0 3.0 | T |
| ASE260 | 2023 Fall | Advanced Automotive Electrical | | Advanced principles of automotive electronics. | Prerequisites: A grade of C or better in ASE160, or ASE160AU, or permission of Instructor. | | Occ | L+L 4.0 7.5 7.5 | T |
| ASE260AU | 2023 Fall | Advanced Automotive Electrical | | Advanced principles of automotive electronics. | Prerequisites: A grade of C or better in ASE160, or ASE160AU, or permission of Instructor. | | Occ | LEC 4.0 2.0 2.0 LAB 0.0 5.5 5.5 | T |
| ASE261 | 2019 Fall | Automotive Electrical Diagnostics and Repair | | Principles of automotive electrical diagnostics and repair. | Prerequisites: A grade of C or better in ASE162, or permission of Instructor. | | Occ | L+L 2.0 4.0 4.0 | T |
| ASE261AU | 2019 Fall | Automotive Electrical Diagnostics and Repair | | Principles of automotive electrical diagnostics and repair. | Prerequisites: A grade of C or better in ASE162, or permission of Instructor. | | Occ | LEC 2.0 1.0 1.0 LAB 0.0 3.0 3.0 | T |
| ASE262 | 2019 Fall | Automotive Electronic Control Systems | | Principles and operation of automotive electronics and electronic control systems. | Prerequisites: A grade of C or better in ASE261, or permission of Instructor. | | Occ | L+L 2.0 4.0 4.0 | T |
| ASE262AU | 2019 Fall | Automotive Electronic Control Systems | | Principles and operation of automotive electronics and electronic control systems. | Prerequisites: A grade of C or better in ASE261, or permission of Instructor. | | Occ | LEC 2.0 1.0 1.0 LAB 0.0 3.0 3.0 | T |
| ASE263 | 2019 Fall | Hybrid Vehicle Overview | | Automotive hybrid vehicle design and operation. Safety practices as suggested by manufacturers for servicing hybrid vehicle. | Prerequisites: A grade of C or better in ASE101. | | | L+L 2.0 4.0 4.0 | T |
| ASE264 | 2019 Fall | Automotive Electrical/Electronic Systems III | | Designed for the advanced automotive student, this course covers the automotive computer, multiple computer systems, and automotive computer networks. | Prerequisites: A grade of C or better in ASE161 and ASE162, or permission of Instructor. | | Occ | L+L 3.0 5.0 5.0 | T |
| ASE265 | 2023 Fall | Introduction to Electric and Hybrid Vehicles | | Principles of electric drive vehicles, including electric drive, hybrid, and fuel cell electric vehicles. | Prerequisites: A grade of C or better in ASE260, or permission of Instructor. | Occ | Occ | L+L 2.0 4.0 4.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| ASE266 | 2019 Fall | Electric/Hybrid Vehicle High Voltage Batteries | | This course covers the safety, operation, testing, diagnosis, and repair of electrical and hybrid high voltage batteries. | Prerequisites: A grade of C or better in ASE161 and ASE162, or permission of Instructor. | | Occ | L+L 1.0 2.0 2.0 | T |
| ASE267 | 2019 Fall | Electric Vehicle Operation and Diagnosis | | Covers the operation and diagnosis of electric/hybrid vehicles. | Prerequisites: A grade of C or better in ASE161 and ASE162, or permission of Instructor. | | Occ | L+L 3.0 5.0 5.0 | T |
| ASE280 | 2023 Fall | Engine Management | | Diagnostic concepts of advanced engine management. Operation and diagnosis of engine management control systems, communication networks, and vehicle emissions. | Prerequisites: None. | | Occ | L+L 4.0 7.5 7.5 | T |
| ASE280AU | 2023 Fall | Engine Management | | Diagnostic concepts of advanced engine management. Operation and diagnosis of engine management control systems, communication networks, and vehicle emissions. | Prerequisites: None. | | Occ | LEC 4.0 2.0 2.0 LAB 0.0 5.5 5.5 | T |
| ASE281 | 2019 Fall | Computerized Automotive Engine Control Systems | | The theory of computerized engine control systems as they relate to engine performance and emissions control. | Prerequisites: A grade of C or better in ASE261 and ASE182, or permission of Instructor. | | Occ | L+L 2.0 4.0 4.0 | T |
| ASE281AU | 2019 Fall | Computerized Automotive Engine Control Systems | | The theory of computerized engine control systems as they relate to engine performance and emissions control. | Prerequisites: A grade of C or better in ASE182, or permission of Instructor. | | Occ | LEC 2.0 1.0 1.0 LAB 0.0 3.0 3.0 | T |
| ASE282 | 2019 Fall | Advanced Engine Performance Diagnosis | | Diagnosis and repair of emission and engine control systems. Emphasizes the proper diagnosis, documentation, and repair of systems faults. | Prerequisites: A grade of C or better in ASE261 and ASE281, or permission of Instructor. | | Occ | L+L 2.0 4.0 4.0 | T |
| ASE282AU | 2019 Fall | Advanced Engine Performance Diagnosis | | Diagnosis and repair of emission and engine control systems. Emphasizes the proper diagnosis, documentation, and repair of systems faults. | Prerequisites: A grade of C or better in ASE261 and ASE281, or permission of Instructor. | | Occ | LEC 2.0 1.0 1.0 LAB 0.0 3.0 3.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| ASE290AA | 2020 Fall | Automotive Service Internship | | Automotive work experience in the automotive service industry. | Prerequisites: Permission of Department or Division. | 80 hours of designated work per credit. Maximum of four (4) credits can be earned by taking any combination of ASE290AA, and/or ASE290AB, and/or ASE290AC; this combination may include repeats of the same suffixed course(s). | Occ | L+L 1.0 1.0 0.0 | C |
| ASE290AB | 2020 Fall | Automotive Service Internship | | Automotive work experience in the automotive service industry. | Prerequisites: Permission of Department or Division. | 80 hours of designated work per credit. Maximum of four (4) credits can be earned by taking any combination of ASE290AA, and/or ASE290AB, and/or ASE290AC; this combination may include repeats of the same suffixed course(s). | Occ | L+L 2.0 2.0 0.0 | C |
| ASE290AC | 2020 Fall | Automotive Service Internship | | Automotive work experience in the automotive service industry. | Prerequisites: Permission of Department or Division. | 80 hours of designated work per credit. | Occ | L+L 3.0 3.0 0.0 | C |
| ASE296WA | 2019 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. | Prerequisites: Completion of at least twelve (12) college credits, minimum 2.6 grade point average and be able to obtain a position related to student's academic or career goals (student's present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor. | | Occ | LAB 1.0 5.0 0.0 | Z |
| ASE296WB | 2019 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. | Prerequisites: Completion of at least twelve (12) college credits, minimum 2.6 grade point average and be able to obtain a position related to student's academic or career goals (student's | | | LAB 2.0 10.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor. | | | | |
| ASE296WC | 2019 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. | Prerequisites: Completion of at least twelve (12) college credits, minimum 2.6 grade point average and be able to obtain a position related to student's academic or career goals (student's present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor. | | Occ | LAB 3.0 15.0 0.0 | Z |
| ASE296WD | 2019 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. | Prerequisites: Completion of at least twelve (12) college credits, minimum 2.6 grade point average and be able to obtain a position related to student's academic or career goals (student's present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor. | | Occ | LAB 4.0 20.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| ASE298AA | 2019 Fall | Special Projects | | An organized and tailored activity around the interests and needs of the individual student. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. | Prerequisites: Permission of Program Director or Instructor. | | Occ | LAB 1.0 1.0 0.0 | Z |
| ASE298AB | 2019 Fall | Special Projects | | An organized and tailored activity around the interests and needs of the individual student. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. | Prerequisites: Permission of Program Director or Instructor. | | Occ | LAB 2.0 2.0 0.0 | Z |
| ASE298AC | 2019 Fall | Special Projects | | An organized and tailored activity around the interests and needs of the individual student. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. | Prerequisites: Permission of Program Director or Instructor. | | Occ | LAB 3.0 3.0 0.0 | Z |
| ASL090AA | 2020 Fall | Speedy American Sign Language I | | Introduction of techniques for communicating with deaf people using American Sign Language (A.S.L.). Expressive and receptive sign skills, manual alphabet, numbers, and basic sign vocabulary. | Prerequisites: None. ASL103 suggested but not required. | ASL090AA may be repeated for a total of five (5) credit hours. | Occ | LEC 1.0 1.0 1.0 | S |
| ASL090AB | 2020 Fall | Speedy American Sign Language II | | Use American Sign Language (ASL) to converse about feelings, family members, other people, clothing, events according to proper tense, and to count to one hundred. | Prerequisites: A grade of C or better in ASL090AA. Completion of prerequisites within the last three years is required. | ASL090AB may be repeated for a total of five (5) credit hours. | Occ | LEC 1.0 1.0 1.0 | S |
| ASL101 | 2020 Fall | American Sign Language I | | Introduction of principles, methods, and techniques for communicating with deaf people who sign. Development of expressive and receptive sign skills, manual alphabet, numbers, and sign vocabulary. Overview of syntax, grammar, | Prerequisites: None. ASL103 suggested as a corequisite but not required. | | | LEC 4.0 4.0 4.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | and culture related to American Sign Language (A.S.L.). | | | | | |
| ASL102 | 2020 Fall | American Sign Language II | | Continued development of knowledge and language skills for communicating with deaf people who sign. Includes numbers, fingerspelling, and culture. Emphasis on enhancement of receptive sign skills and continued development of expressive sign skills. Application of rudimentary, syntactical, and grammatical structure stressed with continued development of sign vocabulary. | Prerequisites: A grade of C or better in ASL101 or permission of Department or Division. Completion of prerequisites within the last three years is required. | Occ | | LEC 4.0 4.0 4.0 | S |
| ASL103 | 2020 Fall | Introduction to the Deaf Community | | History and development of American Sign Language (ASL) and English codes. Overview of education for Deaf and Hard of Hearing children. Legal rights and common adaptive devices used by Deaf and Hard of Hearing individuals. | Prerequisites: None. | | Occ | LEC 1.0 1.0 1.0 | S |
| ASL105 | 2020 Fall | Survey of the Interpreting Profession | | Survey of the field of sign language interpreting. Overview of cultural, historical and sociological framework for the principles, ethics, roles, responsibilities, and standard practices of the interpreting profession. | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| ASL110 | 2020 Fall | Fingerspelling | | Introduction to fingerspelling techniques. Focus on methods, theory, and applications on receptive and expressive skills including manual alphabet production and numbers. In addition, skill development in speed, dexterity, clarity, and lexicalized fingerspelling, numeric incorporation, | Prerequisites: A grade of C or better in ASL101 or permission of Department or Division. Completion of prerequisites within the last three years is required. | | | LEC 3.0 3.0 3.0 | S |



Occ

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | prefixes, suffixes, and polysyllabic words. | | | | | |
| ASL200 | 2020 Fall | Issues and Resources | | Implications of laws pertaining to educational choices and rights of deaf, deaf-blind, and hard of hearing individuals. Local, state, and national organizations, activities, and agencies affecting the deaf community. | Prerequisites: A grade of C or better in ASL102 or permission of Department or Division. Completion of prerequisites within the last three years is required. | | | LEC 3.0 3.0 3.0 | S |
| ASL201 | 2020 Fall | American Sign Language III | | Linguistics of American Sign Language (A.S.L.) including non-manual behaviors and signing English idioms with conceptual accuracy. Emphasis on practical application of A.S.L. skills, expanded vocabulary, and cross-cultural communication. | Prerequisites: A grade of C or better in ASL102 or permission of Department or Division. (ENG101 or ENG107) and (CRE101 or equivalent as indicated by assessment) suggested but not required. Completion of prerequisites within the last three years is required. | Occ | | LEC 4.0 4.0 4.0 | S |
| ASL202 | 2020 Fall | American Sign Language IV | | Advanced American Sign Language skills including continued vocabulary. Emphasis on conversational techniques in a cross-cultural framework. Continued work on conceptual accurate signing of English idioms and words with multiple meanings. | Prerequisites: A grade of C or better in ASL201 or permission of Department or Division. (ENG101 or ENG107), ASL200, and (CRE101 or equivalent as indicated by assessment) suggested but not required. Completion of prerequisites within the last three years is required. | Occ<br>Occ | | LEC 4.0 4.0 4.0 | S |
| ASL203 | 2020 Fall | American Sign Language V | | Advanced study of vocabulary, classifiers, use of space, and grammatical features of American Sign Language (ASL). Includes evaluation of changes that occur in ASL as a living language. Advanced use of | Prerequisites: A grade of C or better in ASL202. Completion of prerequisites within the last three years is required. | | | LEC 4.0 4.0 4.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | ASL in demonstrations, reports, and presentations | | | | | |
| ASL204 | 2020 Fall | Comparative Linguistics: ASL/English | | A variety of topics about linguistics of American Sign Language (ASL) and English including phonology, morphology, lexicon, syntax, discourse, and language acquisition. Aspects of using sign language and how visual languages differ and are similar to spoken language. | Prerequisites: A grade of C or better in ASL202. Corequisites: ASL203. Completion of prerequisites within the last three years is required. | | | LEC 3.0 3.0 3.0 | S |
| ASL212 | 2020 Fall | Deaf Culture | | Linguistic, social, educational, and political issues in deaf culture. Values and group identity issues as related to heritage and literature. Special emphasis on the cultural and philosophical attitudes shared with other minority groups. | Prerequisites: A grade of C or better in ASL202 or permission of Department or Division. Completion of prerequisites within the last three years is required. | Occ | | LEC 3.0 3.0 3.0 | S |
| ASL296WA | 2020 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. | Prerequisites: Completion of at least twelve (12) college credits, minimum 2.6 grade point average, and be able to obtain a position related to student's academic or career goals (student's present job may qualify), or permission of Instructor. Corequisites: Concurrent in at least one class related to student's major or career interest, or permission of Instructor. | Occ | Occ | LAB 1.0 5.0 0.0 | Z |
| ASL296WB | 2020 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. | Prerequisites: Completion of at least twelve (12) college credits, minimum 2.6 grade point average, and be able to obtain a position related to student's academic or | | Occ | LAB 2.0 10.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | career goals (student's present job may qualify), or permission of Instructor. Corequisites: Concurrent in at least one class related to student's major or career interest, or permission of Instructor. | | | | |
| ASL296WC | 2020 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. | Prerequisites: Completion of at least twelve (12) college credits, minimum 2.6 grade point average, and be able to obtain a position related to student's academic or career goals (student's present job may qualify), or permission of Instructor. Corequisites: Concurrent in at least one class related to student's major or career interest, or permission of Instructor. | | Occ | LAB 3.0 15.0 0.0 | Z |
| ASL296WD | 2020 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. | Prerequisites: Completion of at least twelve (12) college credits, minimum 2.6 grade point average, and be able to obtain a position related to student's academic or career goals (student's present job may qualify), or permission of Instructor. Corequisites: Concurrent in at least one class related to student's major or career interest, or permission of Instructor. | | Occ | LAB 4.0 20.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| ASL298AA | 2023 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. | Prerequisites: Permission of Program Director or Instructor. | | Occ | LAB 1.0 1.0 0.0 | Z |
| ASL298AB | 2023 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. | Prerequisites: Permission of Program Director or Instructor. | | Occ | LAB 2.0 2.0 0.0 | Z |
| ASL298AC | 2023 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. | Prerequisites: Permission of Program Director or Instructor. | | Occ | LAB 3.0 3.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| ASM104 | 2018 Fall | Bones, Stones, and Human Evolution | | Study of human evolution and variation; including fossil hominids and their tools, primate anatomy and behavior, human genetics, and the environment and human biology. | Prerequisites: None. | Course Attribute(s): General Education Designation: Social and Behavioral Sciences - [SB] General Education Designation: Natural Sciences (General) - [SG] | Acad | L+L 4.0 5.0 5.0 | T |
| ASM265 | 2018 Fall | Laboratory Methods in Archaeology | | Techniques of artifact. Basic archaeological research techniques; methods of report writing. | Prerequisites: None. | ASM265 may be repeated for a total of eight (8) credits hours Course Attribute(s): General Education Designation: Natural Sciences (General) - [SG] | Acad | L+L 4.0 4.0 4.0 | T |
| ASM275 | 2018 Fall | Forensic Anthropology | FOR275 | Survey of the role of forensic anthropologists, from the crime scene to the courtroom. Course focuses on how skeletal analysis can aid in medicolegal investigations, especially by identifying aspects of the life history of unknown individuals and by reconstructing events that took place at crime scenes. Covers both the legal aspects of forensic practice and the underlying biological basis for evidence obtained from skeletal remains. Examines applications of forensic anthropology in mass disasters, human rights investigations, and the deciphering of historic cases. Lab activities designed to illustrate techniques and principles central to the discipline. | Prerequisites: None. | Course Attribute(s): General Education Designation: Social and Behavioral Sciences - [SB] General Education Designation: Natural Sciences (General) - [SG] | Acad | L+L 4.0 5.0 5.0 | T |
| ASM282AA | 2013 Summer I | Service-Learning Experience in Anthropology | | Unpaid Service-Learning (SL) experience, completed with approved community partner. | Prerequisites: Permission of Instructor. | ASM282AA may be repeated for a total of six (6) credit hours. Standard grading available according to procedures outlined in catalog. | Acad | LAB 1.0 1.0 0.0 | L |
| ASM282AB | 2013 Summer I | Service-Learning Experience in Anthropology | | Unpaid Service-Learning (SL) experience, completed with approved community partner. | Prerequisites: Permission of Instructor. | ASM282AB may be repeated for a total of six (6) credit hours. Standard grading available | Acad | LAB 2.0 2.0 0.0 | L |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | according to procedures outlined in catalog. | | | |
| ASM282AC | 2013 Summer I | Service-Learning Experience in Anthropology | | Unpaid Service-Learning (SL) experience, completed with approved community partner. | Prerequisites: Permission of Instructor. | ASM282AC may be repeated for a total of six (6) credit hours. Standard grading available according to procedures outlined in catalog. | Acad | LAB 3.0 3.0 0.0 | L |
| ASM298AA | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | Prerequisites: Permission of Program Director or Instructor. | | Acad | LAB 1.0 1.0 0.0 | Z |
| ASM298AB | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | Prerequisites: Permission of Program Director or Instructor. | | Acad | LAB 2.0 2.0 0.0 | Z |
| ASM298AC | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and | Prerequisites: Permission of Program Director or Instructor. | | Acad | LAB 3.0 3.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | | | | | |
| AST101 | 2023 Fall | Survey of Astronomy | | Survey of astronomy for the nontechnical student. The history, content, and evolution of the solar system and the universe in general. Astronomical principles and instrumentation. The planets, moons, sun, comets, stars and star formation, galaxies, and cosmology. | Prerequisites: None. | Course Attribute(s): General Education Designation: Natural Sciences (General) - [SG] | Acad | LEC 4.0 3.0 3.0 LAB 0.0 3.0 3.0 | T |
| AST102 | 2023 Fall | Survey of Astronomy Laboratory | | Astronomical observations and exercises designed to familiarize students with the sky, telescopes, and methods used in astronomy. | Prerequisites: A grade of C or better in AST101 and permission of Instructor or Department or Division. | AST102 is a legacy course intended for those students who have previously completed the corresponding lecture course. Current MCCCD students should enroll in AST101 only. | Acad | LAB 1.0 3.0 3.0 | T |
| AST106 | 2019 Spring | Life in the Universe | GLG106 | Introduction to the search for life in the universe for the non-science major. Earth's location in space and time, nature of life, light and the spectrum, origin and history of the universe, origin of life on Earth and the possibility of life on other planets. | Prerequisites: A grade of C or better in MAT090 or MAT091 or MAT092 or completion of higher level mathematics course, or satisfactory score on placement exam. | Course Attribute(s): General Education Designation: Natural Sciences (Quantitative) - [SQ] | Acad | LEC 4.0 3.0 3.0 LAB 0.0 3.0 3.0 | T |
| AST107 | 2019 Spring | Life in the Universe Laboratory | GLG107 | Astronomy, Biology, and Planetary Science laboratory. | Prerequisites: A grade of C or better in AST/GLG106 and permission of Instructor or Department or Division. | AST/GLG107 is a course intended for those students who have previously completed the corresponding lecture course. Current MCCCD students should enroll in AST/GLG106 only. | Acad | LAB 1.0 3.0 3.0 | T |
| AST111 | 2019 Spring | Introduction to Solar System Astronomy | | Introduction to astronomy for the non-science major. The scientific method, properties of light, astronomical instruments, our Solar System | Prerequisites: A grade of C or better in MAT092 or higher, or satisfactory score on district placement exam. | Course Attribute(s): General Education Designation: Natural Sciences (Quantitative) - [SQ] | Acad | LEC 4.0 3.0 3.0 LAB 0.0 3.0 3.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | and solar systems around other stars. Includes hands-on astronomical observations and laboratory exercises. | | | | | |
| AST112 | 2019 Spring | Introduction to Stars, Galaxies, and Cosmology | | Introduction to astronomy for the non-science major. Structure and evolution of stars; supernovae, black holes, and quasars; nebulae; star clusters; galaxies; cosmology, including the birth and death of the universe. | Prerequisites: A grade of C or better in MAT092 or higher, or satisfactory score on district placement exam. | AST111 is not a prerequisite for AST112. Course Attribute(s): General Education Designation: Natural Sciences (Quantitative) - [SQ] | Acad | LEC 4.0 3.0 3.0 LAB 0.0 3.0 3.0 | T |
| AST113 | 2019 Spring | Introduction to Solar System Astronomy Laboratory | | Hands-on astronomical observations and exercises to supplement AST111. | Prerequisites: A grade of C or better in AST111 and permission of Instructor or Department or Division. | AST113 is a course intended for those students who have previously completed the corresponding lecture course. Current MCCCD students should enroll in AST111 only. | Acad | LAB 1.0 3.0 3.0 | T |
| AST114 | 2019 Spring | Introduction to Stars, Galaxies, and Cosmology Laboratory | | Hands-on astronomical observations and exercises to supplement AST112. | Prerequisites: A grade of C or better in AST112 and permission of Instructor or Department or Division. | AST114 is a course intended for those students who have previously completed the corresponding lecture course. Current MCCCD students should enroll in AST112 only. | Acad | LAB 1.0 3.0 3.0 | T |
| AST282AA | 2023 Fall | Service-Learning Experience in Astronomy | | Unpaid Service-Learning (SL) experience, completed with approved community partner. | Prerequisites: Permission of Instructor. | AST282AA may be repeated for a total of six (6) credit hours. Standard grading available according to procedures outlined in catalog. | Acad | LAB 1.0 1.0 0.0 | L |
| AST282AB | 2023 Fall | Service-Learning Experience in Astronomy | | Unpaid Service-Learning (SL) experience, completed with approved community partner. | Prerequisites: Permission of Instructor. | AST282AB may be repeated for a total of six (6) credit hours. Standard grading available according to procedures outlined in catalog. | Acad | LAB 2.0 2.0 0.0 | L |
| AST282AC | 2023 Fall | Service-Learning Experience in Astronomy | | Unpaid Service-Learning (SL) experience, completed with approved community partner. | Prerequisites: Permission of Instructor. | AST282AC may be repeated for a total of six (6) credit hours. Standard grading available according to procedures outlined in catalog. | Acad | LAB 3.0 3.0 0.0 | L |
| AST285 | 2018 Fall | Introduction to Astrodynamics | ECE285 PHY285 | Introduction to celestial mechanics and the dynamics of spacecraft navigation. Introduction to rocket propulsion and spacecraft design. Orbital and interplanetary celestial | Prerequisites: A grade of C or better in ENG101 and (PHY115 or PHY121). | | Acad | LEC 4.0 3.0 3.0 LAB 0.0 3.0 3.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | mechanics and maneuvers. Astrophysics and characteristics of the space environment. Lab is project-based, utilizing a real-time spacecraft simulation environment. | | | | | |
| AST294 | 2010 Fall | Special Topics in Astronomy | | Conceptual, experimental, and computational aspects of a special topic in astronomy. | Prerequisites: Permission of Department or Division. | AST294 may be repeated for credit. | Acad | LEC 3.0 3.0 3.0 | S |
| AST294AA | 2010 Fall | Special Topics in Astronomy | | Conceptual, experimental, and computational aspects of a special topic in astronomy. | Prerequisites: Permission of Department or Division. | AST294AA may be repeated for credit. | Acad | LEC 2.0 2.0 2.0 | S |
| AST294AB | 2010 Fall | Special Topics in Astronomy | | Conceptual, experimental, and computational aspects of a special topic in astronomy. | Prerequisites: Permission of Department or Division. | AST294AB may be repeated for credit. | Acad | LEC 1.0 1.0 1.0 | S |
| AST294AC | 2010 Fall | Special Topics in Astronomy | | Conceptual, experimental, and computational aspects of a special topic in astronomy. | Prerequisites: Permission of Department or Division. | AST294AC may be repeated for credit. | Acad | LEC 0.5 0.5 0.5 | S |
| AST298AA | 1996 Spring | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | Prerequisites: Permission of Program Director or Instructor. | | Acad | LAB 1.0 1.0 0.0 | Z |
| AST298AB | 1996 Spring | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of | Prerequisites: Permission of Program Director or Instructor. | | Acad | LAB 2.0 2.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | | | | | |
| AST298AC | 1996 Spring | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | Prerequisites: Permission of Program Director or Instructor. | Acad | | LAB 3.0 3.0 0.0 | Z |
| ATC298AA | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment are made available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | Prerequisites: Permission of Program Director or Instructor. | Occ | | LAB 1.0 1.0 0.0 | Z |
| ATC298AB | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment are | Prerequisites: Permission of Program Director or Instructor. | | | LAB 2.0 2.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | made available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | | | | | |
| ATC298AC | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment are made available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | Prerequisites: Permission of Program Director or Instructor. | | Occ | LAB 3.0 3.0 0.0 | Z |
| ATP100 | 2018 Fall | Introduction to Manufacturing and Programmable Logic Controllers | | Explores the origin and basic operation of programmable logic controllers (PLC) in manufacturing processes. Laboratory exercises include ladder logic programming, installation, adjustment, and testing of digital and analog sensors, signal conditioners, and basic troubleshooting concepts. | Prerequisites: None. | | Occ | L+L 3.0 6.0 6.0 | T |
| ATP101 | 2016 Fall | Introduction to Automated Systems and Robotics | | An introduction to automation, distribution systems, Automated Storage and Retrieval Systems (ASRS), and the role of the manufacturing technician. Includes general manufacturing techniques, industry standards, and statistical process control. | Prerequisites: None. | | Occ | LEC 2.0 2.0 2.0 | S |
| ATP105 | 2010 Spring | Engineering Documentation | | Analysis and interpretation of engineering documentation, | Prerequisites: None. | | Occ | LEC 2.0 2.0 2.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | common to manufacturing processes. | | | | | |
| ATP106 | 2018 Fall | Industrial Electrical Systems | | Safety for electrical power and control systems, DC & AC circuit analysis, DC power supplies, switches and proximity sensors, inductors and capacitors, electrical and engineering documentation & schematics, digital multimeter & oscilloscope operation, solid state relays, and industrial control transformers. | Prerequisites: None. | | Occ | L+L 3.0 6.0 6.0 | T |
| ATP111 | 2018 Fall | Mechanical Systems and Maintenance | | Examination of mechanical drive systems. Includes fundamentals of direct drives, belt and pulley drives, chain drives and gear drives. Explores calculating and measuring quantities such as power, speed, torque, speed and torque reduction/amplification, and backlash. Also includes hands-on experience assembling and aligning components, testing and troubleshooting systems. | Prerequisites: None. | | Occ | L+L 3.0 6.0 6.0 | T |
| ATP115 | 2018 Fall | Fluid Power | | Fundamental industrial fluid power concepts including hydraulic and pneumatic installation, maintenance, and adjustments for the control of automated manufacturing systems. | Prerequisites: None. | | Occ | L+L 3.0 6.0 6.0 | T |
| ATP130 | 2018 Fall | DC Circuit Analysis | | Direct current (DC) electric circuits. Ohm's law, Kirchoff's laws, series, parallel and series-parallel circuits, network theorems, fundamentals of magnetism in electric circuits. | Prerequisites: None. | | Occ | L+L 2.0 2.0 2.0 | T |
| ATP135 | 2018 Fall | AC Circuit Analysis | | Alternating Current (AC) circuits containing resistance and reactance. Detailed coverage of AC circuit | Prerequisites: A grade of C or better in ATP130 or ELE100 or approval of Instructor. | | Occ | L+L 2.0 3.0 3.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | parameters, including theorems, impedance matching, and resonance. | | | | | |
| ATP150 | 2018 Fall | Fluid Power 1 - Hydraulics, Pneumatics, and Vacuum Concepts | | Fundamental fluid power and vacuum for industry. Pneumatic, hydraulic, and vacuum system technologies with emphasis on assembly, integration, and measurement. | Prerequisites: None. | | Occ | L+L 2.0 3.0 3.0 | T |
| ATP160 | 2018 Fall | Programmable Logic Controllers 1 - Introduction to Ladder Logic | | Introductory lecture and laboratory course explores the origin and basic operation of Programmable Logic Controllers (PLC) with laboratory exercises including wiring of hardware, ladder logic programming and basic troubleshooting concepts. | A grade of C or better required in all Prerequisites. Prerequisites or Corequisites: ATP135 or ELC119 or permission of Program Director. | | | LEC 3.0 2.0 2.0 LAB 0.0 4.0 4.0 | T |
| ATP175 | 2018 Fall | Introduction to Motors and Motor Controls | | Introduction to direct current and alternating current (AC) motors, types of direct current (DC) and alternation motors. | Prerequisites: A grade of C or better in (ATP130 and ATP135) or ELE111. | | Occ | L+L 2.0 3.0 3.0 | T |
| ATP180 | 2018 Fall | Programmable Logic Controllers 2 - Human-Machine Interfaces and Function Block Programming | | Advanced lecture and laboratory course builds upon the foundations covered in introductory course, covering development and documentation of advanced ladder logic and function block programming, Programmable Logic Controller (PLC) control of variable frequency devices, and the installation and programming of Human Machine Interfaces (HMI). | Prerequisites: A grade of C or better in ATP160 or permission of Program Director. | Occ | Occ | LEC 4.0 2.0 2.0 LAB 0.0 5.0 5.0 | T |
| ATP190 | 2019 Spring | Industrial Robotics | | Introduction to industrial robotics covering topics such as safety, operation, control technology, and programming. | Prerequisites: A grade of C or better in GTC108 or higher level math course. | | Occ | LEC 3.0 4.0 3.7 | S |
| ATP201 | 2018 Fall | Programmable Logic Controller (PLC) Systems | | Advanced lecture and laboratory course builds upon the foundations covered in introductory course, including development and documentation of advanced ladder logic and function block | Prerequisites: A grade of C or better in (ATP100 and ATP106) or permission of Instructor. | | Occ | L+L 3.0 6.0 6.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | programming, Programmable Logic Controller (PLC) control of variable frequency devices, PLC Networks and the installation and programming of Human Machine Interfaces (HMI). | | | | | |
| ATP205 | 2018 Fall | Electric Motors and Controls | | Examination of electrical motor control, power, and protection systems. Includes fundamentals of single and three-phase power, power, control and protection circuits. Also includes variable frequency drive (VFD), silicon controlled rectifier (SCR) control, and programmable logic controller (PLC). | Prerequisites: A grade of C or better in (ATP100 and ATP106) or permission of Instructor. | | Occ | L+L 3.0 6.0 6.0 | T |
| ATP210 | 2018 Fall | Process Control | | Introduction to instrumentation and control systems for wet type (continuous product) and dry type (discrete product) production systems. Includes process control concepts, instrumentation tag information, piping and instrumentation diagrams, level and flow sensing devices, Proportional-Integral-Derivative (PID) controllers, Programmable Logic Controllers (PLC), and final control elements. | Prerequisites: A grade of C or better in (ATP100 and ATP106) or permission of Instructor. | | Occ | L+L 3.0 6.0 6.0 | T |
| ATP215 | 2018 Fall | Automation System Integration | | Capstone course regarding the implementation of the planning, construction, adjustment, and testing of an industrial control system needed for the development of a functional automated system. | Prerequisites: A grade of C or better in (ATP201 and ATP205 and ATP210) or permission of Instructor. | | Occ | L+L 3.0 6.0 6.0 | T |
| ATP296WA | 2017 Spring | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average | Course Attribute(s): COMMON COMPETENCY COURSE | Occ | LAB 1.0 5.0 0.0 | C |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | related to the career objectives of the students. | and be able to obtain a position related to student's academic or career goals (student's present job may qualify) or permission of Instructor. Corequisites: Must be concurrent in at least one class which is related to student`s major or career interest or with permission of the Instructor. | | | | |
| ATP296WB | 2017 Spring | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to student's academic or career goals (student's present job may qualify) or permission of Instructor. Corequisites: Must be concurrent in at least one class which is related to student`s major or career interest or with permission of the Instructor. | Course Attribute(s): COMMON COMPETENCY COURSE | Occ | LAB 2.0 10.0 0.0 | C |
| ATP296WC | 2017 Spring | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to student's academic or career goals (student's present job may qualify) or permission of Instructor. Corequisites: Must be concurrent in at least one class which is related to student`s | Course Attribute(s): COMMON COMPETENCY COURSE | Occ | LAB 3.0 15.0 0.0 | C |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | major or career interest or with permission of the Instructor. | | | | |
| ATP296WD | 2017 Spring | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to student's academic or career goals (student's present job may qualify) or permission of Instructor. Corequisites: Must be concurrent in at least one class which is related to student`s major or career interest or with permission of the Instructor. | Course Attribute(s): COMMON COMPETENCY COURSE | Occ | LAB 4.0 20.0 0.0 | C |
| AUT097 | 1995 Fall | General Automotive Maintenance | | A study of automotive systems operation and maintenance for the consumer. Purchasing service for cars and performing minor maintenance | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| AUT101 | 1994 Fall | Internal Combustion Engines Theory | | Study of construction and operating principles of internal combustion engines and related lubrication, cooling, fuel, and electrical systems | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| AUT101AA | 2018 Fall | Internal Combustion Engines Theory | | Study of construction and operating principles of internal combustion engines and related lubrication, cooling, fuel, and electrical systems | Prerequisites: None. | | Occ | L+L 3.0 4.0 4.0 | T |
| AUT103AA | 2018 Fall | Automotive Electrical Systems | | Basic principles and fundamentals of automotive electricity and electrical systems. Training in diagnosis, service and reconditioning procedures of automotive starting, charging, ignition, and electrical circuits and components | Prerequisites: None. | | Occ | L+L 6.0 10.0 10.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| AUT103AB | 2018 Fall | Automotive and Electrical/Electronic Systems I | | Designed for beginning automotive students. The principle of electricity; the mathematical computations involved with Ohm's Law; the use of meters; electrical schematics; the theory of electrical components as they relate to automobiles; the diagnosis, testing, service and repair of batteries, starting systems and charging systems, lighting systems and instrumentation | Prerequisites: None. | | Occ | L+L 4.0 7.0 7.0 | T |
| AUT103BD | 2009 Spring | Ignition Systems | | Diagnosis, service, and reconditioning procedures for automotive ignition systems | Prerequisites: Permission of Instructor. | | Occ | LEC 1.0 1.0 1.0 | S |
| AUT103DA | 2018 Fall | Basic Automotive Electrical Theory | | Covers introductory level automotive electrical theory. This includes shop safety and procedures, Circuits, Ohm's Law, use of meters, oscilloscopes, and other basic test equipment, as well as diagnosis of problems in and caused by electrical circuits. Repair of these problems also covered | Prerequisites: None. | | Occ | L+L 1.1 2.0 2.0 | T |
| AUT103DB | 2018 Fall | Automotive Batteries | | Study of automotive batteries. Diagnosis, testing, service, and repair of batteries and related circuits covered | Prerequisites: A grade of C or better in AUT103DA or permission of Instructor. | | Occ | L+L 0.6 1.0 1.0 | T |
| AUT103DC | 2018 Fall | Automotive Charging Systems | | The diagnosis, testing, service, and repair of charging systems and related components | Prerequisites: A grade of C or better in AUT103DA or permission of Instructor. | | Occ | L+L 0.9 1.5 1.5 | T |
| AUT103DD | 2018 Fall | Automotive Starting Systems | | Covers the starting motor systems used on modern automotive vehicles including light duty trucks. Diagnosis, testing, service, and repair of starting systems and related components covered. | Prerequisites: A grade of C or better in AUT103DA or permission of Instructor. | | Occ | L+L 0.6 1.12 1.12 | T |
| AUT103DE | 2018 Fall | Automotive Lighting, Indicator, and Warning Circuits | | Covers the operation of, diagnosis and repair of common automotive lighting, | Prerequisites: A grade of C or better in | | | L+L 0.8 1.37 1.37 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | instrumentation, and warning device circuits used on the automobile. | AUT103DA or permission of Instructor. | | | | |
| AUT104AA | 2018 Fall | Automotive Fuel Systems | | Theory and operation of fuel injection, engine control management, turbo charging and fuel systems, training in diagnosis, service and reconditioning procedures | Prerequisites: A grade of C or better in AUT103AA or AUT103AB or permission of Instructor. | | Occ | L+L 3.0 5.0 5.0 | T |
| AUT105AA | 2018 Fall | Engine Performance and Diagnosis | | The theory and fundamentals of automotive engine management troubleshooting and oscilloscope testing as it pertains to diagnosis and tune-up of the modern day automobile. Emphasis on interpretation of oscilloscope patterns and Scantool Data as they relate to engine performance. | Prerequisites: A grade of C or better in (AUT103AA and AUT104AA) or permission of Instructor. | | Occ | L+L 3.0 5.0 5.0 | T |
| AUT106AA | 2018 Fall | Engine Overhaul and Reconditioning | | Diagnostic and service skills essential to service and repair automotive internal combustion engines. Includes valve guide, seat reconditioning, cylinder block, piston, rod and crankshaft service | Prerequisites: None. | | Occ | L+L 4.0 8.0 8.0 | T |
| AUT106AC | 2018 Fall | Engine Overhaul and Reconditioning: Heads and Valves | | Diagnostic and service skills essential to service and repair of the cylinder head and valve train of contemporary automotive engines. Includes valve, guide, and seat reconditioning and service. Does not include block and crankshaft service | Prerequisites: A grade of C or better in AUT103AA or permission of Instructor. | | Occ | L+L 3.0 5.0 5.0 | T |
| AUT106AD | 2018 Fall | Engine Overhaul and Reconditioning Block and Crankshaft | | Diagnostic and service skills related to cylinder block, piston, rod and crankshaft service. Includes honing, boring and crankshaft reconditioning as well as piston and ring service. Does not include cylinder head and valve work. | Prerequisites: None. | | Occ | L+L 3.0 5.0 5.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| AUT107AA | 2018 Fall | Automotive Air Conditioning | | The theory and principles of refrigeration and air conditioning. Training in diagnosis, servicing, and reconditioning procedures of automotive air conditioning systems | Prerequisites: None. | | Occ | L+L 3.0 5.0 5.0 | T |
| AUT107AC | 2018 Fall | Automotive Air Conditioning | | The theory and principles of refrigeration and air conditioning. Training in diagnosis, servicing, and reconditioning procedures of automotive air conditioning systems | Prerequisites: None. | | Occ | L+L 3.0 6.0 6.0 | T |
| AUT107AD | 2018 Fall | Automotive Air Conditioning | | The theory and principles of refrigeration and air conditioning. Training in diagnosis, servicing, and reconditioning procedures of automotive air conditioning systems including electronic system controls. | Prerequisites: A grade of C or better in AUT103AA. | | | L+L 4.0 7.0 7.0 | T |
| AUT108AB | 2018 Fall | Front-End Suspension, Steering, and Alignment | | The fundamentals and principles of suspension and steering systems. Diagnosis, service, and reconditioning procedures. Laboratory emphasis on front-end service and alignment | Prerequisites: None. | Occ | Occ | L+L 4.0 7.0 7.0 | T |
| AUT109AA | 2018 Fall | Automotive Brake Systems | | The fundamentals and principles of hydraulics and automotive braking systems. Diagnosis, service, and reconditioning procedures of automotive braking systems | Prerequisites: None. | | Occ | L+L 3.0 5.0 5.0 | T |
| AUT109AC | 2018 Fall | Automotive Brake Systems | | Designed for beginning automotive students. Fundamentals of drum, disc, and ABS brakes. Includes training in diagnosis, testing, service, and repair | Prerequisites: None. | | Occ | L+L 4.0 7.0 7.0 | T |
| AUT110AC | 2018 Fall | Automotive Power Trains | | Designed for beginning automotive students. Operation, diagnosis, service, and repair of the automotive power train. Includes clutches, | Prerequisites: None. | | Occ | L+L 4.0 7.0 7.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | torque converters, standard and automatic transmissions and transaxles, front and rear drive axles, drive shafts, differentials and transfer case | | | | | |
| AUT123 | 2018 Fall | Automatic Transmissions | | Theory of operation and servicing procedures for current automatic transmissions. | Prerequisites: A grade of C or better in (AUT103AA and AUT104AA) or permission of Instructor. | | Occ | LEC 6.0 4.0 4.0 LAB 0.0 6.0 6.0 | T |
| AUT123AA | 2018 Fall | Automatic Transmissions | | Theory of operation and servicing procedures for current domestic automatic transmissions; includes diagnostics and testing of mechanical, electrical, and hydraulic components | Prerequisites: None. | | Occ | L+L 4.0 8.0 8.0 | T |
| AUT130 | 2018 Fall | Automotive Quick Service | | Use of standard service publications; performance of commonly used service operations following published service procedures; emphasis on good attitude development and safety habits about automotive service. | Prerequisites: None. | | Occ | L+L 4.0 7.0 7.0 | T |
| AUT203 | 2018 Fall | Electrical Accessories | | Theory and principles of wiring diagrams, accessories circuits, turn signals, and warning systems. Circuit trouble-shooting and service of gauges, indicators, power windows and seats, deck latches, and windshield wipers. Computerized electronic devices. | Prerequisites: A grade of C or better in AUT103AA or permission of Instructor. | | Occ | L+L 3.0 5.0 5.0 | T |
| AUT210 | 1996 Spring | Automotive Emission Systems | | Automotive emissions control systems and methods of emissions measurement. Diagnostic practices as suggested by the manufacturers and the related service of emissions control devices | Prerequisites: A grade of C or better in (AUT103AA and AUT104AA) or permission of Instructor. | | Occ | LEC 3.0 3.0 3.0 | S |
| AUT210AA | 2018 Fall | Automotive Emission Systems | | Automotive emissions control systems and methods of emissions measurement. | Prerequisites: A grade of C or better in (AUT103AA and | | | L+L 3.0 5.0 5.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Diagnostic practices as suggested by the manufacturers and the related service of emissions control devices | AUT104AA) or permission of Instructor. | | | | |
| AUT215AA | 2018 Fall | Automotive and Electrical/Electronic Systems II | | Electrical accessory circuits including horns, wipers, defoggers, automatic door locks, power mirrors, power windows and power seats. Focuses on introduction to body computers, advanced lighting circuits and instrumentation, and chassis electronic control systems. Includes training in diagnosis, testing, service, and repair. | Prerequisites: A grade of C or better in AUT103AA or AUT103AB or permission of Instructor. | | Occ | L+L 4.0 7.0 7.0 | T |
| AUT233 | 2018 Fall | Computerized Engine Control Systems | | Presents the reasons for developing and using computerized engine control systems. Explores system operation, examining each component. Emphasizes diagnosis and repair of system faults | Prerequisites: A grade of C or better in AUT103AB and AUT104AA or permission of Instructor. | | Occ | L+L 3.0 5.0 5.0 | T |
| AUT240 | 2018 Fall | Hybrid Vehicle Overview | | Automotive hybrid vehicle design and operation. Safety practices as suggested by manufacturers for servicing hybrid vehicles. | Prerequisites: A grade of C or better in AUT130. | | | L+L 2.0 3.0 3.0 | T |
| AUT282AA | 2014 Summer | Service-Learning Experience in Automotive | | Unpaid Service-Learning (SL) experience, completed with approved community partner. | Prerequisites: Permission of Instructor. | AUT282AA may be repeated for a total of six (6) credit hours. Standard grading available according to procedures outlined in catalog. | Occ | LAB 1.0 1.0 0.0 | L |
| AUT282AB | 2014 Summer | Service-Learning Experience in Automotive | | Unpaid Service-Learning (SL) experience, completed with approved community partner. | Prerequisites: Permission of Instructor. | AUT282AB may be repeated for a total of six (6) credit hours. Standard grading available according to procedures outlined in catalog. | Occ | LAB 2.0 2.0 0.0 | L |
| AUT282AC | 2014 Summer | Service-Learning Experience in Automotive | | Unpaid Service-Learning (SL) experience, completed with approved community partner. | Prerequisites: Permission of Instructor. | AUT282AC may be repeated for a total of six (6) credit hours. Standard grading available according to procedures outlined in catalog. | Occ | LAB 3.0 3.0 0.0 | L |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| AVC100 | 2023 Fall | Introduction to Digital Arts | | Foundation course in digital arts and design, with emphasis in the production of art using the computer. | Prerequisites: None. | | Occ | L+L 1.0 2.0 2.0 | T |
| AVC103 | 2023 Fall | Typography in the Digital Age | | Survey of the history of typography and individual designers. Emphasis on the function of typography as an integral part of effective visual communication. Study of type anatomy, mechanics, characteristics, structure, and the principles of effective selection and the relation of copy and image in graphic design. Evaluate fonts both visually and technically and learn how to manage them. | Prerequisites: A grade of C or better in AVC100 or permission of Instructor. | | Occ | L+L 3.0 6.0 6.0 | T |
| AVC104 | 2023 Fall | Cross-Media Marketing for Designers | | Role of graphic designer in business with an emphasis on using graphic design to achieve marketing and sales objectives. Variety of communication channels explored, such as print and digital and including social media, web, and mobile media. | Prerequisites: None. | | Occ | L+L 3.0 6.0 6.0 | T |
| AVC110 | 2023 Fall | Survey of Graphic Design and Visual Communication | | A survey of graphic design and visual communication with an emphasis on application, history, and design processes. Tracing connections between contemporary and historical design. Apply knowledge to assemble and produce projects. | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| AVC114 | 2023 Fall | Digital Color | | Overview of how color is perceived and utilized in a digital environment and how to ensure consistent color from capture to final output in print or online. Investigate visual solutions utilizing electronic devices for color correction, manipulation and integrity. | Prerequisites: None. | | Occ | L+L 3.0 6.0 6.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| AVC119 | 2023 Fall | Penciling for Sequential Art | | Development of observational skills as they apply to sequential art. Emphasis on techniques that showcase how characters interact with their environment and manipulate props and cartooning anatomy. Includes techniques on composing page layouts, adapting scripts and reference gathering. | Prerequisites: None. ART111, or ART116, or previous drawing experience strongly recommended. | | | L+L 3.0 6.0 6.0 | T |
| AVC120 | 2023 Fall | Inking for Sequential Art | | Development of inking materials and techniques used in sequential art. Emphasis on the types of tools used in the industry and the various means of employing them. Understanding the duties of the inker and the process of computer finishing. | Prerequisites: None. | Occ | Occ | L+L 3.0 6.0 6.0 | T |
| AVC135 | 2023 Fall | Foundations of Photojournalism | | Basic technical knowledge of photographic process as applied by mass media. | Prerequisites: A grade of C or better in ART131 or permission of Instructor. | | Occ | L+L 3.0 6.0 6.0 | T |
| AVC138 | 2023 Fall | Commercial Photography I | | Basic techniques of lighting, camera work, and reproduction of commercial photography. Cooperation with commercial art community. | Prerequisites: A grade of C or better in (ART131 or AVC142) or permission of Instructor. | | Occ | L+L 3.0 6.0 6.0 | T |
| AVC139 | 2023 Fall | Commercial Photography II | | Advanced techniques with portfolio organization and presentation. | Prerequisites: A grade of C or better in AVC138. | | Occ | L+L 3.0 6.0 6.0 | T |
| AVC140 | 2023 Fall | Portrait Photography | | Fundamentals of portrait photography. Basic techniques of lighting, posing, design, and digital workflows applicable to the industry. Theory and practices of a portrait photography business. | Prerequisites: A grade of C or better in ART131, or AVC142, or permission of Instructor. | Digital camera with manual settings required. | Occ | L+L 3.0 6.0 6.0 | T |
| AVC142 | 2023 Fall | Introduction to Digital Photography | | Fundamentals of digital photography. Includes camera operations, exposure techniques, introduction to digital output, and theory of digital photography. | Prerequisites: None. | Digital camera required. | Occ | L+L 3.0 6.0 6.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| AVC143 | 2023 Fall | Intermediate Digital Photography | | Intermediate theory and techniques of digital photography. Aesthetic awareness and personal expression from image capture through intermediate techniques in the digital darkroom. Introduction to high-resolution digital output. | Prerequisites: A grade of C or better in AVC142 or permission of Instructor. | Semi-adjustable, high-resolution digital camera is required. | Occ | L+L 3.0 6.0 6.0 | T |
| AVC164 | 2023 Fall | Introduction to Drawing and Digital Paint | | Essential skills, concepts and use of digital media for drawing and painting. From concept to line-drawing; use of value, texture, color, lighting, space and scale elements to execute a finished rendering. | Prerequisites: A grade of C or better in AVC100 or permission of Instructor. | | Occ | L+L 3.0 6.0 6.0 | T |
| AVC164AC | 2023 Fall | Introduction to Drawing and Digital Paint III | | Essential skills, concepts and use of digital media for drawing and painting to execute a finished rendering and output formats. | Prerequisites: Permission of Instructor. | | Occ | L+L 1.0 2.0 2.0 | T |
| AVC169 | 2023 Fall | 2D Media Design | | Generation of two-dimensional (2D) images, designs, and media using digital and traditional methods of visual problem solving. Understanding digital and design-based techniques and workflows. | A grade of C or better required in all Prerequisites. Prerequisites or Corequisites: AVC100 or permission of Instructor. | | Occ | L+L 3.0 6.0 6.0 | T |
| AVC170 | 2023 Fall | 3D Computer Design | | Artistic manipulation of computer images. Emphasis on color and three-dimensional (3D) design in production of these images. Existing software used to generate three-dimensional art. | Prerequisites: A grade of C or better in AVC100 or AVC169 or permission of Instructor. | | Occ | L+L 3.0 6.0 6.0 | T |
| AVC173 | 2023 Fall | Computer Art | | Introduction to the multiple elements of paint software programs using the microcomputer. Basic foundation in the use of computer techniques including color paint programs for the production of computer | Prerequisites: A grade of C or better in AVC100 or permission of Instructor. | Prerequisites: A grade of C or better in ART100 or permission of Instructor. | Occ | L+L 3.0 6.0 6.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | images. Use of electronic input and output devices. | | | | | |
| AVC174 | 2023 Fall | Electronic Color Principles | | Interactive use of color for graphic communication. Color theory, color relationships and electronic color manipulation for computer graphic art, animation and multimedia. | A grade of C or better required in all prerequisites. Prerequisites or Corequisites: AVC100. | | Occ | L+L 1.0 2.0 2.0 | T |
| AVC175 | 2023 Fall | Electronic Publishing Design I | | Introduction to the multiple elements of commercial publishing using the microcomputer. Basic foundation in the use of electronic page layout techniques. Emphasis on publication design layout and concepts. | A grade of C or better required in all Prerequisites. Prerequisites or Corequisites: AVC100 or permission of Instructor. | | Occ | L+L 3.0 6.0 6.0 | T |
| AVC177 | 2023 Fall | Digital Photographic Imaging I | | Introduction to multiple elements of digital imaging. Basic foundation in photographic manipulation of images, with special attention to aesthetic foundations underlying photographic composition. | A grade of C or better required in all Prerequisites. Prerequisites or Corequisites: AVC100 or permission of Instructor. | | Occ | L+L 3.0 6.0 6.0 | T |
| AVC178 | 2023 Fall | Digital Arts Studies | | Designed for broad overview of the digital arts. Experience in digital based media, creative problem solving, design and aesthetics. | Prerequisites: A grade of C or better in AVC100 or permission of Instructor. | | Occ | L+L 3.0 6.0 6.0 | T |
| AVC179 | 2023 Fall | Electronic Presentation Design | | Introduction to the multiple elements of commercial-graphic presentation materials using the microcomputer and other advanced technologies. Basic foundation in the use of computer presentation software programs using presentation techniques. Special attention to aesthetic foundations underlying all presentation materials. | A grade of C or better required in all Prerequisites. Prerequisites or Corequisites: AVC100 or permission of Instructor. | | Occ | L+L 3.0 6.0 6.0 | T |
| AVC180AC | 2023 Fall | Designer's Tools: Quark Express | | Introduction to the multiple elements of Quark Express, a visual art adaptation software package using the Macintosh | Prerequisites: A grade of C or better in AVC100 or permission of Instructor. | | Occ | L+L 1.0 2.0 2.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | microcomputer. Basic foundation course in the use of electronic techniques, including appropriate input and output production devices. | | | | | |
| AVC180AD | 2023 Fall | Designer's Tools: Adobe Illustrator | | Introduction to the multiple elements of Adobe Illustrator, a visual art adaptation software package using the Macintosh microcomputer. Basic foundation course in the use of electronic techniques, including appropriate input and output production devices. | Prerequisites: A grade of C or better in AVC100 or permission of Instructor. | | Occ | L+L 1.0 2.0 2.0 | T |
| AVC180AE | 2023 Fall | Designer's Tools: Adobe Photoshop | | Introduction to the multiple elements of Photoshop software package using the microcomputer. Basic foundation in the use of electronic techniques including appropriate input and output production devices. | Prerequisites: A grade of C or better in AVC100 or permission of Instructor. | | Occ | L+L 1.0 2.0 2.0 | T |
| AVC180AI | 2023 Fall | Designer's Tools:3-D Studio Textures | | Introduction to multiple elements of 3-D studio material using DOS microcomputers. Basic foundation in the use of electronic input and output production devices. | Prerequisites: A grade of C or better in AVC/MMT184 or AVC284 or permission of Instructor. | | Occ | L+L 1.0 2.0 2.0 | T |
| AVC180AJ | 2023 Fall | Designer's Tools:3-D Special Effects | | Introduction to multiple elements of 3-D studio special effects software using DOS microcomputer. Basic foundation in the use of electronic input and output production devices. | Prerequisites: A grade of C or better in AVC/MMT184 or AVC284 or permission of Instructor. | | Occ | L+L 1.0 2.0 2.0 | T |
| AVC180AK | 2023 Fall | Designer's Tools: Adobe Premiere | | Basic functions and use of Adobe Premiere video editing software. Applications for computer animation, multimedia, and digital video production. | Prerequisites: A grade of C or better in AVC100. AVC/MMT184 is strongly recommended but not required. | | | L+L 1.0 2.0 2.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| AVC180AL | 2023 Fall | Designer Tools: Character Studio | | Character Studio 3D-Character Animation software. Character motion, editing and blending electronic with traditional techniques. | Prerequisites: A grade of C or better in AVC100 and AVC/MMT184. ART116 is recommended but not required. | | | L+L 2.0 5.0 5.0 | T |
| AVC180AM | 2023 Fall | Designer's Tools: Dreamweaver | | Introduction to Dreamweaver software and Web editing process. Developing sites, automating production, Web design integration using graphics, and graphics output. Learn powerful Web editing methods. | Prerequisites: A grade of C or better in AVC100 or permission of Instructor. | Occ | Occ | L+L 1.0 2.0 2.0 | T |
| AVC180AN | 2023 Fall | Designer's Tools: Flash | | Introduction to Flash software. Basic foundation in Flash vector graphics, 2D and 3D animation and creation of full motion video with sound. | Prerequisites: A grade of C or better in (AVC180AD and AVC180AE) or permission of Instructor. | | Occ | L+L 1.0 2.0 2.0 | T |
| AVC180AP | 2023 Fall | Designer's Tools: Photoshop for Multimedia | | Advanced Adobe Photoshop techniques for multimedia. Foundations in imaging for animation, Web, graphics, digital video and offset graphics. | Prerequisites: A grade of C or better in AVC180AE or permission of Instructor. | | Occ | L+L 1.0 2.0 2.0 | T |
| AVC180AR | 2023 Fall | Designer's Tools: Final Cut Pro | | Introduction to non-linear editing using Final Cut Pro software for graphics, animation and the Web applications. | Prerequisites: A grade of C or better in AVC100 or permission of Instructor. | | Occ | L+L 1.0 2.0 2.0 | T |
| AVC180AS | 2023 Fall | Designer's Tools: Adobe InDesign | | Basic functions and operations of Adobe InDesign software. Application for graphic design, publishing, digital pre- press production and web layout. | Prerequisites: A grade of C or better in AVC100 or permission of Instructor. | | Occ | L+L 1.0 2.0 2.0 | T |
| AVC180AT | 2023 Fall | Designer's Tools: Adobe After Effects | | Introduction to Adobe After Effects software. Digital effects and motion graphics for the WEB, CD-ROM, DVD, video, film and animation. | Prerequisites: A grade of C or better in AVC100 or permission of Instructor. | | Occ | L+L 1.0 2.0 2.0 | T |
| AVC181 | 2023 Fall | Graphic Design I | | Basic understanding of design principles and the stages of graphic design, with an emphasis on final product and presentation. | Prerequisites: A grade of C or better in AVC100 or permission of Instructor. | | Occ | L+L 3.0 6.0 6.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| AVC182 | 2023 Fall | Graphic Design II | | Utilizing graphic design essentials of typography, contrast and layout to develop design solutions to problems in consumer advertising, typography and structure. | Prerequisites: A grade of C or better in AVC181 or permission of Instructor. | | Occ | L+L 3.0 6.0 6.0 | T |
| AVC183 | 2023 Fall | Digital Graphic Arts I | | Graphic design use in microcomputer; black and white graphics, standard and color brushes, lines, shapes, area fills and fonts. Application to illustration, advertising graphics, typography, and video interaction. | A grade of C or better required in all Prerequisites. Prerequisites or Corequisites: AVC100 or permission of Instructor. | | Occ | L+L 3.0 6.0 6.0 | T |
| AVC184 | 2023 Fall | Digital Animation I | MMT184 | The art of animation (animated sequences, special effects, titles, etc.) using the computer. Construction characters, background graphics, color, scaling, storyboard, cells, timing, editing, and surface rendering. Screening and discussion of selected animated short films and videos. | Prerequisites: A grade of C or better in (ART111 or ART116) or permission of Instructor. Corequisites: AVC100 or permission of Instructor. | | Occ | L+L 3.0 6.0 6.0 | T |
| AVC185 | 2023 Fall | 3D Modeling and Animation I | MMT185 | Basic concepts of 3D modeling. Anatomy of computer geometry; basic elements that make computer models-curves, surfaces, non-uniform rational basis spline (NURBS), and polygons. 3D translation, shading, materials, and rendering. | A grade of C or better required in all Prerequisites. Prerequisites or Corequisites: AVC100 or permission of Instructor. | | Occ | L+L 3.0 6.0 6.0 | T |
| AVC187 | 2023 Fall | Perspective Drawing for Animation | | Perspective techniques for creating depth illusion as applied to principles of 3D modeling and animation. Study of size relationships, size and space variation, converging lines, vanishing points, overlapping planes. 3D lighting systems and light changes over distance. | Prerequisites: None. | | Occ | L+L 3.0 6.0 6.0 | T |
| AVC190 | 2023 Fall | Art of Web Site Design | MMT190 | Introduction to design production for websites. | Prerequisites: A grade of C or better in | | | L+L 3.0 6.0 6.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Layout, typography and presentation style for HTML (Hyper Text Markup Language). Design of mock-ups using digital design software to produce artistic form and content for the Web using Hyper Text Markup Language (HTML), digital text, and graphics. Discussion of color, proportion, typography and Web-specific design principles. Emphasizes design of cross-browser compatible interfaces that optimize usability, accessibility and browser interoperability. | AVC100, or permission of Instructor. CIS133DA recommended. | | | | |
| AVC190AA | 2023 Fall | Art of Website Design I | | Introduction to design production for websites. Layout, typography and presentation style for HTML (Hyper Text Markup Language). Design of mock-ups using digital design software to produce artistic form and content for the Web using Hyper Text Markup Language, digital text, and graphics. | Prerequisites: A grade of C or better in AVC100, or permission of Instructor. CIS133DA recommended. | | | L+L 1.0 2.0 2.0 | T |
| AVC190AB | 2023 Fall | Art of Website Design II | | Producing Web site pages, using design and Hyper Text digital text and graphics. Discussion of color, proportion, typography and Web-specific design principles. | Prerequisites: A grade of C or better in AVC100 and AVC190AA, or permission of Instructor. CIS133DA recommended | Occ | | L+L 1.0 2.0 2.0 | T |
| AVC190AC | 2023 Fall | Art of Website Design III | | Producing Web sites using artistic form and content. Emphasizes design of cross-browser compatible interfaces that optimize usability, accessibility and browser interoperability. | Prerequisites: A grade of C or better in AVC100 and AVC190AB, or permission of Instructor. CIS133DA recommended. | Occ | | L+L 1.0 2.0 2.0 | T |
| AVC191 | 2023 Fall | Storyboarding and Layout | | Introduction to story boarding, including film storytelling and scene presentation. | Prerequisites: A grade of C or better in ART111 or AVC187. | | Acad | L+L 2.0 4.0 4.0 | T |



Occ

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| AVC192 | 2023 Fall | Advanced Web Presentation Design | | Advanced interactive application and training for Web designers and graphic artists using Quark, Illustrator, Photoshop, HTML Flash, Dreamweaver and Digital Video site optimization techniques. Development of design concepts for web pages that communicate and deliver Web content creatively | Prerequisites: A grade of C or better in AVC/MMT190 or permission of instructor. AVC180AM and AVC180AN suggested but not required. | | | L+L 3.0 6.0 6.0 | T |
| AVC200 | 2023 Fall | Animation and Interactivity | | Animation and object-oriented programming concepts and techniques using industry standard authoring tools applied by the creative industry to animation productions, and interactive media. Introduction to animation and object- oriented programming concepts and techniques using industry standard authorizing tools. Includes tools used by the creative industry for animation productions and interactive media | Prerequisites: A grade of C or better in AVC100 or permission of Instructor. | Occ | Occ | L+L 3.0 6.0 6.0 | T |
| AVC201 | 2023 Fall | Variable Data Printing | | Understanding variable data and all areas including: design, utilizing data, cleaning and creating a database, file setup, prepress and press setup. Software used: Excel, Adobe InDesign, Acrobat. | Prerequisites: A grade of C or better in AVC175, or permission of Instructor. | | Occ | L+L 3.0 6.0 6.0 | T |
| AVC202 | 2023 Fall | Media Productions I | | Introduction to digital media production tools, equipment, and broadcast applications. Pre-production including script writing, storyboards, budgeting and copyright; studio and mobile production including the use of cameras, lighting, audio recording, and new media tools; post-production including media editing, transitions, titles, | Prerequisites: A grade of C or better in AVC100 or permission of Instructor. | Prerequisites: A grade of C or better in ART100 or permission of Instructor. | Occ | L+L 3.0 6.0 6.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | overlays and basic motion graphics. | | | | | |
| AVC203 | 2023 Fall | Aesthetics of Web Design | | Develop portfolio-level web design projects. Emphasis on advanced elements and principles of design. Continued development of aesthetic awareness and personal expression. Evaluation of aesthetic principles throughout semester. | Prerequisites: A grade of C or better in AVC/MMT190 or permission of Instructor. | | Occ | L+L 3.0 6.0 6.0 | T |
| AVC204 | 2023 Fall | Creative Design for Advertising | | Focuses on the design and production of advertisement layouts and visual marketing campaigns for digital, mobile, and social channels which drive business objectives. Emphasis on terminology, analysis, and critique of advertising design, campaign methods, techniques, and the use of video across digital, mobile, and social channels. | Prerequisites: None. | | Occ | L+L 3.0 6.0 6.0 | T |
| AVC210 | 2023 Fall | Design Tools for Imagery, Production, and Publishing | | Industry standard development of image manipulation, digital production, digital negatives, typography, and desktop publishing. New techniques using integrated software with multiple platform applications. Emphasis on alternative processes including: technique, aesthetics and creative imagery. | Prerequisites: A grade of C or better in AVC100 and [AVC169 or (AVC180AD, AVC180AE, and ART180AS)] and AVC181, or permission of Instructor. | | Occ | L+L 3.0 6.0 6.0 | T |
| AVC215 | 2023 Fall | Advanced Electronic Publishing | | Advanced use of electronic page layout techniques including in-depth styles; typography; technical documents and digital publishing interactivity. | Prerequisites: A grade of C or better in AVC175. | | Occ | L+L 3.0 6.0 6.0 | T |
| AVC219 | 2023 Fall | Coloring, Toning and Lettering for Sequential Art | | Understanding of the digital rules and programs used in coloring, toning and lettering comics, and the problems | Prerequisites: A grade of C or better in (AVC100 and AVC119) or permission of | | | L+L 3.0 6.0 6.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | presented therein within the sequential narrative. Emphasis on rules and guidelines within the industry, and digital coloring and lettering. | Instructor. AVC120 recommended. | | | | |
| AVC220 | 2023 Fall | Publishing for the Comic Industry | | Understanding of the comics industry. Includes researching, marketing, packaging, and distributing comics. Emphasis on selling and submitting to comic publishers, how to develop comics for self-publishing, promotional materials, and understanding contracts and copyrights involved in the process of publishing comics. | Prerequisites: A grade of C or better in AVC100 or permission of Instructor. | | Occ | L+L 3.0 6.0 6.0 | T |
| AVC221 | 2023 Fall | Comics Creation | | Development of a complete sequential comic, using all comics skills from beginning to end. Process includes scripting, penciling, inking, coloring or toning, lettering, and printing for publication. | Prerequisites: A grade of C or better in (AVC100 and AVC219) or permission of Instructor. | | Occ | L+L 3.0 3.0 3.0 | T |
| AVC227 | 2023 Fall | Estimating for Digital Output | | Introduction to estimating for digital output including job costing, labor/time, material and equipment costs. Focus on layout and imposition for press. Learn outside purchasing and vendor relationship management. | Prerequisites: None. | | Occ | L+L 3.0 6.0 6.0 | T |
| AVC230 | 2023 Fall | Visual Brand Design | | Simulates an actual working environment which exposes students to the challenges and advantages of working in cross-functional teams. Topics include preparation for collaborative work environments, critical thinking and communication, messaging, and effectively employing marketing and design principles. Reviews logo creation and | Prerequisites: A grade of C or better in (AVC100 and MKT110) or permission of Instructor. | | Occ | L+L 3.0 6.0 6.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | implementation, preparing online and offline collateral, creating marketing messaging and campaigns, written and oral communication, and personal presentation skills. | | | | | |
| AVC232 | 2023 Fall | Studio Lighting | | This course covers the fundamentals of lighting techniques with studio strobes, speed lights, and continuous lighting systems. Teaches students to use different light modifiers according to situation, subject and personal vision. | Prerequisites: A grade of C or better in ART131, or AVC142, or permission of Instructor. | Camera with manual settings required of this course. AVC232 may be repeated for a total of six (6) credit hours. | Occ | L+L 3.0 6.0 6.0 | T |
| AVC236 | 2023 Fall | Photography Location Shooting | | Practical application of camera techniques, use of lighting, and on-location shooting for post-production printing. | Prerequisites: A grade of C or better in (ART131 or AVC142) or permission of Instructor. | Film and/or Digital Single Lens Reflex (DSLR) camera is required. AVC236 may be repeated for credit. | Occ | L+L 3.0 6.0 6.0 | T |
| AVC237 | 2023 Fall | Fashion Photography | | Practical application of photographic techniques within the fashion industry. Includes the photographing of models, garments, and accessories. | Prerequisites: A grade of C or better in (ART131 or AVC142) or permission of instructor. | Digital Single Lens Reflex (DSLR) camera is required. AVC237 may be repeated for credit. | Occ | L+L 3.0 6.0 6.0 | T |
| AVC240 | 2023 Fall | Cinematography and Directing for 2D/3D Animation | | Essential skills, concepts and the use of virtual cameras in 2D and 3D animation environments: planning, pre-production, storyboards and pre-visualization using real-world camera principles is combined with rendering, sound and post-production in a nonlinear environment. | Prerequisites: A grade of C or better in (AVC/MMT184, or AVC/MMT185, or FMP108) or permission of Instructor. | | Occ | L+L 3.0 6.0 6.0 | T |
| AVC246 | 2023 Fall | Digital Fabrication | THO246 | Introduction to concepts and application of computer visualization, modeling, and rapid prototyping for interdisciplinary arts. Students will design sculptures applying 3D computer modeling techniques, rapid prototyping, and other available digital | Prerequisites: None. | | Occ | L+L 3.0 6.0 6.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | output devices to produce solid models. | | | | | |
| AVC248 | 2023 Fall | Design Self Promotion | | Defining career goals, and developing a self-promotional marketing plan to enter the workplace, including a resume, business card, leave behind, social media presence, interactive portfolio and printed portfolio. Understand business ethics and etiquette, artist's rights, copyright laws and contractual agreements, and develop networking, interview and communication skills. | Prerequisites: None. | | Occ | L+L 3.0 6.0 6.0 | T |
| AVC249 | 2023 Fall | Visual Communication Project Management and Workflow | | Communication and coordination of digital projects from inception through completion. Emphasis on job workflow including professional communication, time management, detailed follow through and conflict resolution with stakeholders. | Prerequisites: A grade of C or better in AVC100 or permission of Instructor. | Working with Printing Industries of America and their iLearning Center, students will have the opportunity to become industry certified for the Customer Service Professional (CSP) Certification for a minimal additional cost. | Occ | L+L 3.0 6.0 6.0 | T |
| AVC269AC | 2023 Fall | Digital Studio | | Continued development of digital studio media with emphasis on advanced use of media techniques within a digital environment. | Prerequisites: A grade of C or better in (AVC169 or AVC170 or AVC173 or AVC179 or AVC192 or AVC274 or AVC284 or AVC289 or AVC291) or permission of Instructor. | AVC269AC students must have completed advanced courses in the subject field. | Occ | L+L 3.0 6.0 6.0 | T |
| AVC270 | 2023 Fall | Digital Photographic Imaging II | | Intermediate digital photographic imaging techniques. Refinement of aesthetic awareness and personal expression. | A grade of C or better required in all Prerequisites. Prerequisites or Corequisites: AVC177. | | Occ | L+L 3.0 6.0 6.0 | T |
| AVC273AC | 2023 Fall | Special Topics: Multimedia Arts | | Multimedia art studio course examining new and/or current topics in media and/or multimedia arts. | Prerequisites: Permission of Instructor. | AVC273AC is designed to offer special topics and/or specialized training for students in multimedia arts. Activities may also be appropriate for portfolio enhancement. | Occ | L+L 3.0 6.0 6.0 | T |
| AVC274 | 2023 Fall | Digital Photographic Imaging III | | Advanced digital photographic imaging techniques. | A grade of C or better required in all | | | L+L 3.0 6.0 6.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Advanced manipulation techniques of photographic images and time-based media. Continued development of aesthetic awareness and personal expression. | Prerequisites. Prerequisites or Corequisites: AVC270. | | | | |
| AVC279 | 2023 Fall | Media Productions II | | Intermediate digital media production techniques. Continued pre-production, production, and post-production skills. Exploration of types of productions including interviews, informational/how-to, marketing/product, and documentary/artistic media productions. Refinement of aesthetic awareness and personal expression. | Prerequisites: A grade of C or better in AVC202 or permission of Instructor. | | Occ | L+L 3.0 6.0 6.0 | T |
| AVC280AA | 2023 Fall | Digital Media Arts and Design Capstone | | Focus on design, art, and development skills for a problem taken from business or industry. Includes practice-based capstone project focusing on a specific issue or need in digital media arts and design. | Prerequisites: Permission of Program Director or Instructor. | AVC280AA requires 80 clock hours of designated work per credit hour. | Occ | L+L 1.0 2.0 2.0 | T |
| AVC280AB | 2023 Fall | Digital Media Arts and Design Capstone | | Focus on design, art, and development skills for a problem taken from business or industry. Includes practice-based capstone project focusing on a specific issue or need in digital media arts and design. | Prerequisites: Permission of Program Director or Instructor. | AVC280AB requires 80 clock hours of designated work per credit hour. | Occ | L+L 2.0 4.0 4.0 | T |
| AVC280AC | 2023 Fall | Digital Media Arts and Design Capstone | | Focus on design, art, and development skills for a problem taken from business or industry. Includes practice-based capstone project focusing on a specific issue or need in digital media arts and design. | Prerequisites: Permission of Program Director or Instructor. | AVC280AC requires 80 clock hours of designated work per credit hour. | Occ | L+L 3.0 6.0 6.0 | T |
| AVC281 | 2023 Fall | Graphic Design III | | Advanced course in the process of graphic design and | Prerequisites: A grade of C or better in | | | L+L 3.0 6.0 6.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | problem solving to meet customer specifications. Emphasis on steps needed to create and promote complex graphic design projects. | AVC182 or permission of Instructor. | | | | |
| AVC283 | 2023 Fall | Digital Graphic Arts II | | Advanced skill development of graphic design through use of microcomputer. Emphasis on computer design and techniques for producing all types of camera-ready advertising art for printed matter and package design. Includes illustration, typography, photo imaging, and color separation. | Prerequisites: A grade of C or better in AVC183 or permission of Instructor. | | Occ | L+L 3.0 6.0 6.0 | T |
| AVC284 | 2023 Fall | Digital Animation II | | Elements of electronic animation with interactive text graphics, photography, sound, film, and video construction. | Prerequisites: A grade of C or better in AVC/MMT184 or permission of Instructor. | | Occ | L+L 3.0 6.0 6.0 | T |
| AVC285 | 2023 Fall | 3D Modeling and Animation II | MMT285 | Advanced techniques for 3D modeling and computer animation. Creating and applying 2D background and 3D model textures, creating and applying special effects to models and animation, designing, modeling, and animating a digital 3D character from a character study. | Prerequisites: A grade of C or better in AVC/MMT185. | | | L+L 3.0 6.0 6.0 | T |
| AVC286 | 2023 Fall | Graphic Design IV | | Continuing advanced course in the process of graphic design and problem solving to meet customer specifications. Emphasis on creating complex graphic design projects. | Prerequisites: A grade of C or better in AVC281 or permission of Instructor. | Occ | Occ | L+L 3.0 6.0 6.0 | T |
| AVC287 | 2023 Fall | 3D Character Animation | | 3D-Character modeling and animation for multimedia, film, broadcast, video games and interactive entertainment. Character motion, editing, and blending electronic with traditional techniques. | Prerequisites: A grade of C or better in AVC/MMT184 or AVC180AC. Corequisites: ART116 or permission of Instructor. | | Occ | L+L 3.0 6.0 6.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| AVC288 | 2023 Fall | PDF Portable Document Format | | Focuses on complexity, versatility and creation of a PDF file. Emphasis on the importance of the settings regarding color management, compression, and output. Includes fillable forms and interactive files with audio and video capabilities, editing functions, preflight abilities and security. | Prerequisites: A grade of C or better in AVC175 or permission of Instructor. | Emphasis will be on understanding how and why PDF is the most common workflow for printers. | Occ | L+L 3.0 6.0 6.0 | T |
| AVC289 | 2023 Fall | Computer Illustration | | Introduction to the multiple elements of commercial illustration using the microcomputer. Basic foundation in the use of computer techniques including color paint and draw programs for the production of commercial illustrations for publications and printed matter. Use of and output devices. | A grade of C or better required in all Prerequisites. Prerequisites or Corequisites: AVC100 or permission of Instructor. | | Occ | L+L 3.0 6.0 6.0 | T |
| AVC291 | 2023 Fall | Digital Prepress | | Introduction to fundamental concepts of digital prepress necessary for the designer to create digital documents for accurate output and reproduction. | Prerequisites: A grade of C or better in AVC100 or permission of Instructor. | | Occ | L+L 3.0 6.0 6.0 | T |
| AVC292 | 2023 Fall | Digital Output Prepress | | Introduction to prepress for digital output. Foundation of job costing and the functions of a job ticket for proper file preparation including trapping, color management, file transfers, workflow, RIPping, imposition and file proofing. | Prerequisites: A grade of C or better in AVC291 or permission of Instructor. | | Occ | L+L 3.0 6.0 6.0 | T |
| AVC293 | 2023 Fall | Digital Output | | Emphasis on setup, operation, and maintenance of a digital press. Introduction to specialty and common substrates and inks. Instruction on quality control, troubleshooting techniques, and proper safety precautions for press, equipment, and consumables. | Prerequisites: Permission of Instructor. | | Occ | L+L 3.0 6.0 6.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| AVC295KA | 2023 Fall | Art Workshop/Seminar: Graphics/Animation | | Advanced level workshop/seminar in art disciplines. | Prerequisites: Minimum of three (3) credits introductory and three (3) credits intermediate level courses in specific field or permission of Department or Division Chair. | | | L+L 1.0 2.0 2.0 | T |
| AVC295XA | 2023 Fall | Art Workshop/Seminar: Digital Photography | | Advanced level workshop seminar in digital photography disciplines. | Prerequisites: A grade of C or better in AVC143 or permission of Instructor. | AVC295XA may be repeated for a total of four (4) credits. | Occ | L+L 1.0 2.0 2.0 | T |
| AVC295XB | 2023 Fall | Art Workshop/Seminar: Digital Photography | | Advanced level workshop seminar in digital photography disciplines. | Prerequisites: A grade of C or better in AVC143 or permission of Instructor. | AVC295XB may be repeated for a total of eight (8) credits. | Occ | L+L 2.0 4.0 4.0 | T |
| AVC295XC | 2023 Fall | Art Workshop/Seminar: Digital Photography | | Advanced level workshop seminar in digital photography disciplines. | Prerequisites: A grade of C or better in AVC143 or permission of Instructor. | AVC295XC may be repeated for a total of twelve (12) credits. | Occ | L+L 3.0 6.0 6.0 | T |
| AVC296WA | 2023 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to student's major or career interest or with permission of the instructor. | | Occ | LAB 1.0 5.0 0.0 | Z |
| AVC296WB | 2023 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to | | | LAB 2.0 10.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to student's major or career interest or with permission of the instructor. | | | | |
| AVC296WC | 2023 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to student's major or career interest or with permission of the instructor. | | Occ | LAB 3.0 15.0 0.0 | Z |
| AVC296WD | 2023 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to | Occ | | LAB 4.0 20.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | student's major or career interest or with permission of the instructor. | | | | |
| AVC297AA | 2023 Fall | Commercial Art Internship | | Digital design, development, and photographic imaging work experience in a business or industry. 80 hours of designated work. | Prerequisites: Permission of Department or Division. | AVC297AA may be repeated for a total of three (3) credit hours. | Occ | L+L 1.0 1.0 0.0 | C |
| AVC297AB | 2023 Fall | Commercial Art Internship | | Digital design, development, and photographic imaging work experience in a business or industry. 160 hours of designated work. | Prerequisites: Permission of Department or Division. | | | L+L 2.0 2.0 0.0 | C |
| AVC297AC | 2023 Fall | Commercial Art Internship | | Digital design, development, and photographic imaging work experience in a business or industry. 240 hours of designated work. | Prerequisites: Permission of Department or Division. | | | L+L 3.0 3.0 0.0 | C |
| AVC298AA | 2023 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. | Prerequisites: Permission of Program Director or Instructor. | Occ<br>Occ | Occ | LAB 1.0 1.0 0.0 | Z |
| AVC298AB | 2023 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and | Prerequisites: Permission of Program Director or Instructor. | | Occ | LAB 2.0 2.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | individualized learning to be combined to maximize student development. | | | | | |
| AVC298AC | 2023 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. | Prerequisites: Permission of Program Director or Instructor. | | Occ | LAB 3.0 3.0 0.0 | Z |
| AVT298AA | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | Prerequisites: Permission of Program Director or Instructor. | | Occ | LAB 1.0 1.0 0.0 | Z |
| AVT298AB | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and | Prerequisites: Permission of Program Director or Instructor. | | Occ | LAB 2.0 2.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | | | | | |
| AVT298AC | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | Prerequisites: Permission of Program Director or Instructor. | | Occ | LAB 3.0 3.0 0.0 | Z |
| BAW100 | 2023 Fall | Nail Technology I | | Introduction to basic nail services, general sciences, safety, and infection control practices in the nail care industry. | Prerequisites: None. | | Occ | L+L 4.0 8.0 8.0 | T |
| BAW102 | 2023 Fall | Aesthetics Essentials | | Introduction to the field of aesthetics including application of theory and skills to deliver an effective skin care facial treatment and client pre and post consultations. Focus on effective client communication, interpersonal skills, sanitation, Arizona laws, client care, and facial care. | Prerequisites: None. | | Occ | L+L 4.0 8.0 8.0 | T |
| BAW104 | 2021 Fall | Hair Essentials I | | Introduction to the basic theory and procedures in cosmetology hair essentials. | Prerequisites: None. | | Occ | L+L 4.0 8.0 8.0 | T |
| BAW105 | 2023 Fall | Nail Technology II | | Apply advanced techniques and continue to build on previous concepts learned in nail services, general sciences, safety, and infection control in the nail industry. | Prerequisites: A grade of C or better in BAW100 or permission of Program Director. | | Occ | L+L 4.0 8.0 8.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| BAW106 | 2021 Fall | Hair Essentials II | | Hair-shaping techniques and chemical application procedures in cosmetology hair essentials. | Prerequisites: None. | | Occ | L+L 4.0 8.0 8.0 | T |
| BAW110 | 2023 Fall | Advanced Aesthetics | | Theory and application of advanced skin care modalities, resurfacing, and cosmetic chemistry. Hair removal techniques, makeup application, and an introduction to body treatments is also included. Application of theory and skills through treatment services provided to the public. Focus on communication and documentation to create customized treatment plans and product recommendations for clients that follow all safety and infection control procedures in compliance with the Arizona Barbering & Cosmetology Board. | Prerequisites: None. | | Occ | L+L 4.0 8.0 8.0 | T |
| BAW111 | 2023 Fall | Nail Technology III | | Preparation for the written and practical examinations for Arizona Barbering and Cosmetology Board licensure. Includes concepts related to nail services, general sciences, and business skills in the nail care industry. | Prerequisites: A grade of C or better in BAW105 or permission of Program Director. | | Occ | L+L 4.0 8.0 8.0 | T |
| BAW112 | 2023 Fall | Hair Essentials | | Focus on the competencies of the Cosmetologist and the Hair Stylist certificate programs and the Arizona Barbering & Cosmetology Board as an introduction to the basic theory and procedures in cosmetology hair essentials. | Prerequisites: None. | | Occ | L+L 7.0 17.0 17.0 | T |
| BAW114 | 2020 Fall | Student Salon I | | Introduction to Cosmetology Student Salon operations and client services in the Cosmetology Clinic. Focus on application of skills learned in | Prerequisites: None. | | Occ | L+L 4.0 8.0 8.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | the classroom on live and mock clients. | | | | | |
| BAW115 | 2023 Fall | Aesthetics Mastery | | Focus on theories and performance of comprehensive professional aesthetics treatments for the public including communication and documentation to create customized treatment plans and product recommendations for clients that follow all safety and infection control procedures in compliance with the Arizona Barbering & Cosmetology Board. Overview of business planning and employment in the field including marketing, job search strategies, professional development, and self promotion. Arizona Barbering & Cosmetology Board examination licensure preparation. | Prerequisites: None. | | Occ | L+L 4.0 8.0 8.0 | T |
| BAW116 | 2023 Fall | Student Salon II | | Continuation of student salon with a focus on real life scenarios to serve a client and/or become a future business owner in the beauty industry. | Prerequisites: A grade of C or better in BAW114. | | Occ | L+L 4.0 8.0 8.0 | T |
| BAW118 | 2023 Fall | Hair Stylist State Licensure | | Preparation for the written and practical examinations for Arizona Barbering & Cosmetology Board licensure as related to hairstyling. Focus on Arizona State testing procedures for the written and practical examinations, as well as applicable Arizona State laws for a Hairstylist. Final salon business practices and services. | Prerequisites: None. | | Occ | L+L 4.0 8.0 8.0 | T |
| BAW119 | 2020 Fall | Nail Essentials | | Introduction to nail services in the beauty industry. Focus on knowledge and skills of | Prerequisites: None. | | Occ | L+L 4.0 8.0 8.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | providing nail services on actual clients in a salon setting. | | | | | |
| BAW120 | 2023 Fall | Massage Therapy Basics | | Introduction to massage therapy. Includes sanitation, hygiene, safety, contraindications, ethics, healthy therapeutic relationships, professional communication, overview of the human body (integumentary, muscular, and skeletal systems), healthcare terminology, muscle theory, client care, self-care, and Swedish massage. | Prerequisites: None. | | Occ | L+L 3.5 7.0 7.0 | T |
| BAW121 | 2023 Fall | Massage Therapy Advanced | | A massage basics course covering: sanitation, hygiene, safety, contraindications, ethics, healthy therapeutic relationships, professional communication, overview of the human body (integumentary, muscular, and skeletal systems), healthcare terminology, muscle theory, client care, self-care, and Swedish massage. | Prerequisites: None. | | Occ | L+L 3.5 7.0 7.0 | T |
| BAW212 | 2020 Fall | Skin Essentials | | Introduction to skin services in the beauty industry. Focus on knowledge and skills of providing skin services on actual clients in a salon setting. | Prerequisites: None. | | Occ | L+L 4.0 8.0 8.0 | T |
| BAW214 | 2023 Fall | Student Salon III | | Focus on application of cosmetology skills learned in the live salon setting to perform services with limited instructor assistance. Industry readiness and preparation to perform services in the chosen field of expertise after licensure with the Arizona Barbering & Cosmetology Board. | Prerequisites: A grade of C or better in BAW116. | | Occ | L+L 4.0 8.0 8.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| BAW218 | 2023 Fall | Cosmetology State Licensure | | Preparation for the written and practical examinations for the Arizona Barbering & Cosmetology Board licensure. Focus on Arizona state testing procedures for the written and practical examinations, as well as Arizona state laws for a cosmetologist. Final salon business practices and services. | Prerequisites: None. | | Occ | L+L 2.0 4.0 4.0 | T |
| BAW220 | 2023 Fall | Massage Therapy Mastery I | | Advanced anatomy and massage. Focuses in detail on the skeletal and muscular components and manipulations of the upper body. Includes review of bones and muscles of the upper body and the kinesiology that develops from their interactions. Practical application of advanced anatomy in deep-tissue massage for the upper body. Emphasis on the integration of deep tissue, Thai massage, myofascial, and structural massage. Introduction to Subjective, Objective, Assessment, and Plan (S.O.A.P.) notes. | Prerequisites: A grade of C or better in BAW121 or permission of Program Director. | | Occ | L+L 3.5 7.0 7.0 | T |
| BAW221 | 2023 Fall | Massage Therapy Mastery II | | Advanced anatomy and massage. Focus on the skeletal and muscular components and manipulations of the lower body. Review all of the bones and muscles of the lower body and the kinesiology that develops from their interactions. Practical application of advanced anatomy in deep-tissue massage for the lower body. Includes client assessment, treatment planning, and | Prerequisites: A grade of C or better in BAW220 or permission of Program Director. | | Occ | L+L 3.5 7.0 7.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | documentation for clients with common needs and clients with unique needs (such as athletes, expecting mothers, infants, older adults, obese individuals, people with disabilities, and end of life care). Also includes entrepreneurial skills conducive to the industry of massage therapy. | | | | | |
| BAW298AA | 2020 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. | Prerequisites: Permission of Program Director or Instructor. | Occ | | LAB 1.0 1.0 0.0 | Z |
| BAW298AB | 2020 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. | Prerequisites: Permission of Program Director or Instructor. | Occ | | LAB 2.0 2.0 0.0 | Z |
| BAW298AC | 2020 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and | Prerequisites: Permission of Program Director or Instructor. | | | LAB 3.0 3.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. | | | | | |
| BHS150 | 2018 Fall | Introduction to Behavioral Health and Social Services | | Survey of the behavioral health and social services professions, including scope of practice and training requirements. Exploration of employment opportunities in the field and self-assessment/academic planning for a career in mental health. Overview of mental health disorders and first responder skills in a mental health crisis situation. | Prerequisites: None. | Course Attribute(s): General Education Designation: Historical Awareness - [H] General Education Designation: Social-Behavioral Sciences - [SB] | Occ | LEC 3.0 3.0 3.0 | S |
| BHS155 | 2022 Fall | Professional Resiliency and Well-Being | | Exploration of building human resilience and well-being to prevent burnout, traumatic stress, and compassion fatigue for social services and mental health professionals, healthcare providers, emergency first responders, and other relationship-intense occupations. Causes, symptoms, and effects of traumatic stress, burnout compassion fatigue and other work-related stress. Focus on enhancing quality of life and improving a healthy lifestyle by incorporating evidenced-based practices in psychological and emotional resilience training, cognitive behavioral therapy, mindfulness, positive psychology, prevention, peer | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | support, and self-care, including nutrition, exercise, and sleep. | | | | | |
| BHS160 | 2023 Fall | Ethical, Legal, and Professional Issues in Counseling Services | | Explores relevant ethical, legal, and professional issues inherent in the behavioral health and social services field, including expectations of and limitations on providers. Key areas of inquiry include boundaries and dual relationships, mandated reporting, confidentiality, scope of practice, beneficence and non-maleficence, rights and responsibilities, professional relationships, and credentialing/regulating agencies. | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| BHS165 | 2020 Fall | Applied Therapeutic Communication Skills | | Theory and practice of communication skills to establish and maintain effective helping relationships and enhance the therapeutic alliance. Emphasis on verbal communication, nonverbal communication, paraverbal communication, rapport building, empathetic and active listening skills, resolving interpersonal conflicts, appropriate feedback, and developing and maintaining personal and professional relationships. | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| BHS170 | 2018 Fall | Case Management and Clinical Documentation | | Overview and application of the principles, practices, and function of case management in human services. Case management service delivery and coordination for clients with psychological, developmental, and psychiatric and comorbid medical conditions. Documentation techniques | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | necessary to maintain clinical records in a variety of behavioral healthcare settings. | | | | | |
| BHS175 | 2023 Fall | Trauma-Informed Care and Recovery Treatment | | Comprehensive overview of various types of trauma, neurobiological effects of traumatic stress, and ethics associated in working with a trauma survivor. Concepts and skills needed to become a fully functioning trauma-informed caregiver professional in the mental health and primary care setting. | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| BHS180 | 2019 Spring | Child, Family, and Adult Advocacy | | The role of advocacy in relation to multiple systems affecting children, families, and adults. Emphasis on identifying appropriate supports, community resources, and "wrap-around" services to help foster healthy family and child development, adult recovery, and social welfare. | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| BHS185 | 2020 Fall | Cultural Competence in Behavioral Health | | Exploration of cultural diversity and its potential impact on behaviors, emotions, cognitions and perceptions, relationships, and values. Intercultural communication skills through the examination of cultural and racial diversity, sexual and gender identity, social justice, and religious and spiritual diversity. Consideration of its implications for the therapeutic process and the importance of self-awareness and effective communication skills for professionals in the behavioral health and social sciences. | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| BHS190 | 2023 Fall | Supervised Practice in Behavioral Health and Human Services | | Supervised, entry-level work-based experience in mental | Prerequisites: A grade of C or better in | | | LAB 1.0 1.0 0.0 | C |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | health, social service, or a related behavioral health care provider setting. 80 hours of designated volunteer or paid work-based learning. | BHS150, or BHS155, or BHS160, or permission of Department or Division. | | | | |
| BHS205 | 2023 Fall | Introduction to Individual Counseling Theories | | Introduction to the major evidence-based therapeutic models and interventions in social and behavioral sciences. Defines the key concepts, techniques and procedures of each theoretical model. | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| BHS210 | 2023 Fall | Addictions, Substance Use Disorders, and Recovery | | Introduction to the historical and current developments in the field of addiction, as well as sociological, psychological, and physiological aspects of addictive behaviors and substance use. Introduces contemporary treatment methods within addiction practice, including self-help groups, levels of care, symptom identification, and models of prevention, and intervention. Examines factors that predict relapse and support recovery. | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| BHS215 | 2023 Fall | Introduction to Group Therapy | | Overview of the methods and techniques for influencing change in group settings. Examination of theories and concepts essential to provision of group counseling in behavioral health and addiction settings. | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| BHS216 | 2019 Spring | Group Process | | Evaluate and demonstrate the methods and techniques for influencing change in group settings. | Prerequisites: A grade of C or better in BHS151 or permission of Department or Division. | | | LEC 3.0 3.0 3.0 | S |
| BHS220 | 2020 Fall | Introduction to Integrated Behavioral Healthcare | | Introduction to key concepts related to the provision of integrated health care services, as well as role of | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | wellness and prevention in community health services. The course will introduce students to the theory and clinical practice of integrated behavioral health in primary care, as well as evidence-based approaches to promote wellness in individuals and communities. | | | | | |
| BHS230 | 2018 Fall | Crisis and Trauma Stabilization | | Theoretical and applied foundation designed for behavioral health service providers working with people in crisis. Examines the phenomena and dynamics of crises and emergencies, as well as the related strategies/modalities. | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| BHS235 | 2018 Fall | Emergency Mental Health Crisis Response and Recovery | | Comprehensive study of natural and human-caused disasters and their effects on the trauma survivor. Introduction to basic emergency mental health interventions to help stabilize those experiencing crisis following critical incident disasters. | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| BHS251 | 2020 Fall | Harm Reduction in Addiction, Substance Use, and Social Services | | Introduction to harm reduction principles, policies, programs, and practices that aim to reduce the adverse health, social and economic consequences of the use of legal and illegal drugs. This course will introduce behavioral health and social service providers as well as paraprofessional counselors to the theory and practice of harm reduction strategies in addiction, social service, and community settings. | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| BHS255 | 2020 Fall | Health and Wellness Coaching in Professional Resiliency | | Comprehensive overview of the art, science, and role of coaching and teaching resiliency for the following issues: personal and work-related stress, burnout, traumatic stress, and compassion fatigue. Develop pedagogical techniques and practical application of evidence-based interventions in biobehavioral self-regulation, mindfulness, cognitive restructuring, positive psychology, peer support, and holistic self-care. Designed to develop skills as a health and wellness coach in professional resiliency for enhancing health and quality of life. | Prerequisites: A grade of C or better in BHS155. | | Occ | LEC 3.0 3.0 3.0 | S |
| BHS262 | 2023 Fall | Behavioral Health Service Techniques for the Elderly | | Specific counseling skills and appropriate intervention strategies for working with the elderly. Focus on the particular psychological, sociological and physical problems of this age group. | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| BHS266 | 2020 Fall | Violence and Abuse Services | | Techniques, strategies, and treatment modalities necessary for the helping professional working with the victims and perpetrators of violence and abuse. | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| BHS267 | 2023 Fall | Introduction to Play Therapy | | Exploration and application of therapeutic play techniques and strategies for the helping professional working with children. | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| BHS269 | 2020 Fall | Grief Support Techniques | | Techniques, strategies, and treatment modalities necessary for the helping professional working with the bereaved and others affected by traumatic loss. | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| BHS271 | 2020 Fall | Developmental Disabilities Assistance Training | | Introduction to the field of developmental disability assistance. Also includes common causes of developmental disabilities, treatments and other behavioral conditions that may affect such individuals. | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| BHS272 | 2020 Fall | Child and Adolescent Mental Health and Interventions | | Strategies for training and reinforcing positive interaction with children. Covers behavior management strategies and techniques to prevent behavioral problems, replace behaviors and manage consequences. | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| BHS275 | 2018 Fall | Infant and Early Childhood Mental Health | | Foundational knowledge of mental health during infancy and early childhood. Exploration of social-emotional development and relational influences on mental health. Emphasis on identifying early warning signs, making appropriate referrals, and employing a multidisciplinary child and family team approach to services. | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| BHS281 | 2023 Fall | Introduction to Art Therapy | | Exploration of the process, dynamics and objectives of the therapeutic art experience. Emphasis on Art Therapy from both the psychological and artistic perspectives. Highlights topics in the history, theory and practice of Art Therapy. | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| BHS298AA | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type | Prerequisites: Permission of Program Director or Instructor. | | Occ | LAB 1.0 1.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | facilities and equipment are made available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | | | | | |
| BHS298AB | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment are made available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | Prerequisites: Permission of Program Director or Instructor. | Occ | | LAB 2.0 2.0 0.0 | Z |
| BHS298AC | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment are made available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | Prerequisites: Permission of Program Director or Instructor. | Occ | | LAB 3.0 3.0 0.0 | Z |
| BHS300 | 2023 Fall | Research Methods for Evidence-Based Practice | | Overview of the uses, limitations, and ethics of research methodology in the behavioral sciences, and the qualitative and quantitative methods associated with | Prerequisites: A grade of C or better in PSY230, or permission of Instructor. | | | L+L 4.0 4.0 4.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | common research designs. Prepares students to conduct evaluations of literature published research, use empirical evidence as the basis for interventions, and evaluate the effectiveness of their own interventions. Focuses on applications of descriptive and inferential statistics using statistical software. | | | | | |
| BHS310 | 2023 Fall | Fundamentals of Family Systems Counseling | | Study of the family as a system and the concepts and principles applicable to helping individuals from a systemic perspective. Examines family processes, including functional and dysfunctional patterns, difficulties that families may experience as they move through their developmental stages, and the family's interactions with individuals and communities. Introduction to family systems theory as it applies to the predominant models of family therapy. | Prerequisites: A grade of C or better in BHS205, or permission of Instructor or Department. | Acad | | LEC 3.0 3.0 3.0 | S |
| BHS320 | 2023 Fall | Behavioral Development Across the Lifespan | | Critical analysis of human development throughout the lifespan, including physical, cognitive, emotional, and social development. Prepares students in the behavioral sciences to conceptualize clients through a developmental perspective. Overview of both normal human development and developmental psychopathology. Focus on child, adolescent, and adult development through the study of major theories and | Prerequisites: A grade of C or better in BHS262 or BHS272 or BHS275, or permission of Instructor. | | Acad | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | models, with implications for helping professionals. | | | | | |
| BHS340 | 2023 Fall | Psychopathology Across Cultures | | Overview of the scientific study of mental illness and substance use disorders (psychopathology). Evaluates theories of psychopathology from sociological, psychological, and behavioral perspectives. Examines the most prevalent categories of mental disorders from several different theoretical and treatment perspectives. Focus on diagnostic features, etiology, epidemiology, prognosis, and treatment issues related to various psychiatric disorders. Legal, ethical, and cultural issues pertaining to psychopathology also discussed, in addition to prevention and intervention strategies. | Prerequisites: A grade of C or better in (BHS150 and BHS185), or permission of Instructor. | | Acad | LEC 3.0 3.0 3.0 | S |
| BHS385 | 2023 Fall | Multicultural Approaches to Behavioral Health Care | | Advanced application of multicultural competencies, focusing on necessary awareness, knowledge, and skills needed in behavioral health settings. Examination of the dimensions of personal identities and intersectionality in the conceptualization, planning, and implementation of interventions in human services fields. | Prerequisites: A grade of C or better in BHS185, or permission of Instructor. | | Acad | LEC 3.0 3.0 3.0 | S |
| BHS400 | 2023 Fall | Biological and Environmental Bases of Behavior | | Examination of human behavior from biophysiological, psychosocial-cognitive, and social-cultural perspectives using relevant theories. Focuses on the nervous system, brain function, and cognition, as well as the role | Prerequisites: A grade of C or better in BIO160, or permission of Instructor. | | Acad | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | of psychopharmacology in behavioral healthcare. | | | | | |
| BHS410 | 2023 Fall | Co-Occurring Substance Use and Mental Disorders | | Advanced instruction in co-occurring behavioral health and substance use disorders from the bio-psycho-social model for application in the behavioral health field. Includes philosophies and practices of empirically supported models. Emphasis on causes, consequences, assessment, treatment, recovery, and harm reduction. | Prerequisites: A grade of C or better in (BHS210 and BHS340), or permission of Instructor. | | Acad | LEC 3.0 3.0 3.0 | S |
| BHS420 | 2023 Fall | Relational Approach to Trauma | | Exploration of the science of trauma and recovery within the family context. Includes the dynamic elements of trauma treatment with the integration of systemic and family treatment models. Examines the lifelong impact of traumatic stress and complex trauma during the early years of life. Focus on evidence-based treatment and interventions from a family theory perspective for individual, relational, and systematic traumatization. | Prerequisites: A grade of C or better in BHS175, or permission of Instructor or Department. | Acad | | LEC 3.0 3.0 3.0 | S |
| BHS430 | 2023 Fall | Concepts and Principles of Applied Behavior Analysis | | An in-depth consideration of the scientific theories, concepts, and principles of understanding and modifying behavior. Focus on applying behavior analysis for data-based decisions to resolve challenging behaviors and foster prosocial behaviors. Students will learn basic principles and procedures, such as functional behavior assessment, assessment of reinforcers, and implementation of a behavior | Prerequisites: A Grade of C or better in (BHS205 and BHS320), or permission of Instructor or Department. | Acad | | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | intervention plan to reach socially meaningful outcomes. | | | | | |
| BHS490 | 2023 Fall | Advanced Supervised Practice in Behavioral Health and Human Services | | Advanced, supervised work experience in mental health, social service, or a related behavioral health care provider setting. 160 hours of designated volunteer or paid work-based learning. | Prerequisites: AAS in Behavioral Health Sciences or permission of Instructor. | | Acad | LAB 2.0 2.0 0.0 | C |
| BIO100 | 2018 Fall | Biology Concepts | | Introductory course covering basic principles and concepts of biology. Methods of scientific inquiry and behavior of matter and energy in biological systems are explored. | Prerequisites: None. | Course Attribute(s): General Education Designation: Natural Sciences (Quantitative) - [SQ] | Acad | LEC 4.0 3.0 3.0 LAB 0.0 3.0 3.0 | T |
| BIO101 | 2018 Fall | Introduction to Human Genetics for Non-Majors | | Study of inheritance in humans, at the organismal, cellular and molecular levels. Includes exploration of gene expression, isolation and manipulation of DNA, Mendelian genetics, pedigree analysis, as well as chromosomal abnormalities and genetic diseases. | Prerequisites: None. | Course Attribute(s): General Education Designation: Natural Sciences (Quantitative) - [SQ] | Acad | LEC 4.0 3.0 3.0 LAB 0.0 3.0 3.0 | T |
| BIO102 | 2018 Fall | Cells to Systems: An Introduction to Biology for Non-Majors | | Study of living things. Builds from basic molecular components to structure and physiology of cells and organ systems of animals and plants. | Prerequisites: None. | General Education Designation: Natural Sciences (Quantitative) - [SQ] | Acad | LEC 4.0 3.0 3.0 LAB 0.0 3.0 3.0 | T |
| BIO105 | 2018 Fall | Environmental Biology | | Fundamentals of ecology and their relevance to human impact on natural ecosystems. | Prerequisites: None. | Course Attribute(s): General Education Designation: Natural Sciences (Quantitative) - [SQ] | Acad | LEC 4.0 3.0 3.0 LAB 0.0 3.0 3.0 | T |
| BIO106 | 2001 Fall | Biotechnology and Society I | | Introduction to biotechnology and its impact on society. Covers applications, limitations, benefits, risks, and legal and moral issues associated with biotechnology | Prerequisites: None. | | Acad | LEC 3.0 3.0 3.0 | S |
| BIO107 | 2018 Fall | Introduction to Biotechnology | | Introduction to biotechnology and its global impact on society. Covers applications, laboratory techniques, | Prerequisites: None. | Course Attribute(s): General Education Designation: Natural Sciences (Quantitative) - [SQ] | Acad | LEC 4.0 3.0 3.0 LAB 0.0 3.0 3.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | limitations and the international economic benefits, risks, and legal and moral issues associated with biotechnology | | | | | |
| BIO108 | 2023 Fall | Plants and Society | | A global study of plants in relation to humans; as a source of food, fiber, drugs, and other products; for aesthetic value, survival, and energy. | Prerequisites: None. | Course Attribute(s): General Education Designation: Natural Sciences (Quantitative) - [SQ] | Acad | LEC 4.0 3.0 3.0 LAB 0.0 3.0 3.0 | T |
| BIO109 | 2024 Fall | Natural History of the Southwest | | Study of the common plants and animals of the Southwest including their distribution, adaptation, behavior, and ecology. Introduction to basic field and laboratory techniques used in the study of natural history. Specific field problems presented dealing with plant and animal analysis and ecological interrelationships. | Prerequisites: None. | | Acad | LEC 4.0 3.0 3.0 LAB 0.0 3.0 3.0 | T |
| BIO111 | 2024 Fall | Microbes and Society | | A study of microorganisms and the roles they play in everyday life. | Prerequisites: None. | | Acad | LEC 4.0 3.0 3.0 LAB 0.0 3.0 3.0 | T |
| BIO116 | 2023 Spring | Introduction to Animal Behavior | | Scientific study of animal behavior for non-majors. Includes experimental exploration of current hypotheses for genetic and environmental influences, communication, reproductive strategies, habitat selection, and sociality. | Prerequisites: None. | | Acad | LEC 4.0 3.0 3.0 LAB 0.0 3.0 3.0 | T |
| BIO145 | 2018 Fall | Marine Biology | | A survey of marine environments and their biotic communities with emphasis on the natural history of marine organisms | Prerequisites: None. | Course Attribute(s): General Education Designations: Natural Sciences (General) - [SG] | Acad | LEC 4.0 3.0 3.0 LAB 0.0 3.0 3.0 | T |
| BIO149AH | 2020 Spring | Field Biology: Marine Biology in Mexico | | Introduction to marine experiments, marine biology, and ecology. On-site field experience in Mexico. Emphasis on observation and | Prerequisites: Permission of Instructor. | BIO149AH may be repeated for a total of three (3) credit hours. | Acad | L+L 1.0 1.34 1.34 | G |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | study of marine organisms along the shore. | | | | | |
| BIO149AK | 1990 Fall | Field Biology: Ecological and Environmental Field Experience | | Field expeditions in which ecological and environmental principles and concepts are observed and studied. | Prerequisites: None. | BIO149AK may be repeated for a total of four (4) credit hours. | Acad | LAB 1.0 7.0 1.0 | H |
| BIO149AL | 2002 Fall | Field Biology: Ecological and Environmental Field Experience | | Field expeditions in which ecological and environmental principles and concepts are observed and studied. | Prerequisites: None. | BIO149AL may be repeated for a total of four (4) credit hours. | Acad | LAB 2.0 14.0 2.0 | F |
| BIO149AM | 1990 Fall | Field Biology: Ecological and Environmental Field Experience | | Field expeditions in which ecological and environmental principles and concepts are observed and studied | Prerequisites: None. | | Acad | LAB 3.0 21.0 1.0 | H |
| BIO149AN | 1990 Fall | Field Biology: Ecological and Environmental Field Experience | | Field expeditions in which ecological and environmental principles and concepts are observed and studied | Prerequisites: None. | | Acad | LAB 4.0 28.0 1.0 | H |
| BIO149SV | 2020 Spring | Field Biology: Ecological and Environmental Field Experience | | Field expeditions in which ecological and environmental principles and concepts are observed and studied. | Prerequisites: None. | BIO149SV may be repeated for a total of eight (8) credit hours. | Acad | L+L 1.0 1.34 1.34 | G |
| BIO156 | 2020 Fall | Introductory Biology for Allied Health | | An introductory biology course for allied health majors with an emphasis on humans. Topics include fundamental concepts of cell biology, histology, microbiology, and genetics. | Prerequisites: A grade of C or better in RDG100 or RDG100LL or higher or eligibility for CRE101 as indicated by appropriate reading placement test score. One year of high school or one-semester of college level chemistry is strongly recommended. | Course Attribute(s): General Education Designation: Natural Sciences (Quantitative) - [SQ] | Acad | LEC 4.0 3.0 3.0 LAB 0.0 3.0 3.0 | T |
| BIO156XT | 2020 Fall | Introductory Biology for Allied Health | | An introductory biology course for allied health majors with an emphasis on humans. Topics include fundamental concepts of cell biology, histology, microbiology, and genetics. | Prerequisites: A grade of C or better in RDG100 or RDG100LL or higher or eligibility for CRE101. One year of high school or one-semester of college level chemistry is strongly recommended. | | Acad | LEC 4.0 3.0 3.0 LAB 0.0 4.0 4.0 | T |
| BIO160 | 2020 Spring | Introduction to Human Anatomy and Physiology | | Principles of scientific method. Structural organization, homeostasis and control | Prerequisites: None. | Course Attribute(s): General Education Designation: Natural Sciences (Quantitative) - [SQ] | Acad | LEC 4.0 3.0 3.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | mechanisms of the body. Specific chemistry concepts. Structure and function of the major systems of the body. | | | | LAB 0.0 3.0 3.0 | |
| BIO181 | 2023 Fall | General Biology (Majors) I | | The study and principles of structure and function of organisms at the molecular and cellular levels. A detailed exploration of the chemistry of life, the cell, and genetics. | Prerequisites: A grade of C or better in RDG100, or RDG100LL, or higher, or eligibility for CRE101. One year of high school or one semester of college-level biology and chemistry is strongly recommended. | | Acad | LEC 4.0 3.0 3.0 LAB 0.0 3.0 3.0 | T |
| BIO181XT | 2023 Fall | General Biology (Majors) I | | The study and principles of structure and function of organisms at the molecular and cellular levels. A detailed exploration of the chemistry of life, the cell, and genetics. | Prerequisites: A grade of C or better in RDG100, or RDG100LL, or higher, or eligibility for CRE101. One year of high school or one semester of college-level biology and chemistry is strongly recommended. | | Acad | LEC 4.0 3.0 3.0 LAB 0.0 4.0 4.0 | T |
| BIO182 | 2023 Fall | General Biology (Majors) II | | The study and principles of structure and function of living things at cellular, organismic, and higher levels of organization. A detailed exploration of the mechanisms of evolution, biological diversity, biology of organisms, and ecology. | Prerequisites: A grade of C or better in BIO181, or BIO181XT, or permission of Department or Division Chair. | Course Attribute(s): General Education Designation: Natural Sciences (General) - [SG] Arizona Shared Unique Number SUN# BIO 1182 | Acad | LEC 4.0 3.0 3.0 0.0 3.0 3.0 | T |
| BIO182XT | 2023 Fall | General Biology (Majors) II | | The study and principles of structure and function of living things at cellular, organismic, and higher levels of organization. A detailed exploration of the mechanisms of evolution, biological diversity, biology of organisms, and ecology. | Prerequisites: A grade of C or better in BIO181, or BIO181XT, or permission of Department or Division Chair. | | | LEC 4.0 3.0 3.0 0.0 4.0 4.0 | T |
| BIO192 | 2018 Fall | Recitation in Biology | | Discussion, guided practice and problem solving related to a topically focused area of biology. | Prerequisites: None. Corequisites: Any 100-level BIO Biology | BIO192 may be repeated for credit. | Acad | L+L 1.0 1.0 1.0 | T |



Acad

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | course or permission of Instructor. | | | | |
| BIO194AA | 2018 Fall | Special Topics in Biology | | Conceptual and research basis of a current topic in biology. | Prerequisites: Permission of Instructor. | BIO194AA may be repeated for credit. | Acad | LEC 1.0 1.0 1.0 | S |
| BIO194AB | 2018 Fall | Special Topics in Biology | | Conceptual and research basis of a current topic in biology. Includes integrated laboratory and/or field applications of related methodologies. | Prerequisites: Permission of Instructor. | BIO194AB may be repeated for credit. | Acad | L+L 1.0 2.0 2.0 | T |
| BIO194AC | 2018 Fall | Special Topics in Biology | | Conceptual and research basis of a current topic in biology. Includes laboratory and/or field applications of related methodologies. | Prerequisites: Permission of Instructor. | BIO194AC may be repeated for credit. | Acad | LEC 2.0 1.0 1.0 LAB 0.0 3.0 3.0 | T |
| BIO195AA | 2018 Fall | Principles and Practice of Scientific Research | | Students will learn the use of the scientific method; how, why and where research is conducted; the ethical protocol in the scientific process; how peer review works, and how to formulate scientifically testable hypotheses and design supporting experiments. Students will apply the scientific method in laboratory and/or field research projects, will learn and use appropriate laboratory techniques, and will communicate research design, data collection, and data interpretation in conventional scientific formats. | Prerequisites: A grade of C or better in (BIO181 or CHM151 or PHY111) or permission of Instructor. | BIO195AA may be repeated for credit. | Acad | L+L 1.0 2.0 2.0 | T |
| BIO195AB | 2018 Fall | Principles and Practice of Scientific Research | | Students will learn the use of the scientific method; how, why and where research is conducted; the ethical protocol in the scientific process; how peer review works, and how to formulate scientifically testable hypotheses and design supporting experiments. Students will apply the scientific method in laboratory | Prerequisites: A grade of C or better in (BIO181 or CHM151 or PHY111) or permission of Instructor. | BIO195AB may be repeated for credit. | Acad | L+L 2.0 4.0 4.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | and/or field research projects, will learn and use appropriate laboratory techniques, and will communicate research design, data collection, and data interpretation in conventional scientific formats. | | | | | |
| BIO195AC | 2018 Fall | Principles and Practice of Scientific Research | | Students will learn the use of the scientific method; how, why and where research is conducted; the ethical protocol in the scientific process; how peer review works, and how to formulate scientifically testable hypotheses and design supporting experiments. Students will apply the scientific method in laboratory and/or field research projects, will learn and use appropriate laboratory techniques, and will communicate research design, data collection, and data interpretation in conventional scientific formats. | Prerequisites: A grade of C or better in (BIO181 or CHM151 or PHY111) or permission of Instructor. | BIO195AC may be repeated for credit. | Acad | L+L 3.0 6.0 6.0 | T |
| BIO201 | 2020 Fall | Human Anatomy and Physiology I | | Study of structure and function of the human body. Topics include cells, tissues, integumentary system, skeletal system, muscular system, and nervous system. | Prerequisites: (A grade of C or better in BIO156 or BIO156XT or BIO181 or BIO181XT or one year of high school biology) and a grade of C or better in RDG100 or RDG100LL or higher or eligibility for CRE101. CHM130 or higher or one year of high school chemistry suggested but not required. | Course Attribute(s): General Education Designation: Natural Sciences (General) - [SG] Arizona Shared Unique Number SUN# BIO 2201 | Acad | LEC 4.0 3.0 3.0 LAB 0.0 3.0 3.0 | T |
| BIO201XT | 2023 Fall | Human Anatomy and Physiology I | | Study of structure and function of the human body. Topics include cells, tissues, integumentary system, skeletal system, muscular system, and nervous system. | Prerequisites: A grade of C or better in (BIO156, or BIO156XT, or BIO181, or BIO181XT, or one year of high school biology) | Course Attribute(s): General Education Designation: Natural Sciences (General) - [SG] | Acad | LEC 4.0 3.0 3.0 LAB 0.0 4.0 4.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | and (RDG100, or RDG100LL, or higher, or eligibility for CRE101). CHM130 or higher or one year of high school chemistry suggested but not required. | | | | |
| BIO202 | 2023 Fall | Human Anatomy and Physiology II | | Continuation of structure and function of the human body. Topics include endocrine, circulatory, lymphatic, respiratory, digestive, urinary, and reproductive systems; and fluid and electrolyte balance. | Prerequisites: A grade of C or better in BIO201 or BIO201XT. | Course Attribute(s): General Education Designation: Natural Sciences (General) - [SG] Arizona Shared Unique Number SUN# BIO 2202 | Acad | LEC 4.0 3.0 3.0 LAB 0.0 3.0 3.0 | T |
| BIO205 | 2023 Fall | Microbiology | | Study of microorganisms and their relationship to health, ecology, and related fields. | Prerequisites: A grade of C or better in (BIO156, or BIO156XT, or BIO181, or BIO181XT, or one year of high school biology) and (RDG100, or RDG100LL, or higher, or eligibility for CRE101). CHM130 or higher or one year of high school chemistry suggested but not required. | Course Attribute(s): General Education Designation: Natural Sciences (General) - [SG] Arizona Shared Unique Number SUN# BIO 2205 | Acad | LEC 4.0 3.0 3.0 LAB 0.0 3.0 3.0 | T |
| BIO208 | 2023 Fall | Nucleic Acid Methods | | Intensive introduction to laboratory methods for the isolation, purification, manipulation analysis and quantification of nucleic acids. | Prerequisites: A grade of C or better in [ABS173 and ABS175 and (BIO156 or BIO181)] or permission of Instructor. | | Acad | L+L 3.0 6.0 6.0 | T |
| BIO209 | 2023 Fall | Biomolecular Separation | | Introduction to industrial laboratory biotechnology with intensive focus on the recovery of heterologous proteins and other biomolecules from cultivated cells and the subsequent recovery, purification and characterization of these molecules. | Prerequisites: A grade of C or better in [ABS173 and ABS175 and (BIO156 or BIO181)] or permission of Instructor. | | Acad | L+L 3.0 6.0 6.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| BIO210 | 2018 Fall | Advanced Lab Instrumentation | | Provides training in the principles, operation and interpretation of data from laboratory instrumentation. | Prerequisites: A grade of C or better in BIO208, or BIO209, or permission of Instructor. | | Acad | L+L 3.0 6.0 6.0 | T |
| BIO211AA | 2009 Spring | Biotechnology Seminar: Biomedical Applications | | Special topics in biotechnology with an emphasis on current issues not covered in other life science courses | Prerequisites: None. | BIO211AA may be repeated for a total of two (2) credit hours | Acad | LEC 1.0 1.0 1.0 | S |
| BIO211AB | 2009 Spring | Biotechnology Seminar: Laboratory Protocol | | Special topics in biotechnology with an emphasis on current issues not covered in other life science courses | Prerequisites: A grade of C or better in BIO211AA or permission of Instructor. | BIO211AB may be repeated for a total of two (2) credit hours | Acad | LEC 1.0 1.0 1.0 | S |
| BIO211AE | 2023 Fall | Biotechnology Seminar: Business and Regulatory Issues | | Selected topics in biotechnology with an emphasis on current issues not covered in other life science courses. | Prerequisites: None. | | Acad | LEC 1.0 1.0 1.0 | S |
| BIO213 | 2023 Fall | Biotechnology Refresher | | Opportunity for students who need more practice with biotechnology laboratory techniques to review their skills. | Prerequisites: A grade of C or better in (BIO208 or BIO209) and permission of Program Director. | BIO213 may not be substituted for any of the prerequisite courses or BIO210 in satisfaction of degree requirements. BIO213 may be repeated for a total of four (4) credit hours. | Acad | L+L 2.0 6.0 6.0 | T |
| BIO215AB | 2023 Fall | Biotechnology Internship | | Internship experience in a biotechnology laboratory. Setting, achieving, and evaluating goals for hands-on learning experience in a biotechnology laboratory. Development of skills and knowledge needed to work in a biotechnology laboratory. | Prerequisites: A grade of C or better in (BIO208 or BIO209 or BIO213) and permission of Program Director. | BIO215AB requires 160 clock hours in the laboratory setting. BIO215AB may be repeated for a total of six credit hours. | Acad | LAB 2.0 2.0 0.0 | C |
| BIO215AC | 2023 Fall | Biotechnology Internship | | Internship experience in a biotechnology laboratory. Setting, achieving, and evaluating goals for hands-on learning experience in a biotechnology laboratory. Development of skills and knowledge needed to work in a biotechnology laboratory. | Prerequisites: A grade of C or better in (BIO208 or BIO209 or BIO213) and permission of Program Director. | BIO215AC requires 240 clock hours in the laboratory setting. BIO215AC may be repeated for a total of six credit hours. | Acad | LAB 3.0 3.0 0.0 | C |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| BIO220 | 2018 Fall | Biology of Microorganisms | | Detailed study of microbial cells, their structure, genetics, physiology and taxonomy. | Prerequisites: A grade of C or better in BIO181. Corequisites: (CHM152 and CHM152LL) or (CHM154 and CHM154LL). | | | LEC 4.0 3.0 3.0 LAB 0.0 3.0 3.0 | T |
| BIO234 | 2021 Spring | Fundamental Evolutionary Biology | | Fundamentals of evolutionary theory including natural selection, adaptation, species concepts, speciation, extinction, basics of phylogenetics, molecular and population genetics, and the evolution of sex and sociality. | A grade of C or better required in all Prerequisites. Prerequisites or Corequisites: BIO182 or permission of Instructor. | Acad | | LEC 3.0 3.0 3.0 | S |
| BIO240 | 2023 Fall | General Genetics | | In depth examination of the field of genetics. | Prerequisites: A grade of C or better in BIO181, or BIO181XT, or permission of Instructor. | | | LEC 4.0 4.0 4.0 | S |
| BIO241 | 2018 Fall | Human Genetics | | An introduction to the basic concepts of human heredity and cytogenetics including Mendelian, molecular, and population genetics | Prerequisites: A grade of C or better in BIO100 or BIO181 or equivalent or permission of Instructor. | Course Attribute(s): General Education Designation: Natural Sciences (Quantitative) - [SQ] | | LEC 4.0 3.0 3.0 LAB 0.0 3.0 3.0 | T |
| BIO249 | 2021 Fall | Applied Biosciences: Biotechnology Internship | | Internship/work experience in a biotechnology laboratory. Setting, achieving, and evaluating goals for hands-on learning experiences in a biotechnology laboratory. Development of skills and knowledge needed to work in a biotechnology laboratory. | Prerequisites: Permission of Instructor. | BIO249 requires a minimum of 320 clock hours in the biotechnology laboratory setting. | | LAB 4.0 4.0 0.0 | C |
| BIO254 | 2018 Fall | Entomology | | Form, activities, and classification of insects. | Prerequisites: One semester of college-level biology or equivalent or permission of Instructor. | | | LEC 4.0 3.0 3.0 LAB 0.0 3.0 3.0 | T |
| BIO270 | 2012 Spring | Sustainable Biological Systems | | Course to introduce concepts in Ecology covering abiotic and biotic systems, population biology and ecology, community ecology, biotic communities, disturbance and succession, biogeography, fire | Prerequisites: A grade of C or better in BIO181. | | | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | ecology, evolution in changing environments, human population biology, and issues in ecology. | | | | | |
| BIO276 | 2018 Fall | Scientific Diving | | Theory and practice of underwater research using snorkel and self-contained underwater breathing apparatus (SCUBA). Advanced diving skills, data acquisition and processing, and planning an underwater study. | Prerequisites: A grade of C or beter in PED101SU or PED201SU (any certification card from a nationally recognized agency.) BIO145 or BIO181 recommended but not required. | | | L+L 3.0 4.0 4.0 | T |
| BIO282AA | 2013 Fall | Service-Learning Experience in Biology | | Unpaid Service-Learning (SL) experience, completed with approved community partner. | Prerequisites: Permission of Instructor. | BIO282AA may be repeated for a total of six (6) credit hours. Standard grading available according to procedures outlined in catalog. | Acad | LAB 1.0 1.0 0.0 | L |
| BIO282AB | 2013 Fall | Service-Learning Experience in Biology | | Unpaid Service-Learning (SL) experience, completed with approved community partner. | Prerequisites: Permission of Instructor. | BIO282AB may be repeated for a total of six (6) credit hours. Standard grading available according to procedures outlined in catalog. | Acad | LAB 2.0 2.0 0.0 | L |
| BIO282AC | 2013 Fall | Service-Learning Experience in Biology | | Unpaid Service-Learning (SL) experience, completed with approved community partner. | Prerequisites: Permission of Instructor. | BIO282AC may be repeated for a total of six (6) credit hours. Standard grading available according to procedures outlined in catalog. | Acad | LAB 3.0 3.0 0.0 | L |
| BIO283 | 2023 Fall | Bioinformatics and Scientific Computing | CSC283 | Introduction to bioinformatics, including history, concepts, major genetic databases and access tools. Computer software and techniques for analyzing one nucleotide or protein sequence, searching for similar sequences, and aligning and comparing two or multiple sequences. Microarray analysis and phylogenetic trees. Application of standard software to bioinformatic computing tasks, including word processing of reports, and use of spreadsheets for statistical analysis and graphing. Text | Prerequisites: A grade of C or better in [(BIO156 or BIO181) and (MAT095, or MAT096, or MAT114, or MAT115, or MAT12+, OR an appropriate district placement for MAT15+ or higher)], or permission of Instructor or Department/Division Chair. Concurrent enrollment in, or previous completion of BIO208 is strongly suggested but not required. | Acad | | L+L 3.0 4.0 4.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | editors, Unix, Internet web site searching and construction, and ethics. | | | | | |
| BIO290AA | 2023 Fall | Biology Internship | | Internship experience with a public or private agency, non-profit organization or special interest group related to some aspect or application of biology. | Prerequisites: Permission of Instructor. | BIO290AA requires a minimum of 80 clock hours in the internship setting. BIO290AA may be repeated for a total of two (2) credit hours. | Acad | LAB 1.0 1.0 0.0 | C |
| BIO290AB | 2023 Fall | Biology Internship | | Internship experience with a public or private agency, non-profit organization or special interest group related to some aspect or application of biology. | Prerequisites: Permission of Instructor. | BIO290AB requires a minimum of 160 clock hours in the internship setting. BIO290AB may be repeated for a total of four (4) credit hours. | Acad | LAB 2.0 2.0 0.0 | C |
| BIO290AC | 2023 Fall | Biology Internship | | Internship experience with a public or private agency, non-profit organization or special interest group related to some aspect or application of biology. | Prerequisites: Permission of Instructor. | BIO290AC requires a minimum of 240 clock hours in the internship setting. BIO290AC may be repeated for a total of six (6) credit hours. | Acad | LAB 3.0 3.0 0.0 | C |
| BIO292 | 2018 Fall | Advanced Recitation in Biology | | Discussion, guided practice and problem solving related to advanced topics in biology. | Prerequisites: None. Corequisites: Any 200-level BIO Biology course or permission of Instructor. | BIO292 may be repeated for credit. | Acad | L+L 1.0 1.0 1.0 | T |
| BIO294AA | 2018 Fall | Special Topics in Biology- Advanced | | Advanced evidence-based study of a current topic in biology from a research and theoretical perspective. | Prerequisites: Permission of Instructor. | BIO294AA may be repeated for credit. | Acad | LEC 1.0 1.0 1.0 | S |
| BIO294AB | 2018 Fall | Special Topics in Biology-Advanced | | Advanced evidence-based study of a current topic in biology from a research and theoretical perspective. Includes integrated laboratory and/or field applications of related methodologies. | Prerequisites: Permission of Instructor. | BIO294AB may be repeated for credit. | Acad | L+L 1.0 2.0 2.0 | T |
| BIO294AC | 2018 Fall | Special Topics in Biology-Advanced | | Advanced evidence-based study of a current topic in biology from a research and theoretical perspective. Includes integrated laboratory and/or field applications of related methodologies. | Prerequisites: Permission of Instructor. | BIO294AC may be repeated for credit. | Acad | LEC 2.0 1.0 1.0 LAB 0.0 3.0 3.0 | T |
| BIO295AA | 2017 Fall | Independent Research in Biology | | Original scientific investigation of biological phenomenon. | Prerequisites: A grade of C or better in | BIO295AA requires a minimum of 80 hours of independent | Acad | LAB 1.0 1.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | (BIO156 or BIO181) and permission of Instructor. | laboratory and/or field study. BIO295AA may be repeated for credit. | | | |
| BIO295AB | 2017 Fall | Independent Research in Biology | | Original scientific investigation of biological phenomenon. | Prerequisites: A grade of C or better in (BIO156 or BIO181) and permission of Instructor. | BIO295AB requires a minimum of 160 hours of independent laboratory and/or field study. BIO295AB may be repeated for credit. | Acad | LAB 2.0 2.0 0.0 | Z |
| BIO295AC | 2017 Fall | Independent Research in Biology | | Original scientific investigation of biological phenomenon. | Prerequisites: A grade of C or better in (BIO156 or BIO181) and permission of Instructor. | BIO295AC requires a minimum of 240 hours of independent laboratory and/or field study. BIO295AC may be repeated for credit. | Acad | LAB 3.0 3.0 0.0 | Z |
| BIO296WA | 2023 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. | Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor. | | Acad | LAB 1.0 5.0 0.0 | Z |
| BIO296WB | 2023 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. | Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest | | Acad | LAB 2.0 10.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | or with permission of the Instructor. | | | | |
| BIO296WC | 2023 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. | Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor. | | Acad | LAB 3.0 15.0 0.0 | Z |
| BIO296WD | 2023 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. | Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor. | | Acad | LAB 4.0 20.0 0.0 | Z |
| BIO298AA | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. | Prerequisites: Permission of Program Director or Instructor. | | Acad | LAB 1.0 1.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | | | | | |
| BIO298AB | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | Prerequisites: Permission of Program Director or Instructor. | Acad | | LAB 2.0 2.0 0.0 | Z |
| BIO298AC | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | Prerequisites: Permission of Program Director or Instructor. | Acad | | LAB 3.0 3.0 0.0 | Z |
| BLT101 | 2000 Spring | Introduction to Construction Trades | | Introduction to trade and craft apprenticeships in Arizona, including concrete, carpentry, millwright, pipefitting, steamfitting and plumbing, sheet metal, painter, decorator and drywall taper, electrician and ironworker | Prerequisites: None. | | Occ | LEC 1.0 1.0 1.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| BLT120 | 1995 Fall | Techniques of Building Inspection | | Theory and practice of zoning, foundation, structural, mechanical and electrical inspection in modern residential and commercial construction | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| BLT121 | 1994 Fall | Electrical Codes | | Principles of safe electrical installations and proper inspection procedures. Topics include conduit installation, transformer service, raceways, control circuits, grounding and bonding, hazardous occupancies and the National Electrical Code | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| BLT122 | 1996 Fall | Basic Engineering for Building Inspectors and Contractors I | | Basic engineering mechanics, gravity loads, shears, bending moments, wood frame construction, deck joints, beams, columns, bracing and shear walls. | Prerequisites: A grade of C or better in BLT120 and MAT187 or equivalent or permission of Department or Division. | | | LEC 3.0 3.0 3.0 | S |
| BLT124 | 1997 Fall | Designing for the Americans with Disabilities Act(ADA) | | In-depth analysis of federal standards described in the Americans with Disabilities Act (ADA). Reviews the state of Arizona's enforcement document (AzDAAG). Focuses on helping designers, architects, and building officials create barrier-free buildings and facilities | Prerequisites: None. | Occ | Occ | LEC 3.0 3.0 3.0 | S |
| BLT125 | 1990 Fall | Residential Electrical Codes | | National Electrical Code requirements for safe electrical installations and proper inspection procedures in residential buildings. Topics include branch circuitry, feeder calculations, services grounding, overcurrent protection, wiring methods, types and proper usage of material, swimming pool installation | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| BLT126 | 2015 Fall | Soil Mechanics | | Soil conditions as related to modern building requirements. Topics include bearing value, | Prerequisites: A grade of C or better in MAT150 or MAT151 or | | | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | classification and identification, exploration and samplings, behavior of fills, compaction, subsurface drainage, and field sampling. | MAT152 or satisfactory score on District placement exam. | | | | |
| BLT127 | 1994 Fall | Plumbing Codes | | Code requirements and construction practices. Topics include underground and above ground plumbing, venting and finish plumbing | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| BLT128 | 1994 Fall | Mechanical Codes | | Code requirements and construction practices. Topics include duct work, conductors and fuel supply, insulation, and controls | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| BLT129 | 1994 Fall | Materials of Construction | | Fundamental characteristics of modern construction materials and the effective use of these materials in construction | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| BLT131 | 1996 Spring | Applied Electric Codes | | National Electric Code (NEC) administration and application. NEC requirements for safe installation of system control equipment and design of electric utilization systems. Identification of wiring systems and permitted uses. Application of NEC requirements for hazardous locations, specific occupancies, and special uses of electric equipment | Prerequisites: None. | | Occ | LEC 4.0 4.0 4.0 | S |
| BLT132 | 1996 Spring | Applied Plumbing Codes | | Plumbing code administration. Application, design and installation of drainage/waste and venting systems in private and public buildings. Application of plumbing codes for design and installation of water systems | Prerequisites: None. | | Occ | LEC 4.0 4.0 4.0 | S |
| BLT140 | 2000 Spring | Environmentally Responsible Building | | An overview of environmentally responsible building and a historical survey of building methodologies. Introduces | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | design concepts and strategies related to the mitigation of environmental impacts. Examines building processes, environmental issues and the interdependent nature of our built environment. Topics include human impacts, climate and geography, sustainability, renewable energies, water use and energy, resource efficiency, building materials, indoor air quality and waste reduction | | | | | |
| BLT142 | 2011 Summer I | Green Building Codes, Standards and Rating Systems | | Surveys green building rating systems, environmental building standards and green construction codes; addresses the broader scope of public health, safety and general welfare in the context of regulations and the natural environment; examines site development and land use, material resource conservation, energy efficiency, water resource conservation, indoor environmental quality, building commissioning, operation and maintenance; includes exercises demonstrating the use of tools and applying the principles discussed during the course. | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| BLT191 | 2021 Fall | Applied Plumbing Codes | | Uniform plumbing code and plumbing systems installation requirements. Code administration as well as requirements relative to the installation and maintenance of plumbing systems. | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| BLT200 | 2000 Fall | Construction Management: Field Operations | | Skills and techniques necessary for management of construction field operations. | Prerequisites: A grade of C or better in DFT126 and GTC121 or | | | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Includes job scheduling, inspection techniques, personnel relations, safety, and the scope and supervision of the overall construction process. | departmental permission. | | | | |
| BLT201 | 2002 Fall | Construction Management: Office Operations | | Develops the skills and techniques necessary for successful management of construction office operations. Includes establishing and financing the business, marketing, office operations, and relationships with other construction industry entities | Prerequisites: A grade of C or better in DFT122 or DFT126 or GTC121 or permission of Instructor. | | Occ | LEC 3.0 3.0 3.0 | S |
| BLT263AK | 2003 Spring | Building Codes: IBC | | Designed specifically to acquaint students with safety principles of building construction under the International Building Code (IBC), including structural requirements for wood, masonry and concrete, fire resistance of building construction, fire resistant materials, and ratings and occupancy requirements | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| BLT263AL | 2003 Spring | Building Codes: IRC | | Designed specifically to acquaint students with safety principles of building construction under the International Residential Code, including structural requirements for wood, masonry and concrete, fire resistance of building construction, fire resistant materials, and ratings and occupancy requirements | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| BLT296WA | 2002 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to | | | LAB 1.0 5.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | COMMON COMPETENCY COURSE | students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor. | | | | |
| BLT296WB | 2002 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor. | | Occ | LAB 2.0 10.0 0.0 | Z |
| BLT296WC | 2002 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or | Occ | | LAB 3.0 15.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | career interest or with permission of Instructor. | | | | |
| BLT296WD | 2002 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor. | | Occ | LAB 4.0 20.0 0.0 | Z |
| BLT298AA | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. | Prerequisites: Permission of Program Director or Instructor. | Course Attribute(s): COMMON COMPETENCY COURSE | Occ | LAB 1.0 1.0 0.0 | Z |
| BLT298AB | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of | Prerequisites: Permission of Program Director or Instructor. | Course Attribute(s): COMMON COMPETENCY COURSE | Occ | LAB 2.0 2.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | independent study and individualized learning to be combined to maximize student development. | | | | | |
| BLT298AC | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. | Prerequisites: Permission of Program Director or Instructor. | Course Attribute(s): COMMON COMPETENCY COURSE | Occ | LAB 3.0 3.0 0.0 | Z |
| BME101 | 2020 Fall | Introduction to Biomedical Equipment Technology | | Introduces fundamental concepts of the field of biomedical equipment technology. Emphasis on the responsibilities of the technician, electrical safety, and knowledge of devices and their functions, maintenance, and repair. | Prerequisites: A grade of C or better in ELE111, BIO160 and (HCC145 or HCC145AA). | | Occ | LEC 3.0 3.0 3.0 | S |
| BPC100AA | 1996 Fall | Business-Personal Computers I | | Introduction to the use of personal computers in the business environment. Computer hardware components, operating system functions and concepts. Running application software | Prerequisites: None. | | Occ | LEC 0.5 0.5 0.5 | S |
| BPC100AB | 1996 Fall | Business-Personal Computers II | | Use the personal computer to create, store and retrieve information. Procedures for running and using business application software to produce documents and spreadsheets | Prerequisites: A grade of C or better in BPC100AA or permission of Instructor. | | Occ | LEC 0.5 0.5 0.5 | S |
| BPC100AD | 2018 Fall | Computing Fundamentals | | Fundamental computer concepts and terminology for | Prerequisites: None. | | Occ | L+L 1.0 2.0 2.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | business and personal computers | | | | | |
| BPC100BD | 2018 Fall | Key Software Applications | | Covers basic features of software applications for business and personal computers | Prerequisites: None. | | Occ | L+L 1.0 1.0 1.0 | T |
| BPC100CD | 2018 Fall | Living Online | | Fundamental network and Internet concepts and terminology for business and personal computers. Covers basic features of electronic mail applications | Prerequisites: None. | | Occ | L+L 1.0 1.0 1.0 | T |
| BPC100DD | 2018 Fall | Internet and Computing Fundamentals | | Fundamental computer and Internet concepts and terminology for business and personal computers. Covers basic features of software applications | Prerequisites: None. | | Occ | L+L 3.0 4.0 4.0 | T |
| BPC101 | 2018 Fall | Introduction to Computers | | Computer software applications for the personal computer, including electronic spreadsheet and word processing, keyboarding review, a desktop environment, database management, computer graphics and operating system commands. Individualized advanced applications of software selected to solve specific problems on the personal computer. | Prerequisites: None. | | Occ | L+L 3.0 4.0 4.0 | T |
| BPC101AA | 2018 Fall | Introduction to Computers I | | Computer software applications for the personal computer, including electronic spreadsheet and word processing, keyboarding review, and a desktop environment. | Prerequisites: None. | Course Attribute(s): COMMON COMPETENCY COURSE | Occ | L+L 1.0 2.0 2.0 | T |
| BPC101AB | 1997 Fall | Introduction to Microcomputers I: Macintosh | | Microcomputer software applications for the Macintosh personal computer, including electronic spreadsheet and word processing, keyboarding | Prerequisites: None. | | Occ | LEC 1.0 2.0 1.7 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | review, and a desktop environment | | | | | |
| BPC101BA | 2018 Fall | Introduction to Computers II | | Computer software applications for the personal computer, including database management, computer graphics, electronic spreadsheet, and word processing, and operating system commands | Prerequisites: A grade of C or better in BPC101AA. | Course Attribute(s): COMMON COMPETENCY COURSE | Occ | L+L 1.0 1.0 1.0 | T |
| BPC103AK | 2001 Summer I | Using Word: Level I | | Use of Word to create, manipulate and print documents on a microcomputer | Prerequisites: None. | | Occ | LEC 0.5 0.5 0.5 | S |
| BPC104AD | 1992 Fall | Using Excel: Level I | | Use of Excel to create, edit, save and print worksheets | Prerequisites: None. | | Occ | LEC 0.5 0.5 0.5 | S |
| BPC104BD | 1994 Summer I | Using Excel: Level II | | Use of Excel to enhance worksheets to include graphing and formatting data, using complex formula and function expressions to build and analyze data, and special print options to output worksheets and graphs | Prerequisites: A grade of C or better in BPC104AD or permission of Instructor. | | Occ | LEC 0.5 0.5 0.5 | S |
| BPC104CD | 2018 Spring | Using Excel: Level III | | Use of Excel to produce worksheets utilizing macros for template development and automation of repetitious tasks, and worksheet methods for the storage and management of data. | Prerequisites: A grade of C or better in BPC104BD or permission of Instructor. | | Occ | LEC 0.5 0.5 0.5 | S |
| BPC106AH | 2018 Fall | MS Outlook: Level I | | Messaging and word processing functions of a Microsoft Outlook electronic work state | Prerequisites: None. | | Occ | L+L 0.5 0.5 0.5 | T |
| BPC106BH | 2018 Fall | Microsoft Outlook: Level II | | Microsoft Outlook features including sort, filter and group items; templates and forms; information sharing by public folders and Net Folders; share and fax contacts; and record activities in the Journal. Outlook environment customization also covered | Prerequisites: A grade of C or better in BPC106AH or permission of Instructor. | | Occ | L+L 0.5 0.5 0.5 | T |
| BPC110 | 2018 Fall | Computer Usage and Applications | | Introduction to business and personal computer operations | Prerequisites: None. | Course Attribute(s): General Education Designation: | Occ | L+L 3.0 4.0 4.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | and usage. Software applications for analyzing and solving business problems including word processing, spreadsheet, database, and presentation graphics | | Computer/Statistics/Quantitative Applications - [CS] | | | |
| BPC111AA | 2018 Fall | Computer Keyboarding I | OAS111AA | Mastery of essential microcomputer keyboarding skills. Emphasis on touch typing of alphabetic and numeric keys and symbols | Prerequisites: None. | | Occ | L+L 1.0 1.7 1.7 | T |
| BPC111AB | 2018 Fall | Computer Keyboarding II | | Further development of microcomputer keyboard speed and accuracy. Emphasis on touch typing with speed and accuracy development of numerals as related to preparation and handling of documents. | Prerequisites: A grade of C or better in BPC/OAS111AA or permission of Instructor. | | Occ | L+L 1.0 1.7 1.7 | T |
| BPC113 | 2018 Fall | Micro-Alphabetic Indexing | | Mastery of essential microcomputer filing skills. Emphasis on indexing and alphabetizing individual and business names; subject, geographic, and numeric methods; and cross-referencing. | Prerequisites: None. | | Occ | L+L 1.0 1.7 1.7 | T |
| BPC119 | 2018 Fall | Basic Data Entry Activities | | Development of speed and accuracy of data entry skills. Includes vocabulary, keyboard drills, and data entry simulations. | Prerequisites: A grade of C or better in (BPC111AA or OAS111AA or OAS101AA) or permission of Instructor. OAS118 recommended but not required. | | | LAB 1.0 2.0 2.0 | T |
| BPC125 | 2018 Fall | Microcomputer Set Up and Maintenance | | How to install and maintain a microcomputer (personal computer). Steps used to set up a new or add options to a previously installed microcomputer. Installation of internal options (memory, graphics, modems, etc.), as well as external options and devices (printers, monitors, communications, etc.). | Prerequisites: None. | Occ | Occ | L+L 1.0 1.0 1.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Troubleshoot (identify and repair or have repaired) microcomputer problems | | | | | |
| BPC128 | 2018 Fall | Introduction to Desktop Publishing | | Presents basic concepts of commercially prepared software used to do desktop publishing. Incorporates a combination of narrative and pictorial/graphic creation and presentation, including set-up, text entry, graphic generation, text and graphic merging, and other computer-based functions | Prerequisites: None. | | Occ | L+L 1.0 2.0 2.0 | T |
| BPC128AF | 2018 Fall | Introduction to Desktop Publishing: MS Publisher | | Presents basic concepts of commercially prepared software used to do desktop publishing. Incorporates a combination of narrative and pictorial/graphic creation and presentation, including set-up, text entry, graphic generation, text and graphic merging, and other computer-based functions | Prerequisites: None. | | Occ | L+L 1.0 2.0 2.0 | T |
| BPC138AA | 2018 Fall | Windows Desktop Design and Publishing | | Use of Windows based microcomputers and appropriate commercial software package to compose and print textual and graphic materials of high quality. Includes overview of micro operating system, word processing of copy, use of graphics programs, layout of design elements, and printing alternatives. | Prerequisites: A grade of C or better in CIS105 or BPC110 or permission of Instructor. | | Occ | L+L 3.0 4.0 4.0 | T |
| BPC160 | 2019 Fall | AppleCare: Service Fundamentals | | Prepares students to become certified in repairing and troubleshooting iOS or macOS devices. It prepares the students for the AppleCare Certified technician exams: Apple Certified iOS Technician (ACIT) and Apple Certified Mac Technician | Prerequisites: None. | | Occ | L+L 3.0 4.0 4.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | (ACMT). Students will learn the Apple service style for customer interactions, safety precautions, and basic troubleshooting skills. | | | | | |
| BPC170 | 2020 Fall | A+ Exam Prep: Computer Hardware Configuration and Support | | Explore technical aspects of personal computers, including system components, installation, system configuration, peripheral devices, and notebooks. Emphasis placed on hardware installation, maintenance, mobile devices, and hardware troubleshooting. Helps prepare students for the CompTIA A+ examinations. | Prerequisites: None. | | Occ | L+L 3.0 4.0 4.0 | T |
| BPC171 | 2018 Fall | Recycling Used Computer Technology | | Use of hardware maintenance knowledge and skills to refurbish used computers. | Prerequisites: A grade of C or better in BPC170 or Corequisites: BPC170 or permission of Instructor. | BPC171 may be repeated for a total of three (3) credit hours. | Occ | L+L 1.0 2.0 2.0 | T |
| BPC210 | 2018 Fall | Advanced Computer Usage and Applications | | Advanced application of software for business and personal computers including word processing, spreadsheet, database, and presentation. Includes integration of applications and Internet | Prerequisites: A grade of C or better in BPC110 or permission of Instructor. | | Occ | L+L 3.0 4.0 4.0 | T |
| BPC225 | 2018 Fall | Computer Configuration and Enhancement | | Configuration and enhancement of a computer. Emphasis on configuration of hardware and software to optimize computer performance. Includes memory configuration and the identification and troubleshooting of configuration problems | Prerequisites: A grade of C or better in BPC125 or permission of Instructor. | | Occ | L+L 1.0 2.0 2.0 | T |
| BPC250 | 2018 Fall | Post-Advanced Computer Usage and Applications | | Post-advanced applications of software for business and personal computers including word processing, spreadsheet, database, and | Prerequisites: A grade of C or better in BPC210 or permission of Instructor. | | Occ | L+L 3.0 4.0 4.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | presentation. Includes integration of applications and Internet | | | | | |
| BPC260 | 2021 Spring | AppleCare iPhone Technician (ACIT) Certification | | Prepares students for the AppleCare iPhone Technician Certification and to perform warranty level hardware repairs and troubleshooting Apple iOS devices. | Prerequisites: None. | | Occ | L+L 3.0 4.0 4.0 | T |
| BPC262 | 2021 Spring | AppleCare MAC Technician (ACMT) Certification | | Prepares the students for the AppleCare MAC Technician certification exam and to perform warranty level hardware repairs on Apple iOS devices. | Prerequisites: None. | | Occ | L+L 3.0 4.0 4.0 | T |
| BPC270 | 2018 Fall | A+ Exam Prep: Operating System Configuration and Support | | Explore advanced technical aspects of maintaining and servicing computers. Emphasis placed on OS installation, maintenance, mobile devices, security, software troubleshooting, and on proper usage of tools, safety procedures, and professionalism. Helps prepare students for the CompTIA A+ examinations. | Prerequisites: A grade of C or better in CIS105 or permission of Instructor. | | Occ | L+L 3.0 4.0 4.0 | T |
| BPC274 | 2022 Fall | Advanced Server Computer Maintenance: Server+ Prep | | Explores the technical aspects of computer servers, including hardware installation and management; operating system configuration, access control and virtualization; and overall diagnostic and resolution of system hardware, software, connectivity, storage and security issues. Includes an emphasis on physical and network data security techniques and implementation of backup techniques to remediate disaster recoveries. Helps prepare students for the | Prerequisites: A grade of C or better in (CIS126++ and MST150++), or BPC270, or permission of Instructor. | | Occ | L+L 3.0 4.0 4.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | CompTIA Server+ examination. | | | | | |
| BPC275 | 2021 Spring | CompTIA Exam Prep | | Focuses on reviewing key concepts, practicing skills and preparing to successfully demonstrate existing knowledge on CompTIA certification exams. The course is designed to provide an overview of exam topics, study and test-taking strategies. It also will include structured study time, group discussions, and the use of practice exams to assess test readiness. | Prerequisites: A grade of C or better in BPC170, or BPC270, or permission of the Instructor. | Students should be finishing a CompTIA class, looking for CompTIA certificate renewal, or have industry or other prior training in CompTIA topics and concepts. BPC275 may be repeated for a total of six (6) credit hours. | Occ | L+L 2.0 3.0 3.0 | T |
| BPC278 | 2018 Fall | Software Installation - MS Windows | | Installing and configuring microcomputer software. Emphasis placed on the installation, configuration, upgrade, and related problem resolution of microcomputer operating system and applications software. | Prerequisites: A grade of C or better in CIS105 or BPC114 or CIS114 (any module whose course number suffix begins with a D) BPC117 or CIS117 (any module whose course number suffix begins with a D) and BPC170 or permission of Instructor. | | | L+L 3.0 4.0 4.0 | T |
| CAD100 | 2018 Fall | Fundamentals of 2D AutoCAD | | Utilize AutoCAD software to generate two-dimensional (2-D) drawings and components in a generic installation. Apply basic AutoCAD commands and properties to format, draw, edit, layer, dimension, import/export, and manage drawing files. Creation, manipulation, and hardcopy production of 2-D drawing files from major AutoCAD command and display environments and plot options | Prerequisites: None. | Occ | Occ | L+L 3.0 6.0 6.0 | T |
| CAD101 | 2018 Fall | Elements of CAD Graphics (AutoCAD) | | Computer generation of drafting and design components using pure elements and basic geometric | Prerequisites: A grade of C or better in CAD100 or Corequisites: CAD100 | | | L+L 3.0 6.0 6.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | procedures. Incorporates concept illustration based on standard pictorial methods and develops multi-view projection techniques and presentation methods. Introduction to the fundamentals of three-dimensional (3D) modeling and the construction and printing of 3D objects. | or permission of Instructor. | | | | |
| CAD105 | 2018 Fall | Fundamentals of Revit Architecture | | Introduction to Revit Architecture. Utilize Revit software to develop and generate basic 3-D models and components. Create, edit, dimension, and manage 2-D and 3-D drawing views and projects. Produce drawing files and plots using various display environments and plot options. | Prerequisites: A grade of C or better in CAD100 or (previous architectural and CAD experience, and permission of Department or Division). | | Occ | L+L 3.0 6.0 6.0 | T |
| CAD106 | 2020 Spring | Fundamentals of Civil 3D | | Introduction to Civil 3D. Utilize Civil 3D software to develop and generate basic 3D models and components. Create, edit, dimension, and manage 2D and 3D drawing views and projects. Produce drawing files and plots using various display environments and plot options. | Prerequisites: A grade of C or better in CAD100 or (previous civil and CAD experience, and permission of Department or Division). | | Occ | L+L 3.0 6.0 6.0 | T |
| CAD120AH | 2018 Fall | Getting Started with CAD: Microstation | | Basic Commands; drawing aids; input devices; use of default settings | Prerequisites: None. | | Occ | L+L 1.0 2.0 2.0 | T |
| CAD125AH | 2018 Fall | Drawing Database Management: Microstation | | Operating the system file manager. Establishing, updating, managing, and maintaining a CAD drawing database | Prerequisites: A grade of C or better in CAD120AH or permission of Instructor. | | Occ | L+L 1.0 2.0 2.0 | T |
| CAD145 | 2018 Fall | Design Principles for Industry | | Survey of the basic standards and procedures for drawing setups and design documentation in the fields of architecture, manufacturing, and civil technology. Multi- | Prerequisites: A grade of C or better in (CAD100 and CAD101) or permission of Instructor. | | Occ | L+L 3.0 6.0 6.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | source hard copy design presentation. | | | | | |
| CAD150AH | 2018 Fall | Two-Dimensional CAD: Microstation | | Constructing scaled two-dimensional drawing using CAD. | Prerequisites: A grade of C or better in CAD125AH or permission of Instructor. | | Occ | L+L 1.0 2.0 2.0 | T |
| CAD160 | 2018 Fall | Residential Architectural Drafting | | Basic skills associated with board drafting in the architectural field | Prerequisites: A grade of C or better in (CAD105 CAD110 and CAD115) or permission of Instructor. | | Occ | L+L 2.0 4.0 4.0 | T |
| CAD164 | 2018 Fall | Residential Working Drawings | | Team projects in the development of a set of architectural working drawings for a residence. | Prerequisites: A grade of C or better in CAD145 or permission of Instructor. | | Occ | L+L 3.0 6.0 6.0 | T |
| CAD165 | 2021 Fall | Architectural Software (AutoCAD Architecture) | | Introduction to AutoCAD Architecture, a modeling software used by architecture professionals. Procedures unique to advanced software and pertinent to architectural documentation. Emphasison residential working drawings. | Prerequisites: A grade of C or better in CAD145 or permission of Instructor. | | Occ | L+L 3.0 6.0 6.0 | T |
| CAD167 | 2018 Fall | Architectural Drawings I (Revit): Residential CAD | | Use of Revit architectural modeling software to develop 3-D architectural models, working drawings,construction documentation, and renderings. Emphasis on residential working drawings. | Prerequisites: A grade of C or better in CAD105 or permission of Department or Division. | | | L+L 3.0 6.0 6.0 | T |
| CAD186 | 2020 Spring | Site Development I | | Use coordinate geometry and survey point databases to create topographic maps utilizing civil engineering/surveying application software. Volumetric analysis of earthwork (cut and fills) utilizing civil engineering/surveying application software. Production of base mapping, earthwork, grading, and drainage plan utilizing civil engineering/surveying application software. | Prerequisites: A grade of C or better in CAD106 or permission of Instructor. | Occ | Occ | L+L 3.0 6.0 6.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| CAD201 | 2018 Fall | Three-Dimensional (3D) Modeling and Advanced CAD Techniques | | Advanced Computer Aided Drafting (CAD) techniques including the automation and semi-automation of design documentation, external referencing and attribute creation and manipulation. Development of three-dimensional (3D) models including construction, manipulation, rendering and 2D/3D output. | Prerequisites: A grade of C or better in (CAD100 and CAD101) or permission of Instructor. | | Occ | L+L 3.0 6.0 6.0 | T |
| CAD235 | 2021 Fall | Modeling, Rendering and Animation for Technical Presentations | | Entry level course in technical modeling, visualization, and animation. Uses 3D modeling software, rendering, and animation tools to visualize and solve design issues. Development of professional quality presentation materials for design projects. | Prerequisites: A grade of C or better in CAD201 or Corequisites: CAD201 or permission of Department or Division. | | | L+L 3.0 6.0 6.0 | T |
| CAD256 | 2021 Fall | CAD Customization and Management | | Emphasis on developing customized user interfaces and basic programming skills. Installation and configuration of software processes. File management techniques; file archival, batch plotting, file conversion, and CAD standards. | Prerequisites: A grade of C or better in DFT254AA or permission of Department or Division. | Occ | | L+L 3.0 6.0 6.0 | T |
| CAD265 | 2021 Fall | Architectural Software (AutoCAD Architecture) II: Commercial CAD | | Use of AutoCAD Architecture, an architectural modeling software to generate features associated with commercial building design. CAD treatment of selected details and other structural practices common to nonresidential buildings. Emphasis on the practices and standards of working drawings. | Prerequisites: A grade of C or better in CAD165. | Occ | Occ | L+L 3.0 6.0 6.0 | T |
| CAD267 | 2018 Fall | Architectural Drawings (REVIT) II: Commercial CAD | | Use of REVIT architectural modeling software utilized by the architectural industry to generate plans and features associated with commercial | Prerequisites: A grade of C or better in CAD167 or permission of Department or Division. | | | L+L 3.0 6.0 6.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | building design. Focus on CAD development of selected plans, details, and structural practices common to nonresidential buildings. | | | | | |
| CAD269 | 2018 Fall | Computer Aided Landscape Design | AGL269 | Using AutoCAD to create landscape design drawings and wire frames in Sketchup for elevations, sections and perspective sketches. | Prerequisites: A grade of C or better in : (AGB139 or CAD100 or CAD101) and AGL189 or permission of Instructor. | | Occ | L+L 3.0 6.0 6.0 | T |
| CAD274 | 2018 Fall | Residential Design CAD | | Developing designs with plans and details based on current design vogues. CAD problem solving associated with design | Prerequisites: A grade of C or better in (CAD152 and CAD164) or permission of Instructor. | | Occ | L+L 3.0 6.0 6.0 | T |
| CAD282 | 2018 Fall | HVAC and Sheet Metal Design | | Drawing, design, and specification of heating, ventilating, and air conditioning (HVAC) systems. Basic types of heating and cooling systems, heat loss calculations, sheet metal development, and solar design | Prerequisites: A grade of C or better in (CAD150 and [two of CAD262 CAD264 CAD266 CAD268]) or permission of Instructor. | | Occ | L+L 1.0 2.0 2.0 | T |
| CAD286 | 2018 Fall | Site Development II | | Use a coordinate geometry and survey point database to create construction drawings utilizing civil engineering/surveying software. | Prerequisites: A grade of C or better in CAD186. | | Occ | L+L 3.0 6.0 6.0 | T |
| CAD287 | 2020 Spring | Advanced Revit Techniques | | Advanced use of Revit architectural modeling software utilized by the architectural industry. Develop custom families with parameters and formulas, generate conceptual mass plans, prepare design phasing for renovation and tenant improvement projects, and work with advanced features associated with architectural building design. | Prerequisites: A grade of C or better in CAD167 or permission of Department or Division. | | | L+L 3.0 6.0 6.0 | T |
| CAD292 | 2018 Fall | Current Developments in CAD Technology | | The exploration and analysis of the newest software | Prerequisites: A grade of C or better in | DFT292 may be repeated for credit. | Occ | L+L 1.0 2.0 2.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | packages and/or plug-ins on the market designed to enhance or replace existing Computer Aided Drafting (CAD) software. Designed to introduce and develop skills in the latest state-of-the-art tools pertinent to industry today. | CAD100 or permission of Department or Division. | | | | |
| CAN101 | 2022 Fall | Introduction to Cannabis Industry | | Introductory overview of the cannabis industry. Explores the historical, legal, social, and political aspects of cannabis use, cannabis careers and business management, including business plans, for the cannabis industry. Includes how industry trends and regulations have influenced supporting industries and consumer behaviors. | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| CAN105 | 2023 Fall | Accounting, Finance and Funding in the Cannabis Industry | | Overview of the cannabis industry's financing, funding, accounting, and tax practices. Includes capital ventures and accounting procedures unique to the cannabis industry. | Prerequisites: A grade of C or better in CAN101. | | Occ | LEC 2.0 2.0 2.0 | S |
| CAN110 | 2022 Fall | Social Equity and Current Issues in the Cannabis Industry | | Social equity programs, trends, current issues and the societal impact in the cannabis industry. | Prerequisites: None. | | Occ | LEC 1.0 1.0 1.0 | S |
| CAN115 | 2023 Fall | Human Resources and Operations Management in the Cannabis Industry | | Overview of the human, facilities and capital management of the cannabis industry. Includes workforce development trends and best practices unique to the cannabis industry. | Prerequisites: A grade of C or better in CAN101. | | Occ | LEC 1.0 1.0 1.0 | S |
| CAN120 | 2022 Fall | Legal and Regulatory Environment in the Cannabis Industry | | Study of cannabis industry laws, policies, regulations and ethics in non-use, medicinal-use, and adult-use U.S. states and territories. | Prerequisites: A grade of C or better in CAN101. | | Occ | LEC 3.0 3.0 3.0 | S |
| CAN125 | 2022 Fall | Supply Chain Management in the Cannabis Industry | | Management of cannabis supply chain stages including: growing, extracting, laboratory | Prerequisites: A grade of C or better in CAN101. | | Occ | LEC 2.0 2.0 2.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | testing, product development and manufacturing, shipping and distributing, and dispensary and retailing across all legislative environments (federal, medicinal-use, and adult-use in U.S. states and territories). | | | | | |
| CAP120 | 2021 Fall | Introduction to Counseling | | Introduction to the field of counseling with a focus on skills and competencies needed as a mental health practitioner. Foundations of counseling including counseling theories, ethical considerations, prevention and intervention topics, and multicultural counseling practices. | Prerequisites: None. | | Acad | LEC 3.0 3.0 3.0 | S |
| CAP220 | 2021 Fall | The Counselor in a Multicultural Society | | Current theories and research on culture, race and ethnicity, gender and other aspects of cultural diversity in a multicultural society through the lens of counseling. Focus on personal perspectives, will explore themes, theories, topics and research related to power, privilege and oppression in the United States as applied to counseling discipline. | Prerequisites: None. | | Acad | LEC 3.0 3.0 3.0 | S |
| CAP240 | 2021 Fall | Introduction to Counseling Skills | | Introduction to basic skills and techniques used in the counseling field. Focuses on active listening, self-awareness, and other related skills. | Prerequisites: A grade of C or better in CAP120. | | Acad | LEC 3.0 3.0 3.0 | S |
| CAP260 | 2021 Fall | Career and Professional Preparation for the Helping Professions | | Overview of the process of career and life planning through self-awareness for students interested in helping fields. Focus on current occupational trends and outlook, the learning models of the individual, the world of | Prerequisites: A grade of C or better in ENG101. | | | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | work, and decision-making. Emphasis on individual application and workplace diversity. Design materials for use in the professional world such as resumes, online presence, career portfolio. | | | | | |
| CCS101 | 2008 Summer I | Chicana and Chicano Studies | | Introduction to the wealth and diversity of Chicana and Chicano Studies research from a variety of disciplinary perspectives through the use of a series of historical and social scientific studies, novels, testimonios, and films | Prerequisites: A grade of C or better in ENG101 or ENG107 or equivalent. | Course Attribute(s): General Education Designation: Cultural Diversity - [C] General Education Designation: Humanities, Arts and Design - [HU] | Acad | LEC 3.0 3.0 3.0 | S |
| CCS111 | 2006 Spring | Introduction to Chicana and Chicano Culture | | A study of Chicano popular culture, including cultural themes and artistic expression. Expression of the Chicano experience in American society from the perspective of the social sciences. Analyzes Chicano self-identity and social and cultural dynamics of the Chicano community | Prerequisites: None. | | Acad | LEC 3.0 3.0 3.0 | S |
| CCS202 | 2017 Spring | Ethnic Relations in the United States | AFR202 ASB202 | Basic concepts and processes, including historic overview, of interethnic relations in the United States: culture, race, ethnicity, ethnocentrism, prejudice, discrimination, racism, assimilation, acculturation, and individual and group responses to interethnic contact. Cultural knowledge and intercultural communication skills and perspectives as fundamental tools for successful management of social relations in a multicultural world. | Prerequisites: None. | Course Attribute(s): General Education Designation: Cultural Diversity - [C] General Education Designation: Historical Awareness - [H] General Education Designation: Social and Behavioral Sciences - [SB] | Acad | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| CCS212 | 2016 Spring | The Mexican American Novel | | A study of the social, historical, and cultural backgrounds as well as the form and content of the Mexican American novel. | Prerequisites: ENG101 and ENH112 suggested but not required. | | | LEC 3.0 3.0 3.0 | S |
| CCS282AA | 2000 Fall | Volunteerism for Chicana and Chicano Studies: A Service Learning Experience | | Service learning field experience within private/public agencies such as museums and libraries, and citizen volunteer groups. | Prerequisites: Permission of Instructor. | CCS282AA may be repeated for a total of six (6) credit hours. Standard grading available according to procedures outlined in catalog. | Acad | LAB 1.0 1.0 0.0 | L |
| CCS298AA | 2023 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. | Prerequisites: Permission of Program Director or Instructor. | Acad | Acad | LAB 1.0 1.0 0.0 | Z |
| CCS298AB | 2023 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. | Prerequisites: Permission of Program Director or Instructor. | | Acad | LAB 2.0 2.0 0.0 | Z |
| CCS298AC | 2023 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by | Prerequisites: Permission of Program Director or Instructor. | | Acad | LAB 3.0 3.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. | | | | | |
| CET102 | 2018 Fall | Surveying II | | Surveying principles including triangulation, municiple and land surveys, topographic surveys, earthwork, state plane coordinate systems, stadia methods, practical astronomy, highway curves, superelevations and construction. | Prerequisites: A grade of C or better in CON241 or permission of Department or Division. | | | LEC 3.0 2.0 2.0 LAB 0.0 3.0 3.0 | T |
| CET103 | 1996 Spring | Construction Methods | | Modern construction techniques: planning methods, critical path method (CPM), excavation and earthmoving practices, estimating and work scheduling, concrete design and placement practices. Includes reinforced concrete, prestressed concrete, carpentry, asphalt characteristics, proper proportioning of aggregate and important safety methods. Introduction to heavy construction equipment use | Prerequisites: None. | Occ | Occ | LEC 3.0 3.0 3.0 | S |
| CET104 | 1997 Spring | Community Planning and Development | | Provides a comprehensive overview of the urban planning and development process. Introduces planning theories, methodologies, and strategies with practical applications from local and other urban communities. Topics include municipal planning, land use and zoning, circulation, water and waste water management, storm drainage and public | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | utility services. Examines the economic development process, environmental and legal issues and focuses on the interdependent nature of development | | | | | |
| CET105 | 1996 Summer I | Highway Technology | | Economics of highway locations, rights-of-way, curves, drainage problems, bridge structures, road building equipment, highway financing, and administrative problems at the state, county and city levels | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| CET150 | 2004 Spring | Introduction to Geodesy and Map Projections | | Coordinate frames used in geodesy, photogrammetry, surveying, and mapping. Cartesian, spherical, and ellipsoidal coordinates. Introduction to kinematics, gravity field, and size and shape of earth. Positioning in three dimensions. Introduction to map projections and associated coordinate systems. Theory and application of the plane coordinate systems with emphasis on Arizona. Development of projections from Global Positioning System (GPS) observations. | Prerequisites: A grade of C or better in (CET102 and MAT182) or permission of Department or Division. | Occ | | LEC 3.0 3.0 3.0 | S |
| CET171 | 1996 Spring | Construction Contracts | | Legal aspects of construction contracts, writing and interpretation of specifications, prequalifications, and use of performance bonds | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| CET201 | 2018 Fall | Boundary Control and Legal Principles | | Principles of land surveying, boundary controls, ethical and legal principles, and office practices. | Prerequisites: A grade of C or better in CON241 or permission of Department or Division. | | | LEC 3.0 3.0 3.0 | S |
| CET202 | 2018 Fall | Writing Legal Descriptions | | Application of principles to actual case studies. Emphasis on proper form and clarity in legal description writing. | Prerequisites: A grade of C or better in CON241 or permission | | | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Procedure for filing subdivision plats and preparation for land surveyors' registration examinations. | of Department or Division. | | | | |
| CET205 | 2004 Spring | Photogrammetry | | An introduction to the study of aerial cameras, equipment, flight procedures, and interpretation of aerial photographs, including stereoscopic principles used in planimetric and topographic maps, map projections, grids, and forms. Practical applications of principles stressed | Prerequisites: A grade of C or better in CET102 or permission of Department or Division. | | | LEC 3.0 3.0 3.0 | S |
| CET211 | 2000 Fall | Strength of Materials | | A study of strength and application of the materials of engineering construction, including the mechanics of beams, shafts, and bolted and welded connections under various loading conditions. | Prerequisites: A grade of C or better in DFT107 or ELT102 or (MAT151 and MAT182) or MAT187 or equivalent or permission of Department or Division. | Occ | | LEC 3.0 3.0 3.0 | S |
| CET241 | 2010 Fall | Fundamentals of Traffic Engineering | | Basic study of traffic movement, ordinances, mechanical controls, planning, street and highway design, parking, and traffic engineering organization. Training for personnel as civil engineer technicians. | Prerequisites: None. | Occ | Occ | LEC 3.0 3.0 3.0 | S |
| CET250 | 2004 Spring | Public Land Survey System | | Overview of unique requirements to determine land boundaries according to the Manual of Instructions for the Survey of Public Lands of the United States, including history of the system, lotted sections, proportioning, subdividing, and evidence analysis. Emphasis on rules in order to perform any boundary survey, particularly for Arizona | Prerequisites: A grade of C or better in CET102 and CET201. | | | LEC 3.0 3.0 3.0 | S |
| CET257 | 2018 Fall | Route and Construction Surveying | | Principles and field practice of route and construction surveying, including route control surveys, construction | Prerequisites: A grade of C or better in CET102 or permission | Occ | | L+L 3.0 5.0 5.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | control, topographic mapping, highway curves, and computations for roadways, utilities, bridges, buildings, small commercial sites, and subdivisions | of Department or Division. | | | | |
| CET296WA | 2002 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor. | | Occ | LAB 1.0 5.0 0.0 | Z |
| CET296WB | 2002 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor. | | Occ | LAB 2.0 10.0 0.0 | Z |
| CET296WC | 2002 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 | | | LAB 3.0 15.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | related to the career objectives of the students. COMMON COMPETENCY COURSE | grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor. | | | | |
| CET296WD | 2002 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor. | | Occ | LAB 4.0 20.0 0.0 | Z |
| CET298AA | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student | Prerequisites: Permission of Program Director or Instructor. | | Occ | LAB 1.0 1.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | development. COMMON COMPETENCY COURSE | | | | | |
| CET298AB | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | Prerequisites: Permission of Program Director or Instructor. | | Occ | LAB 2.0 2.0 0.0 | Z |
| CET298AC | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | Prerequisites: Permission of Program Director or Instructor. | | Occ | LAB 3.0 3.0 0.0 | Z |
| CFS101AH | 2023 Fall | Art Activities for the Young Child | | The creative use of art media and techniques at appropriate developmental levels. | Prerequisites: None. | | Acad | LEC 1.0 1.0 1.0 | S |
| CFS101AJ | 2023 Fall | Music Activities for the Young Child | | Experiences with music in singing, rhythm instruments, creative movements, and games, as well as the development of music appreciation and basic listening skills. | Prerequisites: None. | | Acad | LEC 1.0 1.0 1.0 | S |
| CFS101AP | 2023 Fall | Science Activities for the Young Child | | Interpreting the study of science in early childhood | Prerequisites: None. | | Acad | LEC 1.0 1.0 1.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | education as a part of a dynamic growth process offered by the child's daily life experiences. | | | | | |
| CFS101AR | 2023 Fall | Learning With Toys | | Use of creative imagination with toys to enable the child alone or with others to explore the world. Includes evaluating proper use of toys and appropriate developmental skills. | Prerequisites: None. | | Acad | LEC 1.0 1.0 1.0 | S |
| CFS106 | 2023 Fall | Stress Management in the Family | | Impact of stress factors on the family. Managing time and stress in the home. Options for coping with anxiety. | Prerequisites: None. | | Acad | LEC 1.0 1.0 1.0 | S |
| CFS107 | 2023 Fall | Men and Children: Strengthening the Bond | | Overview of the relationship between fathers or significant male figures and children from the role perspective of the involved, nurturing male. Strategies for assessing and organizing successful male involvement programs examined. | Prerequisites: None. | | Acad | LEC 1.0 1.0 1.0 | S |
| CFS109 | 1988 Fall | Parent/Child Communication | | Communication between parents and children. Developing self-esteem, responsibility and empathic listening. Pitfalls to communication | Prerequisites: None. | | Acad | LEC 1.0 1.0 1.0 | S |
| CFS111 | 2023 Fall | Relationships to Promote Learning in Young Children: Birth to Age Three | | Overview of the relationship between the teacher/caregiver and child from the perspective of a reflective teacher. Students will learn the importance of assessing, understanding, and enhancing the development of emotional skills of young children to help guide and develop a child's self-image. Student will also be able to monitor, reflect, and plan self-care so they become effective teachers. | Prerequisites: None. CFS/ECH176 recommended. | Acad | | LEC 1.0 1.0 1.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| CFS112 | 2023 Fall | Personal Growth and Family Relations | | Personal development as related to the individual, the family, and their relations. Emphasis on interpersonal family relationships. Skills and techniques to facilitate and strengthen the individual and family relationships. | Prerequisites: None. | Course Attribute(s): General Education Designation: Social and Behavioral Sciences - [SB] | Acad | LEC 3.0 3.0 3.0 | S |
| CFS114 | 2023 Fall | Working with the Hyperactive Child | | Causes of hyperactivity in children; focus on the family's role in identification, treatment and school/community support. | Prerequisites: None. | | Acad | LEC 1.0 1.0 1.0 | S |
| CFS116 | 2023 Fall | Discipline and Guidance | | Age appropriate principles for disciplining and guiding young children's behavior in child care settings, including interpersonal and environmental strategies. Observational opportunities provided. | Prerequisites: None. | | Acad | LEC 3.0 3.0 3.0 | S |
| CFS120 | 2024 Fall | Contemporary Issues In Early Childhood | | Designed to develop understanding of a broad range of contemporary issues that impact the child in today's society. Course directed at pre-service and in-service professionals. | Prerequisites: None. | | Acad | LEC 1.0 1.0 1.0 | S |
| CFS121AA | 2023 Fall | Single Parent Family-Adjustment | | Overview of issues facing single parent families. Examination of adjustment issues with emphasis on relationships. Methods of adapting family life to meet the needs and variations of one-parent families. | Prerequisites: None. | | Acad | LEC 1.0 1.0 1.0 | S |
| CFS123 | 2023 Fall | Health and Nutrition In Early Childhood Settings | | Creating and maintaining healthy environments and practices in programs serving young children. Emphasis on assessing the child's health status, nutrition and food service, communicable disease recognition, transmission, and prevention, infection control, regulations | Prerequisites: None. | | Acad | LEC 1.0 1.0 1.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | and regulatory agencies, current topics, resources, and innovative practices. | | | | | |
| CFS125 | 2023 Fall | Safety in Early Childhood Settings | | Fundamental concepts of promoting a safe, but challenging learning environments. Establishing and maintaining safety procedures in the early childhood setting. Emphasis on indoor and outdoor equipment and activities, risk analysis, accident, evacuation, and emergency plans, regulations, regulatory agencies and resources, current topics, and innovative practices. | Prerequisites: None. | | Acad | LEC 1.0 1.0 1.0 | S |
| CFS130 | 2023 Fall | Demystifying Adolescence | | A holistic overview of the physical, social, and emotional development of adolescents. Emphasis on effective skills necessary for working with adolescents and their families. | Prerequisites: None. | | Acad | LEC 1.0 1.0 1.0 | S |
| CFS140 | 2002 Fall | Special Topics: Child and Family Studies | | Explores special topics related to child and family studies. Topics vary and include concepts relevant to those pursuing careers in or employed in early childhood care or to those working with families in programs, agencies, organizations, and resource centers that provide services to families. | Prerequisites: None. | CFS140 may be repeated for a total of two (2) credit hours with change of topic. | Acad | LEC 0.5 0.5 0.5 | S |
| CFS157 | 1995 Fall | Marriage and Family Life | | Study of marriage and the family as a social system, including models of family analysis, intra-and interpersonal relations, and cross-cultural and historical patterns | Prerequisites: None. | Course Attribute(s): General Education Designation: Social and Behavioral Sciences - [SB] | Acad | LEC 3.0 3.0 3.0 | S |
| CFS159 | 2001 Spring | The Modern Family | | An examination of the modern American family. Special emphasis on the changing functions and roles of | Prerequisites: None. | Course Attribute(s): General Education Designation: Social and Behavioral Sciences - [SB] | Acad | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | individuals within today's society and an analysis of the basic problems confronting the family, including alternative family styles | | | | | |
| CFS160 | 2023 Fall | Using Music, Speech, and Movement with Children's Literature | | Using elements of music, speech, and movement with children's literature, including rhymes, chants, songs, and books to enhance children's social, physical, cognitive, and emotional development. | Prerequisites: None. | | Acad | LEC 1.0 1.0 1.0 | S |
| CFS163 | 2009 Fall | Family Child Care: Introduction to Business Management | | Emphasis on small business management and effective policies and procedures for family child care providers. Licensing, legal, and regulatory issues in a home setting are examined | Prerequisites: None. | | Acad | LEC 3.0 3.0 3.0 | S |
| CFS164 | 2009 Fall | Family Child Care: Curriculum and Environment | | Family child care planning for multi-age groupings of children through age eight. Role of the environment as well as various curriculum programs will be explored and evaluated. Exploration of culturally rich, inclusive and child-centered environment in his/her own child care setting. Issues of professionalism, family partnerships, observation, guidance, and health/safety practices are examined | Prerequisites: None. | | Acad | LEC 3.0 3.0 3.0 | S |
| CFS164AA | 2009 Fall | Family Child Care: The Environment | | Family child care environments for multi-age groupings of children through age eight. Exploration of culturally rich, inclusive, and child-centered environment in his/her own child care setting. Issues of health/safety practices are examined | Prerequisites: None. | | Acad | LEC 1.0 1.0 1.0 | S |
| CFS164AB | 2009 Fall | Family Child Care: Programming, Guidance and Observation | | Family child care programming for multi-age groupings of children through | Prerequisites: None. | | Acad | LEC 1.0 1.0 1.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | age eight. Various curriculum programs will be explored and evaluated. Issues of observation and guidance are examined | | | | | |
| CFS164AC | 2009 Fall | Family Child Care: Family Partnerships and Professionalism | | Issues of professionalism, family partnerships, communication, and ethical practices are examined | Prerequisites: None. | | Acad | LEC 1.0 1.0 1.0 | S |
| CFS167 | 2023 Fall | School-Age Child Care Provider | | Issues related to school-age child care. Past, current, and future trends; regulations, insurance liabilities and coverage, shared facilities, and community resources. Techniques for managing/administering services and personnel, communicating with parents, and evaluating the care/program. Planning and scheduling the school-age program. Includes overview of child growth and development, types of routines and activity schedules. | Prerequisites: None. | | Acad | LEC 3.0 3.0 3.0 | S |
| CFS176 | 2023 Fall | Child Development | ECH176 | Study of the science of human development from conception through adolescence. Includes observation skills, parent and adult roles in the lives of children, and contemporary issues. | Prerequisites: None. | Course Attribute(s): General Education Designation: Social and Behavioral Sciences - [SB] | Acad | LEC 3.0 3.0 3.0 | S |
| CFS177 | 1988 Fall | Parent-Child Interaction | | Positive methods to strengthen relationships and resolve conflicts with children. Focus on effective interpersonal skills and guidance techniques | Prerequisites: None. | | Acad | LEC 3.0 3.0 3.0 | S |
| CFS178 | 2023 Fall | Survey of Early Childhood Education | | Orientation to basic concepts of day care and nursery programs. History and philosophy of child care services including state regulations governing those | Prerequisites: None. | | Acad | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | services. Observation opportunities provided. | | | | | |
| CFS179 | 1988 Fall | Child Care: A Multifaceted Career | | Overview of the child care field. Focus on enhancing children's self esteem, providing for children's nutritional needs, and developing adequate safety and sanitation practices | Prerequisites: None. | | Acad | LEC 1.0 1.0 1.0 | S |
| CFS181 | 2023 Fall | Enhancing Infant and Toddler Development | | Principles of development in children from birth through 30 months. Emphasis on individuality of child and the adult role in providing a safe and stimulating environment for the development of the child. | Prerequisites: None. | | Acad | LEC 3.0 3.0 3.0 | S |
| CFS182 | 2023 Fall | Parenting the Early Adolescent: Ages Ten to Fourteen | | Emphasis on the early adolescent developmental period, ages ten to fourteen, and the importance of the parent-child relationship, as well as strategies to ensure successful teen years. | Prerequisites: None. | | Acad | LEC 1.0 1.0 1.0 | S |
| CFS183 | 2023 Fall | Contemporary Issues in Adolescence | | Current issues that impact adolescent development and behavior explored. Comprehensive and specific strategies for addressing these issues as parents or professionals working with teens emphasized. Issues related to adolescent sexuality, abuse, mental health, violence, and risk behaviors included. | Prerequisites: None. | | Acad | LEC 3.0 3.0 3.0 | S |
| CFS190 | 2023 Fall | Home-Based Visitation | | Emphasis on development of skills needed to successfully complete home-based client visitation. Opportunities for field-based observations provided. | Prerequisites: None. | | Acad | L+L 3.0 4.0 4.0 | T |
| CFS192 | 2023 Fall | Child Care Center Staff Development | | Presents strategies to administrators and supervisors in child care centers for developing the | Prerequisites: None. | | Acad | LEC 1.0 1.0 1.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | personal and professional growth of child care staff. | | | | | |
| CFS193 | 2023 Fall | Financial Management in Child Care Centers | | Provides strategies for financial management and administration of finances in a child care center. Specific concerns of participants addressed. | Prerequisites: None. | | Acad | LEC 1.0 1.0 1.0 | S |
| CFS194AA | 2023 Fall | Early Childhood Program Management: Staffing and Managing | | Methods and techniques for recruiting, staffing, and managing in early childhood programs. | Prerequisites: None. | | Acad | LEC 1.0 1.0 1.0 | S |
| CFS194AB | 2023 Fall | Early Childhood Program Management: Human Relations | | Basic human relations in early childhood organizations and the influence of the individual's personal needs on the overall needs and objectives of the organization. | Prerequisites: None. | | Acad | LEC 1.0 1.0 1.0 | S |
| CFS194AC | 2023 Fall | Early Childhood Program Management: Organizational Structure | | Provides a broad perspective of the organizational life of an early childhood environment. | Prerequisites: None. | | Acad | LEC 1.0 1.0 1.0 | S |
| CFS195 | 2023 Fall | Early Childhood Personnel Supervision | | Covers supervision concepts and applications for early childhood programs. | Prerequisites: None. | | Acad | LEC 1.0 1.0 1.0 | S |
| CFS196 | 2023 Fall | Ethics and the Early Childhood Educator | | Ethical issues in the early childhood field. | Prerequisites: None. | | Acad | LEC 1.0 1.0 1.0 | S |
| CFS197 | 2023 Fall | Leadership in Early Childhood Education | | Provides concepts for understanding and managing leadership roles and responsibilities in the early childhood field. | Prerequisites: None. | | Acad | LEC 1.0 1.0 1.0 | S |
| CFS204 | 2023 Fall | Reflective Supervision | | Reflective supervisory processes to enhance learning and professional development. Includes professional development stages to provide supervisors with tools to support professional growth. Also covers challenges and barriers to the supervisor and employee/practitioner relationship. | Prerequisites: None. | | Acad | LEC 1.0 1.0 1.0 | S |
| CFS205 | 2023 Fall | Human Development | | Explores the growth and development process over the human life span. Research | Prerequisites: None. | Course Attribute(s): General Education Designation: Social and Behavioral Sciences - [SB] | Acad | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | and theoretical approaches; physical, cognitive, social, and personality development from birth through adulthood and death. | | | | | |
| CFS206 | 2023 Fall | Child and Family Organizations: Management and Administration | | Examination of management and administration of community- based child and family organizations within the context of organizational behaviors. Focus on attributes of effective organizations: the impact of organizational culture and learning, work-place diversity and employee motivation. | 12-13-2022 | | Acad | LEC 3.0 3.0 3.0 | S |
| CFS207 | 2023 Fall | Organization and Community Leadership in Child and Family Organizations | | Examination of organization and community leadership as it applies to the management and administration of community- based child and family services organizations. Provides overview of leadership styles and function. | Prerequisites: None. | | Acad | LEC 3.0 3.0 3.0 | S |
| CFS208 | 2023 Fall | Child and Family Organizations: Fiscal Management and Grant Writing | | Examination of fiscal accountability and resource development as it applies to the management and administration of community-based child and family social service organizations. Provides overview of grant development processes beginning with research into governmental and private funding sources through fiscal and grant audit processes. Includes budget development, risk management, and cost control issues. | Prerequisites: None. | | Acad | LEC 3.0 3.0 3.0 | S |
| CFS209 | 2023 Fall | Child and Family Organizations: Project Management | | Focuses on concepts and strategies associated with effective project management in community-based child and family organizations. Emphasis on planning, | Prerequisites: None. | | Acad | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | evaluation and project management models. | | | | | |
| CFS210 | 2005 Spring | Family Life Education | | Provides an overview of the professional work within the field of family life education. Emphasis on developing flexible, culturally sensitive and effective professional skills | Prerequisites: None. | | Acad | LEC 3.0 3.0 3.0 | S |
| CFS220 | 2004 Spring | Introduction to Parenting and Family Development | | Overview of the field of family and parent development. Focuses on parenthood as a developmental process and cultural influences on child rearing. A family systems perspective introduced and applied to understanding families with children | Prerequisites: None. | | Acad | LEC 3.0 3.0 3.0 | S |
| CFS225 | 2011 Summer II | Foundations of Parent Education | | Professional development as related to work with parents. Emphasis on developing effective skills with parents, professionals and paraprofessionals involved with the child. Skills and techniques to facilitate and strengthen the individual and family relationships. | Prerequisites: None. | | Acad | LEC 3.0 3.0 3.0 | S |
| CFS235 | 2023 Fall | Developing Child: Theory into Practice, Prenatal to Age Eight | | Understanding and working with young children, birth through age eight. Analysis of young children's physical, social, emotional, cognitive and linguistic development within their home, school, and cultural contexts. Typical and atypical development. Implications for teachers and parents. Emphasis on observations and planning curriculum based on theories, research, and child-specific data. | Prerequisites: None. | Course Attribute(s): General Education Designation: Social and Behavioral Sciences - [SB] | Acad | LEC 3.0 3.0 3.0 | S |
| CFS240 | 2023 Fall | Human Behavior in Context | | Considers the influences of physical and social environments in which human | Prerequisites: None. | | Acad | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | behavior occurs. Includes multiple roles and perspectives of the individual, the family, society and the professional. | | | | | |
| CFS242 | 2023 Fall | Curriculum Planning for Diversity | | Practical early childhood classroom applications for a diverse population, including integration of cultures, generations, genders, and races into the classroom, facilitation of second language acquisition, and practical teaching strategies which are also developmentally appropriate. | Prerequisites: A grade of C or better in CFS/ECH176. | Course Attribute(s): General Education Designation: Cultural Diversity - [C] | Acad | LEC 3.0 3.0 3.0 | S |
| CFS243 | 2004 Spring | Cross-Cultural Parenting | | Focus on the study of parents and children from a cross-cultural position. Emphasis on parenting styles and practices from a cultural directive and expectation perspective. Course designed for those seeking careers in Family Studies, Parent Education, Psychology, Social Work/Human Services | Prerequisites: None. | | Acad | LEC 3.0 3.0 3.0 | S |
| CFS247 | 2004 Spring | Family Ties and Aging | | Identification and examination of facets of family relationships and aging. Emphasis on study of central family connections for older people, unique family situations, and implications of family transitions. Course designed for those seeking careers in Family Studies, Parent Education, Psychology, Social Work/Human Services | Prerequisites: None. | | Acad | LEC 3.0 3.0 3.0 | S |
| CFS249 | 2004 Spring | Transition to Adulthood | | Emphasis on major elements of the transition to adulthood and key links to changes in family relationships. Focus on the realignment of intergenerational relationships | Prerequisites: None. | | Acad | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | and reassessment of family priorities. Course designed for those seeking careers in Family Studies, Parent Education, Psychology, Social Work/Human Services | | | | | |
| CFS250 | 2023 Fall | Social Policy and Families | | Examines the impact of social policy on family systems and the implications for professional roles and practice. | Prerequisites: None. | | Acad | LEC 3.0 3.0 3.0 | S |
| CFS251 | 2023 Fall | Transitions: Work to Retirement | | Explores the work to retirement transitional issues that impact individuals and families. Emphasis on physical, cognitive and psychosocial dimensions of retirement. | Prerequisites: None. | | Acad | LEC 3.0 3.0 3.0 | S |
| CFS252 | 2023 Fall | Contemporary Issues in Aging | | Current issues that impact aging development and behavior explored. Comprehensive and specific strategies for addressing these issues for professionals working with aging adults emphasized. | Prerequisites: None. | | Acad | LEC 3.0 3.0 3.0 | S |
| CFS256 | 1996 Spring | Management in the Family | | Management as a means to the realization of individual and family values and goals; creation, allocation, and use of resources. Focus on decision making | Prerequisites: None. | | Acad | LEC 3.0 3.0 3.0 | S |
| CFS257 | 2023 Fall | Working with Families with Diverse Needs | | A collaborative approach to working with families with diverse needs. Examines the effect of specific challenges on the family system. Presents techniques for those working with families to facilitate stress management, conflict resolution, and utilization of community and personal resources to aid in the strengthening of the family unit. | Prerequisites: None. | | Acad | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| CFS258 | 2004 Spring | Families in Society | | Areas of concentration include family transition, diversity in structure and culture faced by contemporary families, problems, crisis and change affecting the stress on families as our society progresses into a more complicated future. The study of change as an integral part of all family's day-to-day experiences while recognizing that family ancestral and cultural dimensions are fundamental for all family groupings. Course designed for those seeking careers in Family Studies, Parent Education, Psychology, Social Work/Human Services | Prerequisites: A grade of C or better in CFS157 and CFS259 or permission of Instructor. | | Acad | LEC 3.0 3.0 3.0 | S |
| CFS259 | 1997 Fall | Sexuality over the Life Span | | Examination of the physical, psychological, social, and cultural contributions to human sexuality. Emphasis on family life and cultural variation. Examination of facts and myths, current literature, and changing mores regarding human sexuality. Sexuality of males and females in contemporary society; impact of sexual trends on society; home/school issues in sexuality education. | Prerequisites: Permission of Department or Division. Student must be 18 years or older. | Course Attribute(s): General Education Designation: Social and Behavioral Sciences - [SB] | Acad | LEC 3.0 3.0 3.0 | S |
| CFS263 | 2023 Fall | Child and Family Studies Seminar | | Classroom portion of Child and Family Studies Internship. Emphasizes the blend of job-related activities including career exploration, employment procedures, human relations, and on-the-job problems. | Prerequisites: Permission of Department or Division. Corequisites: CFS264AA or CFS264AB or CFS264AC initial enrollment in internship module. | | Acad | LEC 1.0 1.0 1.0 | S |
| CFS264AA | 2023 Fall | Child and Family Studies Internship | | Laboratory portion of Child and Family Studies Seminar. Five hours of work weekly. | Prerequisites: Permission of Department or Division | CFS264AA may be repeated for a total of six (6) credit hours. | Acad | LAB 1.0 5.0 0.0 | C |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Supervision and evaluation by a coordinator. | Corequisites: CFS263 when initially enrolled in CFS264AA or CFS264AB or CFS264AC module. | | | | |
| CFS264AB | 2023 Fall | Child and Family Studies Internship | | Laboratory portion of Child and Family Studies Seminar. Ten hours of work weekly. Supervision and evaluation by a coordinator. | Prerequisites: Permission of Department or Division Corequisites: CFS263 when initially enrolled in CFS264AA or CFS264AB or CFS264AC module. | CFS264AB may be repeated for a total of six (6) credit hours. | Acad | LAB 2.0 10.0 0.0 | C |
| CFS264AC | 2023 Fall | Child and Family Studies Internship | | Laboratory portion of Child and Family Studies Seminar. Fifteen hours of work weekly. Supervision and evaluation by a coordinator. | Prerequisites: Permission of Department or Division Corequisites: CFS263 when initially enrolled in CFS264AA or CFS264AB or CFS264AC module. | CFS264AC may be repeated for a total of six (6) credit hours. | Acad | LAB 3.0 15.0 0.0 | C |
| CFS269 | 2023 Fall | Child Care Seminar | ECH269 | Emphasizes the blend of job-related activities including career exploration, employment procedures, human relations, and on-the-job issues. | Prerequisites: Permission of Department or Division. | CFS/ECH269 may be repeated for a total of three (3) credit hours. | Acad | LEC 1.0 1.0 1.0 | S |
| CFS271 | 2023 Fall | Arranging the Environment | ECH271 | Exploration of the influence of the environment on the behavior of young children. Indoor and outdoor spaces considered and analysis of environments practiced. | Prerequisites: None. | | Acad | LEC 1.0 1.0 1.0 | S |
| CFS273 | 2023 Fall | Math for the Young Child | ECH273 | Methods and techniques for encouraging the beginnings of mathematical/logical thought with young children. Focus upon the theory of Jean Piaget. | Prerequisites: None. | | Acad | LEC 1.0 1.0 1.0 | S |
| CFS275 | 2023 Fall | Literacy Development and the Young Child | ECH275 | Literacy from birth through the early childhood years. Focus on developmentally appropriate ways to encourage speaking, listening, writing, and reading in the home and classroom. | Prerequisites: None. | | Acad | LEC 1.0 1.0 1.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| CFS277 | 2023 Fall | Adult-Adolescent Interaction | | Prepares social service workers, teachers, and parents to interact effectively with teenagers. Develops understanding of the interaction between adolescents and their families. Teaches practical strategies to deal with specific problem areas. | Prerequisites: None. | | Acad | LEC 3.0 3.0 3.0 | S |
| CFS281 | 2023 Fall | Adolescent School Success | | An overview of factors that contribute to adolescent school success, including family-school interactions, special needs adolescents, and problem areas. Emphasis on strategies and resources to facilitate school success. | Prerequisites: None. | | Acad | LEC 1.0 1.0 1.0 | S |
| CFS282 | 2023 Fall | Mainstreaming The Young Child with A Disability | | An exploration of the educational, social, and behavioral issues and concerns involved in the successful integration of children with disabilities into typical preschool classes. Includes discussion of practical concerns such as adaptation of environment and accessing existing resources in the community. | Prerequisites: None. | | Acad | LEC 1.0 1.0 1.0 | S |
| CFS283 | 2023 Fall | Multicultural Early Child Education | | Practical early childhood classroom applications for a diverse ethnic population, including integration of multiculturalism into the classroom, facilitation of second language acquisition, and practical teaching strategies which are also developmentally appropriate. | Prerequisites: A grade of C or better in CFS/ECH176. | | | LEC 1.0 1.0 1.0 | S |
| CFS284AA | 2023 Fall | Early Childhood Teaching Internship | ECH284AA | Work experience in child care centers. 80 hours of designated work per credit. | Prerequisites: A grade of C or better in CFS/ECH176 and permission of Department or Division. | CFS/ECH284AA may be repeated for a total of six (6) credit hours.<br>Acad | Acad | L+L 1.0 1.0 0.0 | C |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| CFS284AB | 2023 Fall | Early Childhood Teaching Internship | ECH284AB | Work experience in child care centers. 80 hours of designated work per credit. Maximum of 6 credits allowed. | Prerequisites: A grade of C or better in CFS/ECH176 and permission of department. Corequisites: CFS/ECH269. | | | L+L 3.0 3.0 3.0 | T |
| CFS285 | 2023 Fall | Family-School Interaction | | Interaction among parents, teachers and the school. Emphasis on methods used cooperatively by parents and teachers to provide for education and developmental needs. | Prerequisites: A grade of C or better in CFS/ECH176 or CFS278 or permission of Instructor. | Acad | Acad | LEC 3.0 3.0 3.0 | S |
| CFS285AA | 2023 Fall | Family-School Interaction: Preschool | | Interaction among parents, teachers and the preschool. Emphasis on methods used cooperatively by parents and preschool teachers to provide for education and developmental needs. | Prerequisites: A grade of C or better in CFS/ECH176 or CFS278 or permission of Instructor. | | Acad | LEC 1.0 1.0 1.0 | S |
| CFS287 | 2023 Fall | Professional Development in Early Childhood Education | ECH287 | Emerging professionalism within the field of early childhood education. Consideration of job responsibilities, rewards, ethics and current issues facing practitioners. Includes assessment and career planning. | Prerequisites: None. | | Acad | LEC 1.0 1.0 1.0 | S |
| CFS290AA | 2023 Fall | Child Abuse: Identification and Reporting in Child Care Settings | | Identification, recording, and reporting by child care providers of sexual abuse, physical abuse, or neglect of young children. | Prerequisites: None. | | Acad | LEC 1.0 1.0 1.0 | S |
| CHA104 | 2010 Fall | Community Health Work | | Preparation of Community Health workers for outreach health prevention, advocacy, education, referral, and intervention working with individuals, communities and families. Includes history of community health work programs, community systems, and resources for | Prerequisites: None. | A minimum of 30 hours of service learning experience in a community-based setting involving interacting with various agencies within the community, managing home visits, dealing with challenging situations, and empowering and mobilizing for action. | Occ | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | clients and families often in disparity. | | | | | |
| CHI101 | 2018 Fall | Elementary Chinese (Mandarin) I | | Introduction to the basic grammar, pronunciation and vocabulary of the Mandarin Chinese language. Includes the study of Chinese culture, practice of listening, speaking, reading, and writing skills | Prerequisites: None. | General Education Designation: Global Awareness - [G] Arizona Shared Unique Number SUN#: CHI 1101 | Acad | L+L 5.0 6.0 6.0 | T |
| CHI102 | 2018 Fall | Elementary Chinese (Mandarin) II | | Study of grammar and vocabulary along with the study of Chinese culture. Emphasis on pronunciation and speaking skills. | Prerequisites: A grade of C or better in CHI101 or permission of Department or Division. Completion of prerequisites within the last three years is required. | General Education Designation: Global Awareness - [G] Arizona Shared Unique Number SUN#: CHI 1102 | Acad | L+L 5.0 6.0 6.0 | T |
| CHI115 | 1995 Spring | Beginning Chinese Conversation I | | Introduction to Chinese sound system, basic grammar, and vocabulary necessary to develop speaking ability in Mandarin Chinese. Designed for students seeking speaking and listening ability with little emphasis on writing and reading Chinese characters | Prerequisites: None. | | Acad | LEC 3.0 3.0 3.0 | S |
| CHI116 | 2014 Fall | Beginning Chinese Conversation II | | Continued development of speaking and listening skills for effective communication in Mandarin Chinese. Includes elements of Chinese culture | Prerequisites: A grade of C or better in CHI115 or permission of Department or Division. Completion of prerequisites within the last three years is required. | | | LEC 3.0 3.0 3.0 | S |
| CHI201 | 2018 Fall | Intermediate Chinese I | | Continued development of speaking, reading, and writing proficiency in Mandarin Chinese through building vocabulary, phrases, idioms, and grammatical patterns. Includes study of Chinese culture | Prerequisites: A grade of C or better in CHI102 or permission of Department or Division. Completion of prerequisites within the last three years is required. | General Education Designation: Global Awareness - [G] Arizona Shared Unique Number SUN#: CHI 2201<br><br>Acad | Acad | L+L 5.0 6.0 6.0 | T |
| CHI202 | 2018 Fall | Intermediate Chinese II | | Advanced development of speaking, reading, and writing skills in Mandarin Chinese, | Prerequisites: A grade of C or better in CHI201 or permission of Department or Division. | General Education Designation: Global Awareness - [G] Arizona Shared Unique Number SUN#: CHI 2202 | Acad | L+L 5.0 6.0 6.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | and continued exploration of Chinese culture | Completion of prerequisites within the last three years is required. | | | | |
| CHI225 | 2014 Fall | Intermediate Chinese Conversation I | | Continued development of oral and aural skills for effective communication in Mandarin Chinese | Prerequisites: A grade of C or better in CHI116 or permission of Department or Division. Completion of prerequisites within the last three years is required. | | | LEC 3.0 3.0 3.0 | S |
| CHI226 | 2014 Fall | Intermediate Chinese Conversation II | | A continuation of conversational skills for effective communication in Mandarin Chinese | Prerequisites: A grade of C or better in CHI225 or permission of Department or Division. Completion of prerequisites within the last three years is required. | Acad | | LEC 3.0 3.0 3.0 | S |
| CHI296WA | 2023 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. | Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor. | Acad | Acad | LAB 1.0 5.0 0.0 | Z |
| CHI296WB | 2023 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. | Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) | | Acad | LAB 2.0 10.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor. | | | | |
| CHI296WC | 2023 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. | Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor. | Acad | | LAB 3.0 15.0 0.0 | Z |
| CHI296WD | 2023 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. | Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor. | Acad | | LAB 4.0 20.0 0.0 | Z |
| CHI298AA | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of | Prerequisites: Permission of Program Director or Instructor. | | | LAB 1.0 1.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | | | | | |
| CHI298AB | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | Prerequisites: Permission of Program Director or Instructor. | | Acad | LAB 2.0 2.0 0.0 | Z |
| CHI298AC | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | Prerequisites: Permission of Program Director or Instructor. | | Acad | LAB 3.0 3.0 0.0 | Z |
| CHM100 | 2021 Fall | Preparation for Fundamental Chemistry | | A preparatory course designed to review | Prerequisites: None. | | Acad | LEC 1.0 1.0 1.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | fundamental math and chemistry principles for students inexperienced or insecure with these concepts. Stresses individualized instruction. Designed to prepare students for CHM130. | | | | | |
| CHM107 | 2023 Fall | Chemistry and Society | | A survey of chemistry and its impact on society and the environment. | Prerequisites: None. | | Acad | LEC 3.0 3.0 3.0 | S |
| CHM107LL | 2018 Fall | Chemistry and Society Laboratory | | Laboratory experience in support of CHM107. | Prerequisites: A grade of C or better in CHM107 or Corequisites: CHM107. | General Education Designation: Natural Sciences (Quantitative) - [SQ] in combination with: CHM107 | Acad | LAB 1.0 3.0 3.0 | T |
| CHM130 | 2024 Fall | Fundamental Chemistry | | A survey of the fundamentals of general chemistry. Emphasis on essential concepts and problem solving techniques. Basic principles of measurement, chemical bonding, structure and reactions, nomenclature, and the chemistry of acids and bases. Preparation for students taking more advanced courses in chemistry. | Prerequisites: A grade of C or better in [(CHM100, or high school algebra, or MAT140 or higher, or an EdReady score of 70 or higher) and (RDG100, or RDG100LL, or higher, or eligibility for CRE101 as indicated by appropriate reading placement)], or permission of the Instructor, or Department or Division Chair. | Students may receive credit for only one of the following: CHM130 and CHM130LL, or CHM130AA. Course Attribute(s): General Education Designation: Natural Sciences (Quantitative) - [SQ] in combination with: CHM130LL Arizona Shared Unique Number SUN# CHM 1130 in combination with: CHM130LL | Acad | LEC 3.0 3.0 3.0 | S |
| CHM130AA | 2024 Fall | Fundamental Chemistry with Lab | | A survey of the fundamentals of general chemistry. Emphasis on essential concepts and problem solving techniques. Basic principles of measurement, chemical bonding, structure and reactions, nomenclature, and the chemistry of acids and bases. Preparation for students taking more advanced courses in chemistry. | Prerequisites: A grade of C or better in [(CHM100, or high school algebra, or MAT140 or higher, or an EdReady score of 70 or higher) and (RDG100, or RDG100LL, or higher, or eligibility for CRE101 as indicated by appropriate reading placement)], or permission of the Instructor, or | Student may receive credit for only one of the following: CHM130 and CHM130LL, or CHM130AA. Course Attribute(s): General Education Designation: Natural Sciences (Quantitative) - [SQ] | Acad | LEC 4.0 3.0 3.0 LAB 0.0 3.0 3.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | Department or Division Chair. | | | | |
| CHM130LL | 2024 Fall | Fundamental Chemistry Laboratory | | Laboratory experience in support of CHM130. | A grade of C or better required in all Prerequisites. Prerequisites or Corequisites: CHM130. | Students may receive credit for only one of the following: CHM130 and CHM130LL, or CHM130AA. Course Attribute(s): Natural Sciences (Quantitative) - [SQ] in combination with: CHM130 Arizona Shared Unique Number SUN# CHM 1130 in combination with: CHM130 | Acad | LAB 1.0 3.0 3.0 | T |
| CHM138 | 2021 Fall | Chemistry for Allied Health | | Elements of fundamental and organic chemistry. Includes the general chemical behavior of inorganic matter and the structure of organic and biochemical systems. Course designed for specific allied health programs at MCCD. May not be applicable to other allied health programs or transferable. | Prerequisites: A grade of C or better in [CHM100 or MAT090 or MAT091 or MAT092 or (MAT103AA and MAT103AB) or higher or satisfactory score on math placement exam], or one year of high school chemistry taken within the last five years with a grade of C or better, or permission of the Instructor, or Department or Division Chair. | Acad | | LEC 3.0 3.0 3.0 | S |
| CHM138LL | 2018 Fall | Chemistry for Allied Health Laboratory | | Laboratory experience in support of CHM138, Chemistry for Allied Health. | Prerequisites: None. Corequisites: CHM138. | | Acad | LAB 1.0 3.0 3.0 | T |
| CHM140AA | 2023 Fall | General Chemistry for Engineers with Lab | | Generalized study of the principles of chemistry as they relate to fields of engineering. | Prerequisites: A grade of C or better in [(CHM130 and CHM130LL), or CHM130AA, or one year of high school chemistry taken within the last five years] and (a grade of C or better in MAT151 or higher level mathematics course, or satisfactory placement), or permission of Instructor, or Department or | Acad | | L+L 6.0 9.0 9.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | Division Chair. Completion of prerequisites within the last two years is recommended. | | | | |
| CHM150 | 2024 Fall | General Chemistry I | | Detailed study of principles of chemistry for science majors and students in pre-professional curricula. | Prerequisites: A grade of C or better in [(CHM130 and CHM130LL), or CHM130AA, or one year of high school chemistry taken within the last five years] and (a grade of C or better in MAT151 or higher level mathematics course, or satisfactory placement), or permission of the Instructor, or Department or Division Chair. | Completion of all prerequisites within the last two years is recommended. Student may receive credit for only one of the following: CHM150 and CHM151LL, or CHM151 and CHM151LL, or CHM150AA, or CHM151AA. Course Attribute(s): General Education Designation: Natural Sciences (Quantitative) - [SQ] in combination with: CHM151LL | Acad | LEC 4.0 4.0 4.0 | S |
| CHM150AA | 2024 Fall | General Chemistry I with Lab | | Detailed study of principles of chemistry for science majors and students in pre-professional curricula. | Prerequisites: A grade of C or better in [(CHM130 and CHM130LL), or CHM130AA, or one year of high school chemistry taken within the last five years] and (a grade of C or better in MAT151 or higher level mathematics course, or satisfactory placement), or permission of the Instructor, or Department or Division Chair. | Completion of all prerequisites within the last two years is recommended. Student may receive credit for only one of the following: CHM150 and CHM151LL, or CHM151 and CHM151LL, or CHM150AA, or CHM151AA. Course Attribute(s): General Education Designation: Natural Sciences (Quantitative) - [SQ] | Acad | LEC 5.0 4.0 4.0 LAB 0.0 3.0 3.0 | T |
| CHM151 | 2024 Fall | General Chemistry I | | Detailed study of principles of chemistry for science majors and students in pre-professional curricula. | Prerequisites: A grade of C or better in [(CHM130 and CHM130LL), or CHM130AA, or one year of high school chemistry taken within | Completion of all prerequisites within the last two years is recommended. Students may receive credit for only one of the following: CHM150 and CHM151LL, or CHM151 and CHM151LL, or CHM150AA, or | Acad | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | the last five years] and (a grade of C or better in MAT151 or higher level mathematics course, or satisfactory placement), or permission of the Instructor, or Department or Division Chair. | CHM151AA. Course Attribute(s): General Education Designation: Natural Sciences (Quantitative) - [SQ] in combination with: CHM151LL Arizona Shared Unique Number SUN# CHM 1151 in combination with: CHM151LL | | | |
| CHM151AA | 2024 Fall | General Chemistry I with Lab | | Detailed study of principles of chemistry for science majors and students in pre-professional curricula. | Prerequisites: A grade of C or better in [(CHM130 and CHM130LL), or CHM130AA, or one year of high school chemistry taken within the last five years] and (a grade of C or better in MAT151 or higher level mathematics course, or satisfactory placement), or permission of the Instructor, or Department or Division Chair. | Completion of all prerequisites within the last two years is recommended. Student may receive credit for only one of the following: CHM150 and CHM151LL, or CHM151 and CHM151LL, or CHM150AA, or CHM151AA. Course Attribute(s): General Education Designation: Natural Sciences (Quantitative) - [SQ] | Acad | LEC 4.0 3.0 3.0 LAB 0.0 3.0 3.0 | T |
| CHM151LL | 2024 Fall | General Chemistry I Laboratory | | Laboratory experience in support of CHM150 or CHM151. | A grade of C or better required in all Prerequisites. Prerequisites or Corequisites: CHM150 or CHM151. | Student may receive credit for only one of the following: CHM150 and CHM151LL, or CHM151 and CHM151LL, or CHM150AA, or CHM151AA. Course Attribute(s):General Education Designation: Natural Sciences (Quantitative) - [SQ] in combination with: CHM151LL Arizona Shared Unique Number SUN# CHM 1151 in combination with: CHM151LL | Acad | LAB 1.0 3.0 3.0 | T |
| CHM152 | 2024 Fall | General Chemistry II | | A study of the chemical properties of the major groups of elements, equilibrium theory, thermodynamics, electrochemistry, and other selected topics. | Prerequisites: A grade of C or better in [(CHM150 or CHM151) and CHM151LL], or CHM150AA, or CHM151AA, or permission of the | Completion of CHM152LL required to meet the Natural Science requirement. Student may receive credit for only one of the following: CHM152 and CHM152LL, or CHM152AA. | Acad | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | Instructor, or Department or Division Chair. | | | | |
| CHM152AA | 2024 Fall | General Chemistry II with Lab | | A study of the chemical properties of the major groups of elements, equilibrium theory, thermodynamics, electrochemistry, and other selected topics. | Prerequisites: A grade of C or better in [(CHM150 or CHM151) and CHM151LL], or CHM150AA, or CHM151AA, or permission of the Instructor, or Department or Division Chair. | Completion of prerequisites within the last two years recommended. Student may receive credit for only one of the following: CHM152 and CHM152LL, or CHM152AA. | Acad | LEC 4.0 3.0 3.0 LAB 0.0 3.0 3.0 | T |
| CHM152LL | 2024 Fall | General Chemistry II Laboratory | | Laboratory experience in support of CHM152. | A grade of C or better required in all Prerequisites. Prerequisites or Corequisites: CHM152. | Student may receive credit for only one of the following: CHM152 and CHM152LL, or CHM152AA. | Acad | LAB 1.0 3.0 3.0 | T |
| CHM195AA | 2018 Fall | Principles and Practice of Scientific Research | | Students will learn the use of the scientific method; how, why and where research is conducted; the ethical protocol in the scientific process; how peer review works, and how to formulate scientifically testable hypotheses and design supporting experiments. Students will apply the scientific method in laboratory and/or field research projects, will learn and use appropriate laboratory techniques, and will communicate research design, data collection, and data interpretation in conventional scientific formats. | Prerequisites: A grade of C or better in CHM151 or permission of Instructor. | CHM195AA may be repeated for credit. | Acad | L+L 1.0 2.0 2.0 | T |
| CHM195AB | 2018 Fall | Principles and Practice of Scientific Research | | Students will learn the use of the scientific method; how, why and where research is conducted; the ethical protocol in the scientific process; how peer review works, and how to formulate scientifically testable hypotheses and design supporting experiments. | Prerequisites: A grade of C or better in CHM151 or permission of Instructor. | CHM195AB may be repeated for credit. | Acad | L+L 2.0 4.0 4.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Students will apply the scientific method in laboratory and/or field research projects, will learn and use appropriate laboratory techniques, and will communicate research design, data collection, and data interpretation in conventional scientific formats. | | | | | |
| CHM195AC | 2018 Fall | Principles and Practice of Scientific Research | | Students will learn the use of the scientific method; how, why and where research is conducted; the ethical protocol in the scientific process; how peer review works, and how to formulate scientifically testable hypotheses and design supporting experiments. Students will apply the scientific method in laboratory and/or field research projects, will learn and use appropriate laboratory techniques, and will communicate research design, data collection, and data interpretation in conventional scientific formats. | Prerequisites: A grade of C or better in CHM151 or permission of Instructor. | CHM195AC may be repeated for credit. | Acad | L+L 3.0 6.0 6.0 | T |
| CHM230 | 2023 Fall | Fundamental Organic Chemistry | | Chemistry of representative groups of organic compounds, emphasizing biological applications. | Prerequisites: A grade of C or better in (CHM130 and CHM130LL) or (CHM150 or CHM151 and CHM151LL), or permission of the Instructor, or Department or Division Chair. | Completion of prerequisites within the last two years recommended. CHM230 course content is designed to meet the needs of students in such areas as agriculture, home economics, nursing, pre-physician assistant, and physical education among others. Students may receive credit for only one of the following: CHM230 and CHM230LL or CHM230AA. Course Attribute(s): General Education Designation: Natural Sciences (Quantitative) - [SQ] in combination with: CHM230LL | Acad | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Arizona Shared Unique Number SUN#: CHM 2230 | | | |
| CHM230AA | 2023 Fall | Fundamental Organic Chemistry with Lab | | Chemistry of representative groups of organic compounds, emphasizing biological applications. | Prerequisites: A grade of C or better in [(CHM130 and CHM130LL) or CHM130AA] or [((CHM150 or CHM151) and CHM151LL) or CHM151AA)] or permission of the Instructor or Department or Division Chair. | Students may receive credit for only one of the following: (CHM230 and CHM230LL), or CHM230AA. Completion of prerequisites within the last two years recommended. CHM230AA course content is designed to meet the needs of students in such areas as agriculture, home economics, nursing, pre-physician assistant, and physical education among others. | Acad | LEC 4.0 3.0 3.0 LAB 0.0 3.0 3.0 | T |
| CHM230LL | 2023 Fall | Fundamental Organic Chemistry Laboratory | | Laboratory experience in support of CHM230 | Prerequisites: A grade of C or better in CHM130LL or CHM151LL or equivalent or Corequisites: CHM230. | CHM230LL students may receive credit for only one of the following: (CHM230 and CHM230LL), or CHM230AA. Completion of prerequisites within the last two years recommended. Designed for students in agriculture, dental hygiene, home economics, nursing, and physical therapy. Course Attribute(s): General Education Designation: Natural Sciences (Quantitative) - [SQ] in combination with: CHM230 Arizona Shared Unique Number SUN#: CHM 2230 | Acad | LAB 1.0 3.0 3.0 | T |
| CHM235 | 2018 Fall | General Organic Chemistry I | | Rigorous introduction to chemistry of carbon-containing compounds. Reaction mechanisms and recent methods of synthesis emphasized. | Prerequisites: A grade of C or better in (CHM152 and CHM152LL), or CHM152AA, or (CHM154 and CHM154LL), or permission of the Instructor, or Department or Division Chair. | Completion of prerequisites within the last two years recommended. Course Attribute(s): Arizona Shared Unique Number SUN#: CHM 2235 | Acad | LEC 3.0 3.0 3.0 | S |
| CHM235AA | 2020 Spring | General Organic Chemistry I with Lab | | Rigorous introduction to chemistry of carbon-containing compounds. Reaction mechanisms and | Prerequisites: A grade of C or better in (CHM152 and CHM152LL), or | Student may receive credit for only one of the following: CHM235 and CHM235LL, or CHM235AA. Completion of | Acad | LEC 4.0 3.0 3.0 LAB 0.0 4.0 4.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | recent methods of synthesis emphasized. | CHM152AA, or (CHM154 and CHM154LL), or permission of the Instructor, or Department or Division Chair. | prerequisites within the last two years recommended. | | | |
| CHM235LL | 2018 Fall | General Organic Chemistry I Laboratory | | Laboratory experience in support of CHM235. | Prerequisites: A grade of C or better in CHM235 or Corequisites: CHM235. Completion of prerequisites within the last two years recommended. | Course Attribute(s): Arizona Shared Unique Number SUN#: CHM 2235 | Acad | LAB 1.0 4.0 4.0 | T |
| CHM236 | 2020 Spring | General Organic Chemistry IIA | | Study of chemistry of carbon-containing compounds continued. Structural determination and additional reaction mechanisms and modern methods of synthesis emphasized. | Prerequisites: A grade of C or better in (CHM235 and CHM235LL) or CHM235AA or permission of the Instructor or Department or Division Chair. | Students may receive credit for only one of the following: CHM236 and CHM236LL, or CHM236AA. Completion of prerequisites within the last two years recommended. Course Attribute(s): Arizona Shared Unique Number SUN# CHM 2236 | Acad | LEC 3.0 3.0 3.0 | S |
| CHM236AA | 2020 Spring | General Organic Chemistry IIA with Lab | | Study of chemistry of carbon-containing compounds continued. Structural determination and additional reaction mechanisms and modern methods of synthesis emphasized. | Prerequisites: A grade of C or better in (CHM235 and CHM235LL) or CHM235AA, or permission of the Instructor, or Department or Division Chair. | Student may receive credit for only one of the following: CHM236 and CHM236LL, or CHM236AA. Completion of prerequisites within the last two years recommended. | Acad | LEC 4.0 3.0 3.0 LAB 0.0 4.0 4.0 | T |
| CHM236LL | 2018 Fall | General Organic Chemistry IIA Laboratory | | Laboratory experience in support of CHM236. | Prerequisites: A grade of C or better in CHM236 or Corequisites: CHM236. Completion of prerequisites within the last two years recommended. | Course Attribute(s): Arizona Shared Unique Number SUN#: CHM 2236 | Acad | LAB 1.0 4.0 4.0 | T |
| CHM260 | 2023 Fall | Fundamental Biochemistry | | Structures, properties, and functions of proteins, enzymes, nucleic acids, carbohydrates and lipids; the utilization and synthesis of | Prerequisites: A grade of C or better in [(CHM230 and CHM230LL) or CHM230AA] or | Completion of prerequisites within the last two years recommended. Designed for students in agriculture, dental | Acad | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | these materials by living systems and the relationship of the processes to energy production and utilization. | [(CHM235 and CHM235LL) or CHM235AA] or permission of the Instructor or Department or Division Chair. | hygiene, home economics, nursing, and physical therapy. | | | |
| CHM260LL | 2018 Fall | Fundamental Biochemistry Laboratory | | Laboratory experience in support of CHM260. | Prerequisites: A grade of C or better in CHM260 or Corequisites: CHM260. Completion of prerequisites within the last two years recommended. | | | LAB 1.0 3.0 3.0 | T |
| CHM282AA | 2014 Summer | Service-Learning Experience in Chemistry | | Unpaid Service-Learning (SL) experience, completed with approved community partner. | Prerequisites: Permission of Instructor. | CHM282AA may be repeated for a total of six (6) credit hours. Standard grading available according to procedures outlined in catalog. | Acad | LAB 1.0 1.0 0.0 | L |
| CHM282AB | 2014 Summer | Service-Learning Experience in Chemistry | | Unpaid Service-Learning (SL) experience, completed with approved community partner. | Prerequisites: Permission of Instructor. | CHM282AB may be repeated for a total of six (6) credit hours. Standard grading available according to procedures outlined in catalog. | Acad | LAB 2.0 2.0 0.0 | L |
| CHM282AC | 2014 Summer | Service-Learning Experience in Chemistry | | Unpaid Service-Learning experience, completed with approved community partner. | Prerequisites: Permission of Instructor. | CHM282AC may be repeated for a total of six (6) credit hours. Standard grading available according to procedures outlined in catalog. | Acad | LAB 3.0 3.0 0.0 | L |
| CHM295AA | 2024 Fall | Special Topics in Chemistry | | Specialized chemistry-related content not represented in the main curriculum. | Prerequisites: None. | CHM295AA may be repeated for credit. | Acad | L+L 1.0 1.0 1.0 | T |
| CHM295AB | 2024 Fall | Special Topics in Chemistry | | Specialized chemistry-related content not represented in the main curriculum. | Prerequisites: None. | CHM295AB may be repeated for credit. | Acad | L+L 2.0 2.0 2.0 | T |
| CHM295AC | 2024 Fall | Special Topics in Chemistry | | Specialized chemistry-related content not represented in the main curriculum. | Prerequisites: None. | CHM295AC may be repeated for credit. | Acad | L+L 3.0 3.0 3.0 | T |
| CHM296WA | 2023 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. | Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or | | Acad | LAB 1.0 5.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor. | | | | |
| CHM296WB | 2023 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. | Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor. | | Acad | LAB 2.0 10.0 0.0 | Z |
| CHM296WC | 2023 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. | Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor. | | Acad | LAB 3.0 15.0 0.0 | Z |
| CHM296WD | 2023 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of | Completion of at least twelve (12) college | | | LAB 4.0 20.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | educators and employers to accomplish an outcome related to the career objectives of the students. | credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor. | | | | |
| CHM298AA | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | Prerequisites: Permission of Program Director or Instructor. | Acad | | LAB 1.0 1.0 0.0 | Z |
| CHM298AB | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student | Prerequisites: Permission of Program Director or Instructor. | Acad | | LAB 2.0 2.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | development. COMMON COMPETENCY COURSE | | | | | |
| CHM298AC | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | Prerequisites: Permission of Program Director or Instructor. | | Acad | LAB 3.0 3.0 0.0 | Z |
| CIS100 | 2018 Fall | Internet: A Tool for Learning | | Use of the Internet to promote learning. Focus on Internet services and access. Information provided on browsing, Internet addresses, naming conventions, search concepts and techniques, using bookmarks and capturing information | Prerequisites: None. | | Occ | L+L 0.5 0.5 0.5 | T |
| CIS102 | 2003 Fall | Interpersonal and Customer Service Skills for IT Professionals | | Examines behaviors necessary to develop and support an effective client service organization. Focuses on methods of increasing the effectiveness of help-desk professionals when responding to a range of customer conditions | Prerequisites: None. | | Occ | LEC 1.0 1.0 1.0 | F |
| CIS102DA | 2020 Fall | Customer User Support | | Examines skills, tools and strategies necessary for becoming a computer help-desk or end-user support professional. | Prerequisites: None. | | Occ | L+L 3.0 4.0 4.0 | T |
| CIS103 | 2021 Fall | Introduction to Social Media | | Identify and explain social media and Web 2.0 technologies for personal, academic, professional, and business applications. Create | Prerequisites: None. | Students must be 13 years or older to enroll in CIS103 as students are required to create social media accounts for course participation. | Occ | L+L 3.0 4.0 4.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | and maintain accounts on various sites to socialize, write, and share multimedia, while understanding the related ethics, privacy and security issues. | | | | | |
| CIS105 | 2018 Fall | Survey of Computer Information Systems | | Overview of computer technology, concepts, terminology, and the role of computers in business and society. Discussion of social and ethical issues related to computers. Use of word processing, spreadsheet, database, and presentation software. Includes uses of application software and the Internet for efficient and effective problem solving. Exploration of relevant emerging technologies. | Prerequisites: None. | Course Attribute(s): General Education Designation: Computer/Statistics/Quantitative Applications - [CS] Arizona Shared Unique Number SUN#: CIS 1120 | Occ | L+L 3.0 4.0 4.0 | T |
| CIS107 | 2018 Fall | The Electronic Game Industry | | Introduction to the electronic game industry, including history, market, distribution and publishing channels, business models, team roles, and career landscape. Technical topics covered include software engineering, artificial intelligence, game physics, computer graphics, and networking. | Prerequisites: A grade of C or better in CIS105 or permission of Instructor. | | Occ | L+L 3.0 4.0 4.0 | T |
| CIS108 | 2018 Fall | Electronic Portfolio Development | | Compile, reflect on, and select prior learning experiences and artifacts. Design, produce, and publish an online portfolio that documents prior learning. Includes techniques for presenting the electronic portfolio for evaluation. | Prerequisites: A grade of C or better in (CIS105 or BPC110) or permission of Instructor. | | Occ | L+L 1.0 2.0 2.0 | T |
| CIS109AM | 2001 Fall | Networking Technology I | | Computer networking basics. Network services, transmission media, and connectivity devices covered. Open Systems | Prerequisites: None. | | Occ | LEC 2.0 2.0 2.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Interconnection (OSI) Reference Model | | | | | |
| CIS111 | 2014 Fall | Ethics in Information Technology | | Ethical issues that arise as a result of increasing use of computers, and the responsibilities of those who work with computers, either as computer science professionals or end users. Critical inquiry and review of ethical challenges in information technology business, including professional and corporate responsibility, government regulation, fiduciary responsibilities of information, infringement of intellectual property, security risk assessment, Internet crime, identity theft, employee surveillance, privacy, compliance, social networking, and the ethics of IT corporations. | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| CIS113AE | 2018 Fall | Microsoft Word: Word Processing Level I | | Using word processing software to create, name and manage files, edit text, and do basic formatting of documents. | Prerequisites: None. | CIS113AE may be repeated for a total of three (3) credit hours. | Occ | L+L 1.0 2.0 2.0 | T |
| CIS113BE | 2018 Fall | Microsoft Word: Word Processing Level II | | Using more advanced features of word processing software to format documents, create lists, mail-merged documents, and documents with themes and styles. | Prerequisites: A grade of C or better in CIS113AE or permission of Instructor. | CIS113BE may be repeated for a total of three (3) credit hours. | Occ | L+L 1.0 1.0 1.0 | T |
| CIS113CE | 2018 Fall | Microsoft Word: Word Processing Level III | | Utilizing more advanced features of word processing software to incorporate style and theme elements, use desktop publishing capabilities, and insert tables. | Prerequisites: A grade of C or better in CIS113BE or permission of Instructor. | CIS113CE may be repeated for a total of three (3) credit hours. | Occ | L+L 1.0 1.0 1.0 | T |
| CIS113DE | 2018 Fall | Microsoft Word: Word Processing | | Using word processing software to create, name and manage files, edit text, format, apply themes and styles, | Prerequisites: None. | | Occ | L+L 3.0 4.0 4.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | create and modify tables, apply desktop publishing features, and print a variety of types of documents. | | | | | |
| CIS114AE | 2018 Fall | Excel: Level I | | Computer spreadsheet skills for solving business problems using Excel, including calculations, forecasting, and projections. | Prerequisites: None. | | Occ | L+L 1.0 2.0 2.0 | T |
| CIS114BE | 2018 Fall | Excel: Level II | | Additional Excel spreadsheet techniques, including macro programming, database searching, extraction, and linking to obtain prescribed reports and graphs. | Prerequisites: A grade of C or better in CIS114AE or permission of Instructor. | CIS114BE may be repeated for a total of three (3) credit hours. | Occ | L+L 1.0 1.0 1.0 | T |
| CIS114CE | 2012 Spring | Excel: Level III | | Additional Excel spreadsheet techniques, including complex macros, statistics, and matrix manipulation. Project design using multiple, integrated spreadsheets | Prerequisites: A grade of C or better in CIS114BE or permission of Instructor. | | Occ | LEC 1.0 1.0 1.0 | S |
| CIS114DE | 2018 Fall | Excel Spreadsheet | | Computer spreadsheet skills for solving business problems using Excel, including calculations, forecasting, projections, macro programming, database searching, extraction, linking, statistics, and matrix manipulation. Production of graphs and reports. Project design using multiple, integrated spreadsheets. | Prerequisites: None. | CIS114DE may be repeated for a total of nine (9) credit hours. | Occ | L+L 3.0 4.0 4.0 | T |
| CIS116 | 2018 Fall | Computer Graphics: Introduction to Microsoft Visio | | Introduction to use of Visio graphics software to create and edit drawings using predefined shapes and templates. Use of Visio tools to create simple drawings with text, symbols and labels. | Prerequisites: None. | | Occ | L+L 1.0 2.0 2.0 | T |
| CIS117AM | 2018 Fall | Database Management: Microsoft Access - Level I | | Introduction to the basic elements of a current version of the Microsoft Access database management program, for casual and beginning users. | Prerequisites: None. | | Occ | L+L 1.0 2.0 2.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| CIS117BM | 2018 Fall | Database Management: Microsoft Access - Level II | | Exploration of additional components of the Microsoft Access database management program. | Prerequisites: A grade of C or better in CIS117AM or permission of Instructor. | CIS117BM may be repeated for a total of three (3) credit hours. | Occ | L+L 1.0 1.0 1.0 | T |
| CIS117CM | 2018 Fall | Database Management: Microsoft Access - Level III | | Application of the features of the Microsoft Access program to some common database management problems | Prerequisites: A grade of C or better in CIS117BM. | | Occ | L+L 1.0 1.0 1.0 | T |
| CIS117DM | 2021 Spring | Microsoft Access: Database Management | | Introduction to Microsoft Access. Emphasis on features, design, and database management. | Prerequisites: None. | CIS117DM combines the contents of CIS117AM, CIS117BM and CIS117CM. CIS117DM may be repeated for a total of nine (9) credit hours. | Occ | L+L 3.0 4.0 4.0 | T |
| CIS118AB | 2018 Fall | PowerPoint: Level I | | Use of PowerPoint software to produce professional-quality presentation visuals | Prerequisites: None. | | Occ | L+L 1.0 2.0 2.0 | T |
| CIS118BB | 2018 Fall | PowerPoint: Level II | | Use of PowerPoint software to add movement and sound to desktop presentations to enhance audience attention. | Prerequisites: A grade of C or better in CIS118AB. | CIS118BB may be repeated for a total of three (3) credit hours. | Occ | L+L 1.0 1.0 1.0 | T |
| CIS118DB | 2018 Fall | Desktop Presentation: PowerPoint | | Use of PowerPoint to produce professional-quality presentation visuals with animation and sound. | Prerequisites: None. | CIS118DB may be repeated for a total of nine (9) credit hours. | Occ | L+L 3.0 4.0 4.0 | T |
| CIS119DO | 2020 Fall | Introduction to Oracle: SQL | | Use of Oracle tools and methodologies to fulfill real-world business information requirements. Hands-on exercises for designing, creating, and maintaining database structures to store, retrieve, update, and display data in a relational database using the SQL programming language. Creating and maintaining database objects. Advanced retrieval techniques. | A grade of C or better required in all Prerequisites. Prerequisites or Corequisites: CIS105 or permission of Instructor. | | Occ | L+L 3.0 4.0 4.0 | T |
| CIS119DP | 2018 Fall | Oracle: Database Administration | | Basic administrative tasks performed by a database administrator (DBA). Conceptual understanding and hands-on applications of the Oracle database architecture and interaction of its components. | Prerequisites: A grade of C or better in CIS119DO, or permission of Instructor. (CIS126++ or CIS121++ or MST152++) is recommended. | | | L+L 3.0 4.0 4.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| CIS120AJ | 2018 Fall | Introduction to Digital Photo Editing | | Introduction to digital photography and image editing. Digital photo editing use of electronic techniques to select, manipulate, and edit images. | Prerequisites: None. | | Occ | L+L 1.0 2.0 2.0 | T |
| CIS120DA | 2020 Fall | Introduction to Adobe Premiere | | Foundations of video import, export, and editing. Includes parts and function of a video camera, preproduction and production, incorporating photographs, titles, graphics, animation and audio, capturing, editing, rendering and outputting digital video. Prepares students for the Adobe Certifications related to Adobe Premiere. | Prerequisites: None. | | Occ | L+L 3.0 4.0 4.0 | T |
| CIS120DB | 2020 Fall | Introduction to Adobe Illustrator | | Provides students with the knowledge and skills to use Adobe Illustrator graphics software on a computer. Basic foundation course in the use of electronic techniques to create, manipulate, and edit images, text, abstract art, graphics design, color graphics and business charts; determine file formats appropriate for web and print; utilize tools to optimize graphics and create a PDF file. | Prerequisites: None. | | Occ | L+L 3.0 4.0 4.0 | T |
| CIS120DC | 2020 Fall | Introduction to Adobe Animate | | Focuses on entry-level skill expectations for digital animation using Adobe Animate. Covers basic animation techniques used in the creation, manipulation, and editing of animation graphics. Prepares students for the Adobe certifications related to Adobe Animate. | Prerequisites: None. | | Occ | L+L 3.0 4.0 4.0 | T |
| CIS120DF | 2020 Fall | Introduction to Adobe Photoshop | | Focuses on entry-level skills and knowledge for digital imaging using Adobe | Prerequisites: None. | | Occ | L+L 3.0 4.0 4.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Photoshop. Prepares students for the Adobe Certifications related to Photoshop. | | | | | |
| CIS120DG | 2018 Fall | Fireworks: Web Graphics | | Use of graphics software to create and edit vector and bitmap (raster) graphics. Creation and manipulation of paths and special effects. Covers slices, buttons, pop-up menus, navigation bars, and animations for use in web sites. | Prerequisites: None. | | Occ | L+L 3.0 4.0 4.0 | T |
| CIS120DK | 2018 Fall | Introduction to Digital Video Editing | | Introduction to digital video editing comprises of a foundation for video import, export, and editing functions. Includes parts and function of a video camera, preproduction and production, incorporating photographs, titles, graphics, animation and audio, capturing, editing, rendering and outputting digital video. | Prerequisites: None. | | Occ | L+L 3.0 4.0 4.0 | T |
| CIS120DL | 2020 Fall | Introduction to Adobe After Effects | | Includes creating visual effects for video projects. Explores techniques and methodologies used to create shots for big budget special effects. Topics include color and light matching, keying, motion tracking, rotoscoping and working with film. | Prerequisites: A grade of C or better in CIS120DA or CIS120DK, or permission of Instructor. | | Occ | L+L 3.0 4.0 4.0 | T |
| CIS120DO | 2020 Fall | Introduction to Adobe Audition | | Introduction to editing audio files in a multitrack editing environment using Adobe Audition. Includes the import of files in a variety of formats that were generated using other software and how to export files. | Prerequisites: None. | | Occ | L+L 3.0 4.0 4.0 | T |
| CIS120DP | 2018 Fall | Adobe Acrobat Pro: Portable Document Format (PDF) Files | | Introduction to creating PDF (Portable Document Format) files using Adobe Acrobat for web viewing and printing. Addresses creation of interactive PDF documents | Prerequisites: None. | | Occ | L+L 3.0 4.0 4.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | including security settings, navigation links, and form fields. | | | | | |
| CIS121AB | 2018 Fall | Microsoft Command Line Operations | | Use of the Microsoft command line interface: basic concepts, internal and external commands, subdirectories, and editor. | Prerequisites: None. | | Occ | L+L 1.0 2.0 2.0 | T |
| CIS121AE | 2018 Fall | Windows Operating System: Level I | | Specific topics include Windows basics, navigating and customizing the desktop, maintaining hardware and software, improving performance, configurations, securing your computer, taskbar, organizing, searching and managing folders and files, installing and uninstalling applications, Internet Explorer fine tuning, security, and searching, including advanced search techniques, keyboard shortcuts, and current topics. | Prerequisites: None. | | Occ | L+L 1.0 2.0 2.0 | T |
| CIS121AH | 2020 Fall | Microsoft PowerShell/Command Line Operations | | Day-to-day command line administration tasks of Microsoft Windows. PowerShell used to create scripts to administer Microsoft windows environment. | Prerequisites: None. MST150++ suggested but not required. | | | L+L 3.0 4.0 4.0 | T |
| CIS121AI | 2018 Fall | Mac Operating System | | Specific topics include getting started with Mac OS; working with disks, folders, and files; installing and using applications; setting system preferences; printing, faxing, and scanning; getting and living online; using iLife; sharing a Mac with other users; creating a home network; and maintaining the Mac. | Prerequisites: None. | Occ | Occ | L+L 1.0 2.0 2.0 | T |
| CIS122AE | 2018 Fall | Windows Operating System: Level II | | Additional capabilities of the Windows program that configure devices and customize the presentation of the operating system. System | Prerequisites: A grade of C or better in CIS121AE or permission of Instructor. | | Occ | L+L 1.0 2.0 2.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | tools, control panel utilities, the My Computer, Network Neighborhood, and Microsoft Exchange desktop icons. Other helpful utilities presented. | | | | | |
| CIS124AA | 2018 Fall | Project Management Software: Level I | | Utilization of project management software packages by managers and advanced business students to solve critical management planning tasks. Evaluation of management opportunities utilizing software packages to monitor project progress and resource allocation. Includes "what-if" analyses, and preparation of management reports | Prerequisites: None. | | Occ | L+L 1.0 1.7 1.7 | T |
| CIS124BA | 2018 Fall | Project Management Software: Level II | | Advanced use of project management software. Covers features and functions to solve critical management planning tasks. Project communications, scheduling, resource allocation, tracking processes and importing and exporting data also covered. Project consolidation emphasized. | Prerequisites: A grade of C or better in CIS124AA or permission of Instructor. | | Occ | L+L 1.0 1.7 1.7 | T |
| CIS126AA | 2018 Fall | UNIX Operating System: Level I | | Use of the UNIX operating system: system components, built-in commands, files and directories, editors, and UNIX Shell and command lines. | Prerequisites: None. | | Occ | L+L 1.0 2.0 2.0 | T |
| CIS126AL | 2018 Fall | Linux Operating System I | | Introduction to the Linux Operating system. Develop knowledge and skills required to install, configure a Linux-based workstation including basic network functions. | Prerequisites: None. | | Occ | L+L 1.0 2.0 2.0 | T |
| CIS126BA | 1999 Fall | UNIX Operating System: Level II | | Installation, configuration, and maintenance of the UNIX operating system | Prerequisites: A grade of C or better in CIS126AA. | | | LEC 1.0 1.0 1.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| CIS126CA | 1999 Fall | UNIX Operating System: Level III | | Create login scripts and batch files, and maintain system communications | Prerequisites: A grade of C or better in CIS126BA. | | | LEC 1.0 1.0 1.0 | S |
| CIS126DA | 2018 Fall | UNIX Operating System | | Use of a UNIX operating system including system components, built-in commands, files, and directories, editors, and UNIX shell and command lines. Installation, configuration, and maintenance of a UNIX operating system. Create scripts and batch files, and maintain system communications. | Prerequisites: None. | Occ | Occ | L+L 3.0 4.0 4.0 | T |
| CIS126DL | 2018 Fall | Linux Operating System | | Introduction to the Linux Operating system. Develop knowledge and skills required to install, configure and troubleshoot a Linux-based workstation including basic network functions. Learn basic command line and Graphical User Interface (GUI) desktop environment utilities and applications. Fundamental abilities to achieve the entry-level industry certification covered. | Prerequisites: None. | | Occ | L+L 3.0 4.0 4.0 | T |
| CIS126RH | 2018 Fall | Red Hat System Administration I | | Introduction to core administration skills needed to manage a Red Hat Enterprise Linux system. This Red Hat Academy course helps prepare for the Red Hat certification exams using a hands-on, task-focused curriculum. | Prerequisites: None. | | Occ | L+L 3.0 4.0 4.0 | T |
| CIS128 | 2018 Fall | Databases in Practice Management | | Use of a Practice Management Database (Electronic Health Record software) for installation and maintenance of an Electronic Health Record. Application of policies and procedures for data control, security, privacy, | Prerequisites: None. | | Occ | L+L 3.0 4.0 4.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | and confidentiality of health information in electronic health information management systems. | | | | | |
| CIS129 | 2018 Fall | Introduction to Microsoft Sharepoint | | Designed to provide basic skills enabling the end user to navigate, manage documents and collaborate using Microsoft Sharepoint. | Prerequisites: A grade of C or better in BPC110, or CIS105, or permission of Instructor. | | Occ | L+L 1.0 2.0 2.0 | T |
| CIS130DA | 2018 Fall | 3D Studio Max: Modeling | | Introduction to 3D modeling using 3D Studio Max. Emphasis will be placed on Polygonal, Solid, and Surface modeling tools. Students will also understand concepts such as modifiers, sub-object editing, extruding, Booleans, lofting, lathing and compound object modeling. Introduction to basic lighting, texturing and rendering techniques. | Prerequisites: A grade of C or better in CIS105. | | Occ | L+L 3.0 4.0 4.0 | T |
| CIS130DB | 2018 Fall | 3D Studio Max: Animation | | Introduction to three-dimensional animation tools and principles, with an emphasis on character construction and animation. 3D Studio Max will be the primary application for use in this class. | Prerequisites: A grade of C or better in CIS105. | | Occ | L+L 3.0 4.0 4.0 | T |
| CIS131AA | 1998 Fall | Doing Business on the Internet | | Overview of different ways businesses are taking advantage of and using the Internet. Includes how companies are selling items and services over the Internet; techniques used to expand customer contacts; marketing strategies; availability of government and financial information; future potential and disadvantages; using the Internet for customer service; establishing a World Wide Web site. Some previous computer experience preferred | Prerequisites: None. | | Occ | LEC 1.0 1.0 1.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| CIS132 | 2018 Fall | HTML/CSS | | Overview of foundational HyperText Markup Language (HTML) and Cascading Style Sheets (CSS) coding. Create web pages and sites that adhere to web standards and best practices using current web coding standards. | Prerequisites: None. | | Occ | L+L 3.0 4.0 4.0 | T |
| CIS133AA | 2018 Fall | Internet/Web Development Level I-A | | Overview of the Internet and its resources. Hands-on experience with various Internet communication tools | Prerequisites: None. | | Occ | L+L 1.0 2.0 2.0 | T |
| CIS133DA | 2019 Fall | Internet/Web Development Level I | | Overview of the Internet/World Wide Web (WWW) and its resources. Hands-on experience with various Internet/WWW resource discovery, information retrieval, and social media tools. Design and Development of multi-page websites using current Hyper Text Markup Language (HTML) and Cascading Style Sheets (CSS) standards.. | Prerequisites: None. | | Occ | L+L 3.0 4.0 4.0 | T |
| CIS136 | 2019 Summer | Content Management Systems: WordPress | | Overview of WordPress Content Management System. Includes hands-on design and creation of web pages and blogs for the World Wide Web. Designed to cover best practices for web site/blog creation. | Prerequisites: None. | | Occ | L+L 3.0 4.0 4.0 | T |
| CIS138DA | 2019 Summer | Desktop Design and Publishing Using Adobe InDesign | | Use of Adobe InDesign to compose and print textual and graphic materials of high quality. Includes word processing of copy, use of graphics programs, layout of design elements, printing alternatives, and file formats. | Prerequisites: None. | | Occ | L+L 3.0 4.0 4.0 | T |
| CIS140 | 2021 Fall | Survey of Multimedia Technology | | Introduction to multimedia technology and its uses. Overview of the various hardware and software used in developing and delivering | Prerequisites: A grade of C or better in CIS105 or permission of Instructor. | | Occ | L+L 2.0 3.0 3.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | multimedia. Emphasis on how multimedia is used in education and training. Provides a basic understanding of the process used to define and develop multimedia applications. | | | | | |
| CIS143 | 2021 Spring | Introduction to Critical Infrastructure Protection | | History and overview of critical infrastructure protection and its ties within the Department of Homeland Security prior to and after September 11, 2001. Focus on risk management associated with sectors specific industries and provides and overview of the public and private partnerships, along with laws and standards developed to protect critical infrastructures. | Prerequisites: A grade of C or better in CIS111 or permission of Instructor. | | Occ | LEC 3.0 3.0 3.0 | S |
| CIS150 | 2020 Fall | Programming Fundamentals | | Structured program design and logic tools. Use of computer problems to demonstrate and teach concepts using appropriate programming language. | A grade of C or better required in all Prerequisites. Prerequisites or Corequisites: CIS105 or permission of Instructor. | | Occ | L+L 3.0 4.0 4.0 | T |
| CIS150AB | 2020 Fall | Object-Oriented Programming Fundamentals | | Structured and Object-Oriented design and logic tools. Use of computer problems to demonstrate and teach concepts using an appropriate programming language. | A grade of C or better required in all Prerequisites. Prerequisites or Corequisites: CIS105 or permission of Instructor. | | Occ | L+L 3.0 4.0 4.0 | T |
| CIS151 | 2018 Fall | Computer Game Development -Level I | | Introduction to object-oriented game development, game design, and game theory. Use of computer software to demonstrate and teach concepts using an appropriate game development platform to model real-time simulations and create computer games using object oriented tools. Introduction to developing PC games, educational software, and training software using | Prerequisites: A grade of C or better in CIS105 or permission of Instructor. | | Occ | L+L 3.0 4.0 4.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | windows based object oriented developments tools. | | | | | |
| CIS154 | 2018 Fall | Database Modeling and Design | | Top-down, systematic approach to defining a database design based on analysis of business information and requirements. Identifying and evaluating standard data model and design patterns. Developing an entity-relationship (ER) diagram that accurately reflects the business. Mapping the ER diagram to an initial database design and revising for complex entities, attributes, and relationships. | Prerequisites: A grade of C or better in CIS105 or permission of Instructor. | | Occ | L+L 3.0 4.0 4.0 | T |
| CIS156 | 2021 Fall | Python Programming: Level I | | Introduction to Python programming. Includes general concepts, program design, development, data types, operators, expressions, flow control, functions, classes, input and output operations, debugging, structured programming, and object-oriented programming. | Prerequisites: A grade of C or better in CIS105 or permission of Instructor. | | Occ | L+L 3.0 4.0 4.0 | T |
| CIS159 | 2018 Fall | Visual Basic Programming I | | Use of the Visual Basic programming language to solve problems using suitable examples from business or other disciplines | Prerequisites: A grade of C or better in CIS105 or permission of Instructor. | | Occ | L+L 3.0 4.0 4.0 | T |
| CIS162 | 2020 Spring | C Programming I | | Beginning C programming. Includes features needed to construct programs, functions, pointers, input and output options, data types, structures, and unions, and disk file operations. | Prerequisites: A grade of C or better in CIS105 or permission of Instructor. | | Occ | L+L 3.0 4.0 4.0 | T |
| CIS162AB | 2018 Fall | C++: Level I | | Introduction to C++ programming including general concepts, program design, development, data types, operators, expressions, flow control, functions, classes, input and output | Prerequisites: A grade of C or better in CIS105 or permission of Instructor. | Course Attribute(s): General Education Designation: Computer/Statistics/Quantitative Applications - [CS] | Occ | L+L 3.0 4.0 4.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | operations, debugging, structured programming, and object-oriented programming | | | | | |
| CIS162AC | 2018 Fall | Visual C++: Level I | | Introduction to Visual C++ programming including general concepts, program design, development, data types, operators, expressions, flow control, functions, classes, input and output operations, debugging, structured programming, and object-oriented programming. | Prerequisites: A grade of C or better in CIS105 or permission of Instructor. | | Occ | L+L 3.0 4.0 4.0 | T |
| CIS162AD | 2018 Fall | C#: Level I | | Introduction to C# programming including general concepts, program design, development, data types, operators, expressions, flow control, functions, classes, input and output operations, debugging, structured programming, and object-oriented programming | Prerequisites: A grade of C or better in CIS105 or permission of Instructor. | Course Attribute(s): General Education Designation: Computer/Statistics/Quantitative Applications - [CS] | Occ | L+L 3.0 4.0 4.0 | T |
| CIS162RS | 2022 Spring | Rust Programming | | Beginning Rust programming. Includes features needed to construct programs, functions, pointers, input and output options, data types, structures, unions, and disk file operations. | Prerequisites: A grade of C or better in CIS105 or permission of Instructor. | | Occ | L+L 3.0 4.0 4.0 | T |
| CIS163AA | 2018 Fall | Java Programming: Level I | | Introduction to Java programming. Includes features needed to construct Java Applets, Java Applications, control structures, methods, arrays, character and string manipulation, graphics, and object-oriented programming | Prerequisites: A grade of C or better in CIS105 or permission of Instructor. | Course Attribute(s): General Education Designation: Computer/Statistics/Quantitative Applications - [CS] | Occ | L+L 3.0 4.0 4.0 | T |
| CIS164AB | 2018 Fall | Oracle: PL/SQL Programming | | Writing PL/SQL procedures, functions, and packages. Creating and managing PL/SQL program units and database triggers in Oracle development environment. | Prerequisites: A grade of C or better in CIS119DO or permission of Instructor. | | Occ | L+L 3.0 4.0 4.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Managing dependencies and manipulating large objects | | | | | |
| CIS165 | 2020 Fall | Introduction to IOS Application Development | | Introduction to iOS device programming utilizing the XCode application, and the programming languages Objective-C and/or Swift, utilizing various iOS frameworks. Understand iOS hardware and feature basics. Go through the entire design process from concept to final product delivery. | Prerequisites: A grade of C or better in CIS150++, or CIS156, or CIS159, or CIS162++, or CIS163AA, or permission of Instructor. | | Occ | L+L 3.0 4.0 4.0 | T |
| CIS165DA | 2020 Fall | Introduction to Android Application Development | | Beginning with an overview of Android features, this class explores the required software tools and programming techniques for developing Android device applications from creating the user interface, working with activities, intents and views, to using databases, providing data persistence, accessing device services, to debugging and publishing applications. | Prerequisites: A grade of C or better in CIS150++, or CIS156, or CIS159, or CIS162++, or CIS163AA, or permission of Instructor. | | Occ | L+L 3.0 4.0 4.0 | T |
| CIS165DB | 2018 Fall | C#/VB.NET: Windows 8 App Development | | Building upon desktop application development with Visual Studio using VB.NET or C# languages, developing apps for Windows 8 utilizes Extensible Application Markup Language (XAML) for interface design. Windows 8 utilizes UI design standards that are unique from previous versions. Develop apps for Windows 8 smartphones and tablets that utilize touch input methods, translate into different resolutions, states, and orientations, and can tap into mobile features such as location and acceleration sensors. Includes working with | Prerequisites: A grade of C or better in CIS159 or CIS162AD or permission of Instructor. | | Occ | L+L 3.0 4.0 4.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | external data and packaging for Windows Store distribution. | | | | | |
| CIS165DC | 2018 Fall | Xamarin/C# Cross-Platform Development | | Develop cross-platform mobile apps for iOS, Android, and Windows devices using the Xamarin.Forms Platform and C#, utilizing the Visual Studio IDE. Focusing on Xamarin.Forms projects, the course includes PCL and SAP approaches to shared code, developing interfaces with XAML or in C# code, emulator testing, data binding, backgrounding, packaging for deployment. Coding techniques include Layouts and shared controls (views), MVVM pattern, LINQ, SQLite, and Dependency Injection for platform specific coding. | Prerequisites: A grade of C or better in CIS162AD, or permission of Instructor. | | Occ | L+L 3.0 4.0 4.0 | T |
| CIS166 | 2019 Fall | Web Scripting/Programming | | Software development for Web sites, including client-side script and Common Gateway Interface (CGI) scripting. Covers Web-based transaction processing and use of databases in conjunction with the Web. Includes security issues. | Prerequisites: A grade of C or better in CIS133DA or permission of Instructor. | | Occ | L+L 3.0 4.0 4.0 | T |
| CIS166AA | 2020 Spring | Introduction to JavaScript | | Introduction to basic JavaScript programming concepts including syntax. Covers Hypertext Markup Language (HTML), programming logic and debugging, as well as forms manipulation and animation. | Prerequisites: A grade of C or better in CIS133DA or permission of Instructor. | | Occ | L+L 3.0 4.0 4.0 | T |
| CIS166AC | 2019 Fall | Web Scripting with Active Server Pages (ASP).NET | | Introduction to web scripting using Microsoft's ASP.Net (Active Server Pages). Web application development using Hypertext Markup Language (HTML), ASP.Net Web Forms, programming logic, and | Prerequisites: A grade of C or better in CIS133DA and (CIS159 or CIS162AD) or permission of Instructor. | | Occ | L+L 3.0 4.0 4.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Structured Query Language (SQL). | | | | | |
| CIS166AE | 2019 Fall | Web Scripting with PHP: Hypertext Preprocessor (PHP) | | Introduction to web scripting with PHP (PHP: Hypertext Preprocessor). Web application development using Hypertext Markup Language (HTML), PHP, programming logic, and Structured Query Language (SQL). | Prerequisites: A grade of C or better in CIS133DA or permission of Instructor. | | Occ | L+L 3.0 4.0 4.0 | T |
| CIS171 | 2019 Spring | Survey of Blockchain Technology | | This survey class will introduce you to the exciting world of distributed ledger technology (i.e. the blockchain), cryptocurrencies such as Bitcoin and Ether as well as smart contracts. The emphasis is on the blockchain's role in revolutionizing business. Basic knowledge of computer operation and the ability to browse the Internet are recommended. | Prerequisites: None. | | Occ | L+L 3.0 4.0 4.0 | T |
| CIS175SA | 2018 Fall | Interconnecting Cisco Network Devices | | Procedures for interconnecting existing computer networks. Emphasis on internetworking, layer usage, and software configuration. Covers router and switch usage, protocol suite and wide-area networking, as well as Internet protocol address and routing configuration. Also includes frame relay and X.25 configuration, access list traffic management, and alternate router access information. | Prerequisites: None. | | Occ | L+L 3.0 4.0 4.0 | T |
| CIS189 | 2018 Fall | Virtualization and IT Solutions for Digital Businesses | | Introduction to Virtualization course is designed to teach basic virtualization computing concepts to learners. It then expands on the basic technical introduction provided | Prerequisites: None. | | Occ | L+L 3.0 4.0 4.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | and explores the concepts in more detail with an emphasis on mapping the technologies to business needs and solutions. This course is suitable for anyone who wants to know more about terms like "cloud" and "virtualization." It will serve as a foundation to build upon when students learn how to design, install and configure various cloud technologies. | | | | | |
| CIS190 | 2020 Fall | Introduction to Networking | | Overview of networks. Emphasis on the elements of a network, current issues and products, and use of a network. Includes terminology, hardware and software components, connectivity, resource monitoring and sharing, electronic mail and messaging, and security issues. Helps prepare students for the CompTIA Network+ examination. | Prerequisites: None. Corequisites: CIS105 or permission of Instructor. | | | L+L 3.0 4.0 4.0 | T |
| CIS197 | 2020 Fall | VMware ESXI Server Enterprise | | Introduction to vSphere and VMware ESXI server in the enterprise. Covers many aspects of virtualization for VMware ESXI server administration. Designed to develop knowledge and skills required to install, configure and troubleshoot a VMware ESXI Server (vSphere) including basic network functions. | Prerequisites: A grade of C or better in [CIS105 and (BPC270 or MST150++) and (CIS126DL or CIS126RH) and (CIS190 or CNT140AB)] or permission of Instructor. | Occ | | L+L 3.0 4.0 4.0 | T |
| CIS198 | 2018 Fall | VMware vSphere: Optimize and Scale | | VMware vSphere: Optimize and Scale is designed for experienced VMware vSphere users. It teaches advanced skills for configuring and maintaining a highly available and scalable virtual infrastructure. Through a mix | Prerequisites: A grade of C or better in CIS197. | Occ | | L+L 3.0 4.0 4.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | of lecture and hands-on labs, you will configure and optimize the vSphere features that build a foundation for a truly scalable infrastructure and discuss when and where these features have the greatest effect. It enables you to understand vSphere at a deeper level and how to use advanced features and controls. | | | | | |
| CIS200 | 2020 Fall | VMware NSX: Install, Configure, Manage | | This comprehensive, fast-paced training course focuses on installing, configuring, and managing VMware NSX. This course covers NSX as a part of the software-defined data center platform, implementation use cases along with features of NSX, and functionality operating at Layer 2 through Layer 7 of the OSI model. Lecture and hands-on lab activities support the student's understanding of NSX features, functionality, and on-going management and control. | Prerequisites: A grade of C or better in CIS197. | Occ | | L+L 3.0 4.0 4.0 | T |
| CIS201 | 2024 Fall | Introduction to Operational Technology | | Differences between Operational Technology (OT) and Information Technology (IT). Focus on the components and their uses within an OT system. Addresses the inherent threats, physical and cyber related, to an OT system when connected to an IT system needed to be addressed in order to maintain security and resilience. | Prerequisites: A grade of C or better in CIS270, or ITS110, or permission of Instructor. | | | L+L 3.0 4.0 4.0 | T |
| CIS202 | 2024 Fall | Introduction to Smart Grid Security | | Focus on differences between control systems, used to control physical and computer information systems, used to | Prerequisites: A grade of C or better in (CIS270 or ITS110) and | Occ | | LEC 3.0 3.0 3.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | process data, in the Power and Utility industry. Power Systems industry, system elements, functions and security risks are covered. | CIS143, or permission of Instructor. | | | | |
| CIS203 | 2024 Fall | Principles of the Risk Management Framework | | History and overview of the Federal Information Security Modernization Act (FISMA) and its effect on cybersecurity management and oversight. Focus of the Risk Management Framework (RMF) and its use in the process of authorizing information systems to operate under the FISMA guidelines. | Prerequisites: A grade of C or better in CIS270, or ITS110, or permission of Instructor. | | Occ | L+L 3.0 4.0 4.0 | T |
| CIS213DE | 2018 Fall | Advanced Microsoft Word: Word Processing | | Using advanced word processing software features to perform tasks such as mail merge, collaboration, web pages, math functions, macros, photo enhancements, graphics, tables, forms and manage long documents. | Prerequisites: A grade of C or better in CIS113DE or (CIS113AE and CIS113BE and CIS113CE) or permission of Instructor. | | Occ | L+L 3.0 4.0 4.0 | T |
| CIS214DA | 2021 Fall | Advanced Excel for Data Analytics | | Advanced Excel spreadsheet features for data analytics including advanced functions, PivotTables, Data Modelling, Dashboard creation and forecasting for Business Intelligence (BI). Includes capstone project of an interactive dashboard using a multi-table Excel Data Model. | A grade of C or better required in all Prerequisites. Prerequisites or Corequisites: [CIS114DE and (CIS117DM or CIS276DA or CIS276DB)], or permission of Instructor. | A basic understanding of statistics is required. | Occ | L+L 3.0 4.0 4.0 | T |
| CIS214DE | 2019 Spring | Advanced Excel Spreadsheet: Level II | | Advanced Excel spreadsheet features including formatting techniques, macros and Visual Basic for applications. Templates, built-in functions and lists as well as analysis tools including Pivot Tables and Goal Seek covered. Import and export data, workgroup collaboration and | Prerequisites: A grade of C or better in CIS114DE or permission of Instructor. | | Occ | L+L 3.0 4.0 4.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Internet features of Excel emphasized. | | | | | |
| CIS215 | 2023 Fall | Foundations of Data Analytics and Programming | | Overview of data analytics and programming, concepts, terminology, and how analytics and programming are used professionally in business. Use of office application software, dashboards and Integrated Development Environments (IDEs). Includes exploration of relevant emergent technologies. | A grade of C or better required in all Prerequisites. Prerequisites or Corequisites: CIS105 or permission of Instructor. | | Occ | L+L 3.0 4.0 4.0 | T |
| CIS216 | 2023 Fall | Data Governance, Management, and Quality | | Overview of data governance, data management, and data quality concepts and terminology, and the roles of individuals and businesses with respect to data governance, data management and data quality in analytics. Use of word processing, spreadsheet, database and presentation software. Will demonstrate and use data governance, data management and data quality frameworks and models. | A grade of C or better required in all Prerequisites. Prerequisite or Corequisites: CIS215 or permission of Instructor. | | Occ | L+L 3.0 4.0 4.0 | T |
| CIS217AM | 2018 Fall | Advanced Microsoft Access: Database Management | | Advanced database concepts including database design, primary and secondary key selection and relationships between tables. Queries, sub forms, macros, events, Visual Basic modules and Access Internet features also covered | Prerequisites: A grade of C or better in CIS117CM or CIS117DM. | | Occ | L+L 3.0 4.0 4.0 | T |
| CIS220DC | 2018 Fall | Flash: Advanced Animation and ActionScript | | Advanced Flash programming, action scripting, tweening, advanced buttons and user input, movie clips, using dynamic sound and text, managing information flow, Object-Oriented Programming concepts in relation to Flash. | Prerequisites: A grade of C or better in CIS120DC or permission of Instructor. | | Occ | L+L 3.0 4.0 4.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| CIS220DF | 2022 Fall | Adobe Photoshop Level II: Advanced Digital Imaging | | Goes beyond the basic use of palettes, selections, layers, menus, and tool options, and focuses on using Photoshop software's advanced features to manipulate and correct digital and digitally produced images. | Prerequisites: A grade of C or better in CIS120DF or permission of Instructor. | | Occ | L+L 3.0 4.0 4.0 | T |
| CIS220DK | 2020 Fall | Advanced Adobe Premiere | | Includes an in-depth study of digital video editing using premiere, including preproduction, production and post production. Advanced techniques into a capstone project. Emphasis placed on enhanced workflow processes, integration of other applications into Premiere, multiple output formats, timesaving quick key setup and advanced production and editing tools. | Prerequisites: A grade of C or better in CIS120DA, or CIS120DK, or permission of Instructor. | | Occ | L+L 3.0 4.0 4.0 | T |
| CIS221AB | 2018 Fall | Microsoft Power Shell | | Microsoft Power Shell (PS) is used to aid system administrators of Microsoft Network Operating Systems (NOS) in automating many administrative tasks through shell script automation. | Prerequisites: A grade of C or better in BPC121AB CIS121AB or permission of Instructor. | | Occ | L+L 1.0 2.0 2.0 | T |
| CIS224 | 2018 Fall | Project Management Microsoft Project for Windows | | Introduction to project management concepts while working with MS Project to solve complex project management networks, including creating Gantt and PERT charts, tracking project progress, planning for restrictions, and integrating MS Project with other software packages such as Excel, Word, Powerpoint, and cc Mail. | Prerequisites: None. | | Occ | L+L 3.0 4.0 4.0 | T |
| CIS225 | 2018 Fall | Business Systems Analysis and Design | | Investigation, analysis, design, implementation and evaluation of business computer systems. | Prerequisites: Any programming language or permission of Instructor. | | Occ | L+L 3.0 4.0 4.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| CIS225AB | 2018 Fall | Object-Oriented Analysis and Design | | Methodologies and notations for fundamental object-oriented analysis and design including use cases, objects, classes, stereotypes, and relationships. Object-oriented iterative process for system development. A continuous application development exercise for applying the analysis and design concepts. | Prerequisites: Any programming language or permission of Instructor. | | Occ | L+L 3.0 4.0 4.0 | T |
| CIS226AL | 2018 Fall | Internet/Intranet Server Administration-Linux | | Configuration and management of internet/intranet services, including the Apache web server, Simple Mail Transfer Protocol servers (SMTP), Structured Query Language (SQL server), File Transfer Protocol (FTP), Network Time Protocol (NTP), and other network services used in home and small business environments. Covers basic security configuration and testing. | Prerequisites: A grade of C or better in CIS126 (any module) or permission of Instructor. | | Occ | L+L 3.0 4.0 4.0 | T |
| CIS227 | 2020 Spring | Assembly Language | | Concepts and use of the Assembly programming language, including basic arithmetic operations, flow control, and memory management. | Prerequisites: A grade of C or better in CIS162++ or permission of Instructor. | | Occ | L+L 3.0 4.0 4.0 | T |
| CIS228 | 2018 Fall | Advanced Databases for Practice Management | | Advanced installation, configuration and use of Practice Management Database (Electronic Health Record software) for implementation and maintenance of for vendor specific and open source Electronic Health Records (EHRs). Configuration of policies and procedures for data control, security, privacy, and confidentiality of health information in electronic health | Prerequisites: A grade of C or better in CIS128 or permission of Instructor. | | Occ | LEC 3.0 4.0 4.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | information management systems. | | | | | |
| CIS230DA | 2018 Fall | 3D Studio Max: Materials | | Emphasis on creating and applying materials and textures to three-dimensional environments. Techniques for creating skins, surfaces, and shading types for objects, environments and characters will be explored. Original textures, both life-like and imaginary, will be created using 3D Studio Max and a 2D computer graphics software application. | Prerequisites: A grade of C or better in CIS130DA or CIS120DF or CIS120DG or permission of Instructor. | | Occ | L+L 3.0 4.0 4.0 | T |
| CIS230DB | 2018 Fall | 3D Studio Max: Lighting and Rendering | | Emphasis on lighting and rendering for three-dimensional environments. Techniques for illuminating scenes and characters will be explored. Prepare scenes for rendering to video, film and real-time rendering using 3D Studio Max. | Prerequisites: A grade of C or better in CIS130DA or permission of instructor. | | Occ | L+L 3.0 4.0 4.0 | T |
| CIS231 | 2022 Fall | Ethereum Blockchain Application Development | | Exploration of the theory behind Ethereum blockchain technology and the development of Ethereum smart contracts. In-depth emphasis on programming concepts relating to the creation and eventual deployment of smart contracts to the Ethereum blockchain. | Prerequisites: A grade of C or better in CIS171 or permission of Instructor. | CIS156, CIS159, CIS162++, CIS163AA, or equivalent skills are recommended. | Occ | L+L 3.0 4.0 4.0 | T |
| CIS233AA | 2019 Fall | Internet/Web Development Level II-A | | Design and creation of pages on the World Wide Web using hypertext markup language (HTML). Hands-on experience authoring HTML and preparing sophisticated web documents. | Prerequisites: A grade of C or better in CIS133DA or permission of Instructor. | | Occ | L+L 1.0 2.0 2.0 | T |
| CIS233AC | 2019 Fall | Internet Web Development: Dreamweaver Level I | | Design and development of websites using Dreamweaver. Hands-on experience designing, developing, testing, and publishing web | Prerequisites: A grade of C or better in CIS133DA or permission of Instructor. | | Occ | L+L 1.0 2.0 2.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | documents that contain client-side web technologies. | | | | | |
| CIS233BA | 2005 Summer I | Internet/Web Development Level II-B | | Hands-on experience designing Web presentations using advanced markup languages, programming languages, scripts, and multimedia | Prerequisites: A grade of C or better in CIS233AA or permission of Instructor. | | Occ | LEC 1.0 1.0 1.0 | S |
| CIS233DA | 2021 Fall | Internet/Web Development Level II | | Plan, design and create web sites using HTML and Advanced Cascading Style Sheets (CSS). Expedite the development process using CSS frameworks and libraries. Enhance user experience and web site functionality using supporting technologies. Exploration of User Interface (UI) and User Experience (UX), best practices, accessibility, strategies, and careers in web design and development. | Prerequisites: A grade of C or better in CIS133DA or permission of Instructor. | | Occ | L+L 3.0 4.0 4.0 | T |
| CIS233DC | 2019 Fall | Internet Web Development: Dreamweaver | | Design and development of comprehensive and interactive websites using Dreamweaver. Hands-on experience designing, developing, testing, and publishing web documents that contain various client-side web technologies. Assists in preparing students for the Adobe Certifications related to Adobe Dreamweaver. | Prerequisites: A grade of C or better in CIS132 or CIS133DA or permission of Instructor. | | Occ | L+L 3.0 4.0 4.0 | T |
| CIS234 | 2019 Fall | XML Application Development | | The use of Extensible Markup Language (XML) to make documents smarter, simplify Web automation, and to communicate between databases, both within and between corporations. Includes techniques for XML generation, data extraction and sharing, and | Prerequisites: A grade of C or better in CIS133DA or permission of Instructor. | | Occ | L+L 3.0 4.0 4.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | transformation and managing of XML files. | | | | | |
| CIS235 | 2019 Fall | e-Commerce | | Introduction to Electronic Commerce on the Internet. Designing an electronic storefront including web page content and development, e-commerce site marketing, advertisement, legal and security considerations, credit card and other debit transaction covered. Also includes current issues in e-commerce. | Prerequisites: A grade of C or better in CIS133DA or permission of Instructor. | | Occ | L+L 3.0 4.0 4.0 | T |
| CIS236 | 2019 Fall | Web-Based Teaching and Learning I | | Experience using a web-based learning environment from an online student's perspective. Use communication tools, submit assignments, use evaluation tools, create homepages, and navigate online-learning environment. Introduction to basics of online pedagogy. Hands-on experience with a web-based learning environment. | Prerequisites: A grade of C or better in CIS133DA or permission of Instructor. | | Occ | L+L 2.0 3.0 3.0 | T |
| CIS237 | 2018 Fall | Web-Based Teaching and Learning II | | Create an online or hybrid course using a web-based learning environment. Create, prepare, and manage content and resource files; locate and add resources; and manage a course homepage. Add, delete, and revise tools; create, maintain, and release quizzes and assignments; and manage a course. Track students, data, and revise student grades, submissions, and attendance. Hands-on experience with creating a course using a web-based learning environment | Prerequisites: A grade of C or better in CIS236 or permission of Instructor. | | Occ | L+L 3.0 4.0 4.0 | T |
| CIS238DL | 2018 Fall | Linux System Administration | | Managing Linux Operating Systems including | Prerequisites: A grade of C or better in | | | L+L 3.0 4.0 4.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | sophisticated manipulation of file structures, backup systems, printing processes, troubleshooting, user account management, hard disk maintenance and configuration, process monitoring and prioritizing, kernel customization, and system resource control. Preparation for industry certifications such as the CompTIA Linux+, the Red Hat Certified System Administrator (RHCSA), the Red Hat Certified Engineer (RHCE) and the Linux Professional Institute (LPIC-1). | CIS126DL or CIS126RH or permission of Instructor. | | | | |
| CIS238RH | 2020 Fall | Red Hat System Administration II | | Continue to develop core administration skills needed to manage a Red Hat Enterprise Linux system. This Red Hat Academy course helps to prepare students for the Red Hat certification exams using a hands-on, task-focused curriculum. | Prerequisites: A grade of C or better in CIS126RH, or permission of Instructor. | | | L+L 3.0 4.0 4.0 | T |
| CIS239DL | 2020 Fall | Linux Shell Scripting | | Linux Shell Scripting syntax and methods including the automation of system tasks as well as interpreted user-level programming. Course includes the Linux Borne Again Shell (BASH) as well as a variety of industry competitors. | Prerequisites: A grade of C or better in CIS238DL or CIS238RH or permission of Instructor. | Occ | | L+L 3.0 4.0 4.0 | T |
| CIS240 | 1999 Spring | Local Area Network Planning and Design | | Analysis of the needs and requirements for a local area network (LAN). Emphasis on basic systems analysis and design for a local area network, selection of appropriate hardware and software components. Includes current and future issues, needs analysis, cost | Prerequisites: A grade of C or better in CIS190 or MST140 or permission of Instructor. | Occ | | LEC 3.0 3.0 3.0 | S |



Occ

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | estimation, selection of connectivity and network components, and issues relating to access, security, and support | | | | | |
| CIS240DL | 2020 Fall | Linux Network Administration | | In depth networking based on Linux servers and the Transmission Control Protocol/Internet Protocol (TCP/IP) protocol suite. Integrating Linux servers and workstations into a network environment with multi-platform network operating systems including a variety of open-standard and proprietary protocols. Preparation for industry certifications such as the CompTIA Linux+, the Red Hat Certified System Administrator (RHCSA), the Red Hat Certified Engineer (RHCE) and the Linux Professional Institute (LPIC-1). | Prerequisites: A grade of C or better in CIS238DL or permission of Instructor. | Occ | | L+L 3.0 4.0 4.0 | T |
| CIS240RH | 2020 Fall | Red Hat System Administration III | | Provides solid understanding of how to automate services on a Linux system. Covers use of Ansible to automate provisioning, configuration, application deployment, and orchestration on Red Hat Enterprise Linux 8. Content aligns with the Red Hat Certified Engineer (RHCE - EX294) exam, a professional certification. | Prerequisites: A grade of C or better in CIS238RH or permission of Instructor. | | | L+L 3.0 4.0 4.0 | T |
| CIS243 | 2018 Fall | Internet/Web Development Level III | | Development of interactive websites with graphics, video, and sound using advanced web design techniques and tools. Design theory for maximizing web readership, interactive and multimedia elements, speed and | Prerequisites: A grade of C or better in CIS233DA or permission of Instructor. | Occ | | L+L 3.0 4.0 4.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | accessibility optimization, and intuitive user interfaces | | | | | |
| CIS250 | 2019 Summer | Management of Information Systems | | The study of business information systems and its management, communication, e-business strategies, emerging technologies, database concepts, and project management. Overview of systems analysis and design. Learn about the competitive and strategic uses of information systems and how they are transforming organizations and their management. | Prerequisites: A grade of C or better in CIS105. | | Occ | L+L 3.0 4.0 4.0 | T |
| CIS251 | 2018 Fall | Computer Game Development -Level II | | Advanced object-oriented game development, advanced game design, and advanced game theory. Use of game development software tools to demonstrate advanced concepts for modeling real-time simulations and creating computer games using object oriented development tools. In depth coverage of game programming (scripting) techniques, and decision logic using object oriented techniques. | Prerequisites: A grade of C or better in CIS151 or permission of Instructor. | | Occ | L+L 3.0 4.0 4.0 | T |
| CIS252 | 2022 Fall | Introduction to Kubernetes Administration | | Provides students skills and knowledge to perform the responsibilities of a Kubernetes administrator. Includes covering the cluster architecture, installation, configuration, workloads, scheduling, services, networking, storage and troubleshooting. Helps students prepare for the Certified Kubernetes Administrator (CKA) certification. | Prerequisites: A grade of C or better in CIS238DL or CIS238RH or permission of Instructor. | | Occ | L+L 4.0 5.0 5.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| CIS254 | 2022 Fall | Introduction to Kubernetes Application Development | | Provides students skills and knowledge to perform the responsibilities of a Kubernetes application developer. Helps students prepare for the Certified Kubernetes Application Developer (CKAD) certificate. | Prerequisites: A grade of C or better in CIS126DL or CIS126RH or permission of Instructor. | | Occ | L+L 3.0 4.0 4.0 | T |
| CIS255 | 2022 Fall | Introduction to Kubernetes Security | | Provide students with skills and knowledge on a broad range of best practices for securing container-based applications and Kubernetes platforms during build, deployment, and runtime. Helps students prepare for Kubernetes Security Specialist (CKS) Certification. | Prerequisites: A grade of C or better in CIS252 or permission of Instructor. | | Occ | L+L 3.0 4.0 4.0 | T |
| CIS256 | 2021 Fall | Python Programming Level II | | Advanced Python object-oriented programming concepts and applications. Emphasis on code documenting, versioning, unit testing strategies, and security practices for Python project/package development. Includes Python applications for data analysis, networking, database manipulation, and web application development. | Prerequisites: A grade of C or better in CIS156 or permission of Instructor. | | Occ | L+L 3.0 4.0 4.0 | T |
| CIS256CN | 2022 Fall | Python for Cybersecurity and Networking | | Focus on practical applications of Python frameworks and libraries to support offensive and defensive cybersecurity operations and the management of network devices. | Prerequisites: A grade of C or better in (CIS156 and CNT140AB), or permission of Instructor. | | Occ | L+L 3.0 4.0 4.0 | T |
| CIS256DA | 2022 Spring | Python for Data Analysis | | Introduction to data analysis concepts using Python's rich set of tools, libraries, and packages. Includes basic data analysis, creation of meaningful data visualizations, and advanced topics such as supervised and | Prerequisites: A grade of C or better in CIS156 or permission of Instructor. | | Occ | L+L 3.0 4.0 4.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | unsupervised machine learning techniques. | | | | | |
| CIS259 | 2006 Fall | Visual Basic Programming II | | Use of the Visual Basic programming language to identify and solve advanced problems using suitable examples from business or other disciplines. | Prerequisites: A grade of C or better in CIS159 or permission of Instructor. | | Occ | LEC 3.0 4.0 3.7 | S |
| CIS260BI | 2023 Fall | Data Visualization: Power Business Intelligence (BI) | | This data visualization course covers the graphic representation of data and how to effectively and efficiently communicate it from singular and disparate data sources using Power Business Intelligence (BI). Helps students prepare for the Microsoft Power BI Data Analyst certification. | Prerequisites: A grade of C or better in CIS114DE, CIS215, and (CIS276DA or CIS276DB), or permission of Instructor. | | Occ | L+L 3.0 4.0 4.0 | T |
| CIS260TB | 2023 Fall | Data Visualization: Tableau | | This data visualization course covers the graphic representation of data and how to effectively and efficiently communicate it from singular and disparate data sources using Tableau. Helps students prepare for the Tableau Certified Data Analyst certification. | Prerequisites: A grade of C or better in CIS114DE, CIS215, and (CIS276DA or CIS276DB), or permission of Instructor. | | Occ | L+L 3.0 4.0 4.0 | T |
| CIS261 | 2022 Fall | Hyperledger Blockchain Application Development | | Exploration of the theory behind Hyperledger blockchain technology and the development of Hyperledger smart contracts. In-depth emphasis on programming concepts relating to the creation and eventual deployment of smart contracts to the Hyperledger blockchain. | Prerequisites: A grade of C or better in CIS171 or permission of Instructor. | CIS156, CIS159, CIS162++, CIS163AA, or equivalent skills are recommended. | Occ | L+L 3.0 4.0 4.0 | T |
| CIS262AB | 2018 Fall | C++: Level II | | Advanced level C++ programming with emphasis on arrays, data management, dynamic memory allocation, object-oriented programming concepts, input/output operations, libraries, and | Prerequisites: A grade of C or better in CIS162AB or permission of Instructor. | | Occ | L+L 3.0 4.0 4.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | debugging techniques. Includes overview of other advanced applications of C++. | | | | | |
| CIS262AD | 2018 Fall | C# Level II | | Advanced C# programming with emphasis on data structures, dynamic memory allocation, object-oriented programming, user interfaces, and database processing. Overview of web applications, network programming, and reporting tools | Prerequisites: A grade of C or better in CIS162AD or permission of Instructor. | | Occ | L+L 3.0 4.0 4.0 | T |
| CIS263AA | 2018 Fall | Java Programming: Level II | | Intermediate Java programming. Includes features needed to construct object-oriented programming, multithreading, multimedia, files, streams and data structure | Prerequisites: A grade of C or better in CIS163AA or permission of Instructor. | | Occ | L+L 3.0 4.0 4.0 | T |
| CIS265 | 2018 Fall | Advanced iOS Application Development | | Advanced iOS device programming utilizing the Swift/XCode application, and the programming languages Objective-C and/or Swift, utilizing various iOS frameworks. Understand iOS hardware and feature basics. Go through entire design process from concept to final product delivery. | Prerequisites: A grade of C or better in CIS150++ and CIS165, or permission of Instructor. | | Occ | L+L 3.0 4.0 4.0 | T |
| CIS265DA | 2020 Fall | Advanced Android Application Development | | Advanced Android device programming utilizing an Android Integrated Development Environment, and an Android-focused programming language such as Java or Kotlin, utilizing various advanced activity layouts, views, and intents. Covers advanced Object Oriented Programming (OOP) practices, local and cloud-based database backends, threading, incorporating device features and sensors, and unit testing. | Prerequisites: A grade of C or better in CIS165DA or permission of Instructor. | | Occ | L+L 3.0 4.0 4.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| CIS266 | 2021 Fall | Network Integration Capstone | | Application of project management, installation and troubleshooting to integrate multiple operating systems. Topics include: diagnostic and troubleshooting procedures, security vulnerability and penetration software to installation. | Prerequisites: A grade of C or better in [(CIS238DL or CIS238RH) and (CIS240DL or CIS240RH)], or CNT160AB, or [(MST155DC and MST157DC) and (CIS270 or CIS271DL or CIS271RH or CNT205)], or associated industry certifications, or permission of Instructor. | | Occ | L+L 4.0 5.0 5.0 | T |
| CIS267 | 2023 Fall | Pega System Architect Essentials | | An overview of the Pegasystems low-code platform for Artificial Intelligence (AI)-powered decisioning and workflow automation. Topics covered will include case management, data and integration, security, Dev-Ops, the user experience, application development, reporting, and mobility. The course will prepare you to take the Certified Pega System Architect (CPSA) exam. Completing the CPSA exam is a requirement to pass the course. | Prerequisites: A grade of C or better in (CIS126DL or CIS126RH), CIS133DA, CIS263AA, and CIS276DA or permission of Instructor. | | Occ | L+L 4.0 5.0 5.0 | T |
| CIS270 | 2020 Fall | Essentials of Network and Information Security | | Threats to security of information systems; responsibilities and basic tools for information security, including communication security, infrastructure security, organizational security and basic cryptography. Introduction to the language of network security and hardware, software and firmware components of an information | Prerequisites: A grade of C or better in BPC270 or CIS190 or CNT140AB or MST150++ or permission of Instructor. | | Occ | L+L 3.0 4.0 4.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | security system for local, metropolitan, enterprise, and wide area networks. Helps prepare participants for the Comptia Security+ exam and the GIAC Security Essentials Certificate (GSEC). | | | | | |
| CIS271DL | 2018 Fall | Linux Security | | Implementing in-depth security methods and techniques in a Linux-based network environment. Utilize programs, utilities and configuration techniques to provide user-level, file system, and network security. Gain knowledge in a variety of security cracking techniques and how to guard against them. In all aspects of security, the standard of practicing professional ethics seriously emphasized. Preparation for industry certifications such as the SAIR/GNU LCP and LCA certificates, CompTIA's Linux+, RHCT, RHCE, and LPIC | Prerequisites: A grade of C or better in CIS240DL or Permission of Instructor. | Occ | | L+L 3.0 4.0 4.0 | T |
| CIS271RH | 2021 Fall | Red Hat System Administration IV | | Provides solid understanding on containers, containerized applications, and orchestration of containers using Kubernetes and Red Hat OpenShift on Red Hat Enterprise Linux. | Prerequisites: A grade of C or better in CIS238RH or permission of Instructor. | | | L+L 3.0 4.0 4.0 | T |
| CIS275DL | 2020 Fall | Linux Capstone | | The Linux Capstone course aggregates the skills, knowledge, communication, and critical thinking skills from the Linux Program. This course is to emulate a production environment that prepares students to work as a Linux Systems Administrator. The course helps to prepare students for | Prerequisites: A grade of C or better in CIS240DL, or CIS240RH, or permission of Instructor. | Occ | | L+L 3.0 4.0 4.0 | T |



Occ

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Linux Industry certification exams. | | | | | |
| CIS276DA | 2020 Fall | MySQL Database | | A broad overview of the MySQL database. Includes Structured Query Language (SQL) instruction for data definition, data manipulation, and data retrieval. Develops knowledge and skills required to install MySQL, model and create new databases, manage users, authentication, and stored procedures, and develop backup/restore strategies. | Prerequisites: A grade of C or better in CIS105, or CIS117DM, or permission of Instructor. | | Occ | L+L 3.0 4.0 4.0 | T |
| CIS276DB | 2020 Fall | SQL Server Database | | A broad overview of the Microsoft Structured Query Language (SQL) Server database. Includes SQL instruction for data definition, data manipulation, and data retrieval. Develops knowledge and skills required to install SQL Server, model and create new databases, manage users, authentication, and stored procedures, and develop backup/restore strategies. | Prerequisites: A grade of C or better in CIS105, or CIS117DM, or permission of Instructor. | | Occ | L+L 3.0 4.0 4.0 | T |
| CIS276DC | 2023 Fall | NoSQL | | A broad overview of Not Only SQL (NoSQL) databases. Contrast NoSQL databases to the Structured Query Language (SQL) databases. Includes NoSQL instruction for data definition, data manipulation, and data retrieval. Develops knowledge and skills required to install NoSQL Servers, model and create NoSQL databases, manage users, authentication, and stored procedures equivalents, and develop backup/restore strategies. | Prerequisites: A grade of C or better in CIS215 and (CIS276DA or CIS276DB), or permission of Instructor. | | Occ | L+L 3.0 4.0 4.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| CIS280 | 2018 Fall | Current Topics in Computing | | Critical inquiry of current topics in computing. Application of industry trends to solve problems and/or investigate issues | Prerequisites: None. | | Occ | L+L 3.0 4.0 4.0 | T |
| CIS280AA | 2018 Fall | Current Topics in Computing | | Critical inquiry of current topics in computing. Application of industry trends to solve problems and/or investigate issues | Prerequisites: None. | | Occ | L+L 1.0 2.0 2.0 | T |
| CIS280AB | 2018 Fall | Current Topics in Computing | | Critical inquiry of current topics in computing. Application of industry trends to solve problems and/or investigate issues | Prerequisites: None. | | Occ | L+L 2.0 3.0 3.0 | T |
| CIS282AA | 2023 Fall | Volunteerism for Computer Information Systems: A Service Learning Experience | | Service learning field experience within private/public agencies, educational institution, and citizen volunteer groups. | Prerequisites: Permission of Instructor. | CIS282AA may be repeated for a total of six (6) CIS282 credit hours. Standard grading available according to procedures outlined in catalog. | Occ | LAB 1.0 1.0 0.0 | L |
| CIS284 | 2018 Fall | Certified Internet Web (CIW) Associate Certification Preparation Course | | Explain and implement Internet technologies, network infrastructure, and protocols. Utilize a variety of markup languages and web technologies to design web pages. Utilize job skills such as project management. Explore best practices/issues for web design, publishing, and e-commerce. Prepare for Certified Internet Web (CIW) Associate Examinations. | Prerequisites: A grade of C or better in CIS233DA or permission of Instructor. | | Occ | L+L 4.0 5.0 5.0 | T |
| CIS285 | 2020 Fall | Computer Information Systems Capstone Project | | Students will create a capstone project with opportunities for individualized research and application of aggregate technology and professional knowledge and skills obtained throughout the student's program of study. Focus on communication, problem solving, critical thinking, and project management skills. | Prerequisites: Permission of Program Director or Instructor. | | Occ | L+L 3.0 4.0 4.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| CIS286 | 2020 Fall | Technology Team Peer Mentorship | | Students will have an opportunity to mentor other students and work as a team to develop and support a technology project related to their program of study paralleled by professional expertise and guidance from team members, faculty, and/or industry mentor. Focus on application of technology knowledge to the development of a team project to solve real world technology problems/needs with an innovative technology focus. Focus on the team experience and project and workforce development, management and research, as well as mentoring and collaborative professional behaviors needed to facilitate innovations for profitable commercial feasibility. | Prerequisites: A grade of C or better in EPS151. Corequisites: CIS285. | | Occ | L+L 3.0 4.0 4.0 | T |
| CIS288 | 2018 Fall | Digital Design Portfolio | | Procedures for compiling, evaluating, and selecting prior learning experiences and artifacts for a digital portfolio. Covers techniques for the design, production, and publishing of an online portfolio documenting prior learning. Includes techniques for presenting the digital portfolio for evaluation. | Prerequisites: A grade of C or better in BPC/CIS133DA and (BPC/CIS120DB or BPC/CIS120DF or BPC/CIS138DA) or permission of Instructor. | | Occ | L+L 2.0 3.0 3.0 | T |
| CIS290AA | 2011 Fall | Computer Information Systems Internship | | Work experience in business or industry | Prerequisites: Permission of Instructor. | | Occ | LAB 1.0 6.0 0.0 | C |
| CIS290AB | 2011 Fall | Computer Information Systems Internship | | Work experience in business or industry | Prerequisites: Permission of Instructor. | | Occ | LAB 2.0 12.0 0.0 | C |
| CIS290AC | 2011 Fall | Computer Information Systems Internship | | Work experience in business or industry | Prerequisites: Permission of Instructor. | | Occ | LAB 3.0 18.0 0.0 | C |
| CIS296WB | 2002 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 | | | LAB 2.0 10.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | related to the career objectives of the students. COMMON COMPETENCY COURSE | grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor. | | | | |
| CIS296WC | 2002 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor. | | Occ | LAB 3.0 15.0 0.0 | Z |
| CIS298AA | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student | Prerequisites: Permission of Program Director or Instructor. | | Occ | LAB 1.0 1.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | development. COMMON COMPETENCY COURSE | | | | | |
| CIS298AB | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | Prerequisites: Permission of Program Director or Instructor. | | Occ | LAB 2.0 2.0 0.0 | Z |
| CIS298AC | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | Prerequisites: Permission of Program Director or Instructor. | | Occ | LAB 3.0 3.0 0.0 | Z |
| CIS314 | 2023 Fall | Data Privacy and Integrity | | Overview of data privacy and data integrity, history, concepts, and terminology, and the importance of each in the analytics and programming professions. Discussion of international, national, state and local regulations and guidelines pertaining to data privacy and data integrity. Use of office application software and | Prerequisites: A grade of C or better in CIS215 or permission of Instructor. | | Occ | L+L 3.0 4.0 4.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | current technology. Exploration of relevant and emerging regulations, guidelines, and technologies. | | | | | |
| CIS315 | 2023 Fall | Data Protection | | Overview of data protection concepts and terminology, and the roles of individuals and businesses with respect to the safeguarding of data and the mitigation of data corruption, data compromise and data loss. Use of word processing, spreadsheet, database and presentation software. Will demonstrate and use data protection frameworks, models and relevant tools. | Prerequisites: A grade of C or better in CIS156, CIS162AD, CIS215, and (CIS276DA or CIS276DB), or permission of Instructor. | | Occ | L+L 3.0 4.0 4.0 | T |
| CIS316 | 2023 Fall | Descriptive Analytics | | Study of descriptive analytics and how to apply statistical tools and methods on historical and current datasets and multi-domain cases. Interpret current data, identify changes, trends and commonalities in data, and how to ascertain differences in performance over time while preparing data for advanced analysis. | Prerequisites: A grade of C or better in CIS114DE, CIS215, CIS256DA, and (CIS276DA or CIS276DB), or permission of Instructor. Prerequisites or Corequisites: CIS214DA or permission of Instructor. | | Occ | L+L 3.0 4.0 4.0 | T |
| CIS317 | 2023 Fall | Data Complexity | | Intricacies of enterprise data and how to apply knowledge (background, concepts and experiences from prior courses) and skills (Integrated Development Environment (IDE) tools, and programming languages) on complex integrated and non-integrated disparate datasets, by testing, designing, and creating algorithms that lead to improved decision making. | Prerequisites: A grade of C or better in CIS214DA, CIS215, CIS256DA, CIS260BI, CIS260TB, CIS262AD, and (CIS276DA or CIS276DB), or permission of Instructor. | | Occ | L+L 3.0 4.0 4.0 | T |
| CIS318 | 2023 Fall | Predictive Analytics | | Study of predictive analytics and how to apply statistical tools and methods on | Prerequisites: A grade of C or better in CIS215, CIS256, CIS256DA, | | | L+L 3.0 4.0 4.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | historical and current datasets and multi-domain cases previously analyzed for the purposes of yielding accurate inferential and predictive analytic results. Apply advanced and emergent statistical tools and methods, while modeling practices and processes, that facilitate the maturation of organizational analytic capabilities toward a desired future state. Predict analytical outcomes that are repeatable, and consistent with hypotheses, which lead to improved business decisions. | CIS316 and GBS220, or permission of Instructor. | | | | |
| CIS324 | 2023 Fall | Information Technology Project Management | | Covers the general aspects of project management and emphasizes the important special considerations which apply to information technology projects. Covers principles for managing multiple IT projects and project portfolios, including use of waterfall and agile methodologies. Explores best practices for project management in information technology departments. Includes analysis of budgets, risk management, and cost estimation / justification techniques. | Prerequisites: A grade of C or better in CIS224. | | Occ | LEC 3.0 3.0 3.0 | S |
| CIS350 | 2023 Fall | Advanced Information Technology Management | | Course expands upon fundamental concepts and focuses on management of information technology systems in organizations. Explores management processes and procedures for planning, implementation, and operation of information systems with an emphasis on operational management. | Prerequisites: A grade of C or better in CIS250. | | Occ | LEC 4.0 4.0 4.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Examines real world successes and failures of technology management. Equips students with knowledge of current information technology management and decision support systems. | | | | | |
| CIS360 | 2023 Fall | Data Analysis | | Introduces processes of obtaining, preparing, analyzing and presenting visualized data using appropriate software. Provides an understanding of data interpretation and its practical application in a business. Introduces data governance strategies ensuring data quality throughout the complete lifecycle of the data. Covers data analytics and mining techniques within the context of supporting data-driven decision making. | Prerequisites: A grade of C or better in CIS156, CIS215, and ((MAT140 or MAT141 or MAT142 or MAT145 or MAT146), or higher level mathematics course, or appropriate district placement). | Occ | | LEC 4.0 4.0 4.0 | S |
| CIS376 | 2023 Fall | Database Management and Security | | Overview of the functional areas, concepts and techniques of database management and security. Topics include business and regulatory requirements, database architecture and design, access control, retrieval concepts, data auditing, incident response and optimal database system performance, security and availability. Explores new directions in database management and security. | Prerequisites: A grade of C or better in CIS119DO, or CIS276DA, or CIS276DB. | Occ | | LEC 4.0 4.0 4.0 | S |
| CIS390 | 2023 Fall | Network Management | | Course explores principles of network management architecture within the Information Technology (IT) life cycle, including network management principles; network design and optimal | Prerequisites: A grade of C or better in CIS105, and (CNT140AB or CIS190). | | | LEC 4.0 4.0 4.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | performance; network maintenance, common problems and solutions; business practices in network management; and effective stakeholder communication. Students will work individually and in teams to evaluate and design network systems and solutions to address business problems and end user needs. | | | | | |
| CIS411 | 2023 Fall | Ethics, Regulations, and Legal Issues in Information Technology | | Covers ethical and regulatory issues in information technology (IT) and creates a foundation for analyzing and addressing evolving legal concerns. Provides an overview of laws concerning computer and network security, business policy, and legal boundaries for systems authorization. Examines ethical, legal, and professional ramifications on leadership practices in an organization's technology environment. | Prerequisites: A grade of C or better in CIS111 or ITS120. | Occ | | LEC 3.0 3.0 3.0 | S |
| CIS415 | 2023 Fall | Big Data | | Study of the fundamentals and characteristics of Big Data. Evaluation of existing Big Data processing platforms and tools. Developing skills to handle and implement Big Data projects, including machine learning concepts. | Prerequisites: A grade of C or better in CIS256, CIS256DA, CIS262AD and CIS318, or permission of Instructor. | | | L+L 3.0 4.0 4.0 | T |
| CIS416 | 2023 Fall | Presentation of Analytics and Programming Results and Solutions | | Use of data analytic tools, programming methods, nominal (components/elements), and ordered steps to proficiently and effectively deliver comprehensive results and understanding, ranging from simple to complex data. Guide technical and non-technical audiences in understanding data and establish | Prerequisites: A grade of C or better in CIS256, CIS260BI, CIS260TB, CIS262AD, (CIS276DA or CIS276DB), CIS317, and CIS318, or permission of Instructor. | Occ | | L+L 3.0 4.0 4.0 | T |



Occ

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | opportunities for the audience to believe it. Mitigate the problems that can be caused by poor decision making due to mis-understandings, mis-interpretations, mis-representations and disconnections among organizational members with respect to the meaning of results. | | | | | |
| CIS470 | 2024 Fall | Enterprise Cyber Security | | Provides overview of various concepts and principles in information technology (IT) security and the management of IT security plans to mitigate information security (IS/IT) related security risks. Covers evaluation of cybersecurity plans and policies and the impact of laws, regulations, and codes of professional behavior with respect to cybersecurity. Includes preparation of responses to cybersecurity incidents and overview of various concepts of IT security. | Prerequisites: A grade of C or better in CIS270. | | Occ | LEC 4.0 4.0 4.0 | S |
| CIS475 | 2023 Fall | Emerging Trends in Information Technology | | Course focuses on identification of and research in the emerging trends in Information Technology (IT). Selected topics could be within the areas of Kubernetes, Edge Computing, Ethics in Artificial Intelligence (AI), Blockchain, Automation and AI, Telehealth Solutions, Internet of Things (IoT), Augmented Reality, Hyperautomation, Development Operations (DevOp), 5G, and/or other emerging issues. Course includes discussion of contemporary topics, research | Prerequisites: A grade of C or better in (CIS190 or CNT140AB) and CIS270. | Occ | | LEC 4.0 4.0 4.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | in selected areas, and course projects related to student interests. | | | | | |
| CIS480 | 2023 Fall | Data Analytics and Programming Capstone | | Capstone project with opportunities for individualized research and application of aggregate technology and professional knowledge and skills obtained throughout the student's program of study. Focus on communication, problem solving, critical thinking, and project management skills. | Prerequisites: A grade of C or better in CLD120, CIS216, CIS224, CIS256, CIS262AD, CIS260BI, CIS260TB, (CIS276DA or CIS276DB), CIS315, CIS317, and CIS318, or permission of Instructor. | | Occ | L+L 3.0 4.0 4.0 | T |
| CIS490 | 2023 Fall | Applied Data Analytics and Programming Internship | | Work experience in business or industry with an emphasis on data analytics and programming for business, not-for-profit, or industry. Application and aggregate of technical knowledge, communication, problem solving, and critical thinking with a data analytics and programming focus. | Prerequisites: Enrollment in final semester before award completion and permission of Department/Division Chair, or Program Director or Instructor. | | Occ | LAB 3.0 3.0 0.0 | C |
| CLD110 | 2021 Summer | Amazon Web Services Cloud Foundations | | Provides a detailed overview of cloud concepts, Amazon Web Services (AWS) core services, security, architecture, pricing, and support. Intended for students who seek an overall understanding of cloud computing concepts, independent of specific technical roles. Helps to prepare students for the AWS Certified Cloud Practitioner exam. | Prerequisites: None. CIS105 suggested but not required. | Occ | | L+L 3.0 4.0 4.0 | T |
| CLD120 | 2021 Summer | Amazon Web Services Cloud Architect Associate | | Fundamentals of building IT infrastructure on Amazon Web Services (AWS). Focus on how to optimize use of the AWS Cloud by understanding AWS services and best practices for the AWS Cloud | Prerequisites: A grade of C or better in CLD110 or permission of Instructor. | | Occ | L+L 3.0 4.0 4.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | and how they fit into cloud-based solutions. Covers design patterns for architecting optimal IT solutions on AWS, as well as strategies and services implemented on AWS. | | | | | |
| CLD130 | 2022 Spring | Amazon Web Services Cloud Developing | | Designed to provide technical knowledge and skills in cloud technology that can be developed with Amazon Web Services (AWS) software development kit (SDK). Focus on best practices for building and deploying secure applications in the AWS Cloud. Helps to prepare students for the AWS Certified Developer - Associate examination. | Prerequisites: A grade of C or better in CLD120 or equivalent AAWS Certified Solutions Architect - Associate certification. CLD110 and CNT140AB recommended. | Knowledge of at least one programming language, such as Python, C++, JavaScript, Ruby, C# (C-Sharp), is recommended. | Occ | L+L 3.0 4.0 4.0 | T |
| CLD140 | 2022 Spring | Amazon Web Services Cloud Operations | | Designed to provide technical information and skills required to implement automatable and repeatable deployments of networks and systems on Amazon Web Services (AWS). Describes specific AWS features and tools related to configuration and deployment. Emphasis on best practices in the AWS Cloud and recommended design patterns, problem-solving and troubleshooting. Helps prepare students for the AWS Certified SysOps Administrator - Associate exam. | Prerequisites: A grade of C or better in CLD120 or equivalent AAWS Certified Solutions Architect - Associate certification. CLD110 and CNT140AB recommended. | Knowledge of at least one programming language, such as Python, C++, JavaScript, Ruby, C# (C-Sharp), is recommended. | Occ | L+L 3.0 4.0 4.0 | T |
| CLD417 | 2023 Fall | Cloud Analytics | | Conduct cloud analysis with practical, real-world examples. Analyze data sets and create visual representation of that data, using a case-study approach. Hands-on experience working with cloud data at scale. | Prerequisites: A grade of C or better in CLD120, CIS215, CIS156, CIS162AD, CIS260BI, CIS260TB, and (CIS276DA or CIS276DB), or permission of Instructor. | | Occ | L+L 3.0 4.0 4.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| CNS102 | 2012 Spring | Foundations for Apprenticeship | | The demographics and industry projections of the building and construction trades. Structure and purpose of registered apprenticeship. Apprenticeship roles and responsibilities. Overview of fluctuation in employment and finances inherent to the construction trades. Emphasis on preparation for periods of high and low employment debt management within registered apprenticeship. | Prerequisites: None. | | Occ | LEC 1.0 1.0 1.0 | S |
| CNS110 | 2011 Fall | Green Construction Overview | | Overview of 'green construction'. Green energy vs. green building, U.S. Green Building Council (USGBC) and the building life cycle, five main areas of green building standards, Leadership in Energy and Environmental Design (LEED) accreditation, and LEED certification. | Prerequisites: Registered apprentice status or permission of the Apprenticeship Coordinator. | | Occ | LEC 0.5 0.5 0.5 | S |
| CNS182 | 2017 Summer | Construction Estimating and Print Reading | | Analysis and interpretation of construction drawings (blueprint reading); interpretation of symbols, annotations, conventions, and terms of trade. Emphasizes learning quantities of material, equipment, and labor for a construction project. Includes a focus on procedures used to apply timely unit costs. Covers Occupational Safety and Health Administration (OSHA) Safety Standards and their impact on construction cost. | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| CNS200 | 2018 Fall | Construction Management: Field Operation | | Procedures and methods used by construction contractors to manage field operation during various phases of a project. Includes project team, job scheduling, personnel relations, use of the | Prerequisites: A grade of C or better in CON181 and CON244, or permission of Department or Division. | | | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | construction documentation on site, inspection techniques, safety issues, scope and supervision of the overall construction process. | | | | | |
| CNS201 | 2018 Fall | Construction Management: Office Operation | | Skills and techniques required to manage construction office operations. Includes establishing and financing the business, marketing, office operations, and maintaining relationships with other construction industry entities through a systematic planning approach. | Prerequisites: A grade of C or better in (CON130, CON181, and CON244), or permission of Department or Division. | | | LEC 3.0 3.0 3.0 | S |
| CNS205 | 2010 Fall | Sustainable Construction/LEED Certification | | Fundamentals of major components of sustainable design and construction, including energy, health care facilities, cultural and natural resources, and other environmental and economic issues of sustainable built environments. Importance of a collaborative team effort with owner, developers, architects, engineers, and constructors will be integrated into the course. Issues impacting schedule and budgets of sustainable construction projects will be analyzed. Prepares student for the Leadership in Energy and Environmental Design (LEED) Certification Exam. | Prerequisites: None. | Occ | Occ | LEC 3.0 3.0 3.0 | S |
| CNS230 | 2018 Fall | Computer Aided Design and Drafting (CADD) 3D for Construction & Architecture (CADD II) | | Design, construction, and annotation of three-dimensional objects for construction and architecture industries using AutoCAD software. | Prerequisites: A grade of C or better in COM130 or permission of Department or Division. | | | L+L 3.0 6.0 6.0 | T |
| CNS240 | 2018 Fall | Advanced Computer Aided Design and Drafting (CADD) for Construction & Architecture (CADD III) | | Use of advanced AutoCAD two- and three-dimensional commands along with various customization codes and | Prerequisites: A grade of C or better in CNS230 or permission | | | L+L 3.0 6.0 6.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | techniques specific to architecture and construction industries | of Department or Division. | | | | |
| CNS250 | 2018 Fall | Civil Drafting I: Civil 3D | | Application of civil drafting software (Civil 3D) for civil drafting and surveying. Use of coordinating geometry and survey point databases to create topographical maps. Interpreting and delineating topographical data and maps for site and route work. Applying the basics of coordinate geometry (COGO) to surveying language. | Prerequisites: A grade of C or better in CON130 or permission of Department or Division. | | | L+L 3.0 6.0 6.0 | T |
| CNS251 | 2018 Fall | Civil Drafting II: Civil 3D | | Advanced knowledge and skill in using civil drafting software (Civil 3D) in right-of-way improvement. Use of base maps in utility and street improvement; use of street improvements in creation of maps and profiles; use of map and profiles in utility improvements. | Prerequisites: A grade of C or better in CNS250, or permission of Department or Division. | Occ | | L+L 3.0 6.0 6.0 | T |
| CNS252 | 2018 Fall | Civil Drafting III: Civil 3D | | Use of civil drafting software (Civil 3D) for site development. Includes use of engineering and surveying software in analysis and computation of earthwork and creation of site drawings. | Prerequisites: A grade of C or better in CNS251, or permission of Department or Division. | Occ | | L+L 3.0 6.0 6.0 | T |
| CNS271 | 2018 Fall | Home Inspection Structure | | Home inspection practices for foundation, footings, roof, and framework, including floor, wall, and ceiling. Covers structural considerations and reporting practices. | Prerequisites: A grade of C or better in (CON244 and CON262) or permission of Department or Division. | | | LEC 3.0 3.0 3.0 | S |
| CNS272 | 2018 Fall | Home Inspection Plumbing, Electrical and HVAC | | Home inspection practices for plumbing, electrical, heating, cooling, and air conditioning, and defects of exposed parts of these systems in a house structure. Includes components of systems and reporting practices. | Prerequisites: A grade of C or better in CON244 and CON262, or permission of Department or Division. | Occ<br>Occ | | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| CNS273 | 2018 Fall | Home Inspection: Insulation and Interiors | | Home inspection practices for insulation and interiors, including walls, ceilings, floors, windows, and doors, and their possible defects. Covers reporting practices. | Prerequisites: A grade of C or better in CON244 and CON272, or permission of Department or Division. | | | LEC 3.0 3.0 3.0 | S |
| CNS274 | 2018 Fall | Home Inspection: Roofing and Exteriors | | Home inspection practices for roofing and exteriors of a house, and their defects. Covers reporting practices. | Prerequisites: A grade of C or better in (CON244 and CON262) or permission of Department or Division. | | | LEC 3.0 3.0 3.0 | S |
| CNS282AA | 2004 Spring | Volunteerism for Construction: A Service Learning Experience | | Service-learning field experience within private/public agencies and citizen volunteer groups. | Prerequisites: Permission of Department or Division. | CNS282AA may not repeat specific assignment for more than three (3) credit hours. Standard grading available according to procedures outlined in college catalog. | Occ | LAB 1.0 1.0 0.0 | L |
| CNS282AB | 2004 Spring | Volunteerism for Construction: A Service Learning Experience | | Service-learning field experience within private/public agencies and citizen volunteer groups. | Prerequisites: Permission of Department or Division. | CNS282AB may not repeat specific assignment for more than three (3) credit hours. Standard grading available according to procedures outlined in college catalog. | Occ | LAB 2.0 2.0 0.0 | L |
| CNS282AC | 2004 Spring | Volunteerism for Construction: A Service Learning Experience | | Service-learning field experience within private/public agencies and citizen volunteer groups. | Prerequisites: Permission of Department or Division. | Standard grading available according to procedures outlined in college catalog. | Occ | LAB 3.0 3.0 0.0 | L |
| CNS285 | 2018 Fall | Introduction to Residential Plan Review | | Application of international model code (building, mechanical, plumbing, and electrical) to contract documents for one- and two-family dwelling residential construction. | Prerequisites: A grade of C or better in (CON244 and CON262) or permission of Department or Division. | | | LEC 3.0 3.0 3.0 | S |
| CNS286 | 2018 Fall | Introduction to Commercial Plan Review | | Application of international model codes (building, mechanical, plumbing, and electrical) to contract documents for commercial construction. | Prerequisites: A grade of C or better in (CON244 and CON263) or permission of Department or Division. | | | LEC 3.0 3.0 3.0 | S |
| CNS290AA | 2019 Spring | Construction Internship | CON290AA | Construction internship office/field experience with private/public agencies or citizen volunteer groups. Eighty (80) hours of designated work experience. | Prerequisites: Permission of Department or Division. | CNS290AA may be repeated for a total of three (3) credits. Standard grading available according to procedures outlined in college catalog. | Occ | LAB 1.0 6.0 0.0 | C |



Occ

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| CNS290AB | 2019 Spring | Construction Internship | CON290AB | Construction internship office/field experience with private/public agencies or citizen volunteer groups. One hundred and sixty (160) hours of designated work experience. | Prerequisites: Permission of Department or Division. | Standard grading available according to procedures outlined in college catalog. | Occ | LAB 2.0 12.0 0.0 | C |
| CNS290AC | 2019 Spring | Construction Internship | CON290AC | Construction internship office/field experience with private/public agencies or citizen volunteer groups. Two hundred and forty (240) hours of designated work. | Prerequisites: Permission of Department or Division. | Standard grading available according to procedures outlined in college catalog. | Occ | LAB 3.0 18.0 0.0 | C |
| CNS290AE | 2009 Fall | Construction Internship | | Construction internship office/field experience with private / public agencies or citizen volunteer groups. | Prerequisites: Permission of Department or Division. | | | LAB 5.0 25.0 0.0 | P |
| CNS296WA | 2007 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and ability to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor. | Occ | Occ | LAB 1.0 5.0 0.0 | Z |
| CNS296WB | 2007 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and ability to obtain a position related to students academic or career goals (students present job may qualify or permission of | COMMON COMPETENCY COURSE | Occ | LAB 2.0 10.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor. | | | | |
| CNS296WC | 2007 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and ability to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor. | | Occ | LAB 3.0 15.0 0.0 | Z |
| CNS296WD | 2007 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and ability to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor. | COMMON COMPETENCY COURSE | Occ | LAB 4.0 20.0 0.0 | Z |
| CNS298AA | 2007 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured | Prerequisites: Permission of Program Director or Instructor. | | Occ | LAB 1.0 1.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | | | | | |
| CNS298AB | 2007 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | Prerequisites: Permission of Program Director or Instructor. | | Occ | LAB 2.0 2.0 0.0 | Z |
| CNS298AC | 2007 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | Prerequisites: Permission of Program Director or Instructor. | | Occ | LAB 3.0 3.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| CNT140AB | 2020 Fall | Introduction to Networks | | Focus on the architecture, structure, functions, components, and models of the Internet and other computer networks. Principles and structure of IP addressing and the fundamentals of Ethernet concepts, media, and operations are introduced. Students will build simple LANs, perform basic configurations for routers and switches, and implement IP addressing schemes. Preparation for Cisco certification examination. | Prerequisites: None. | | Occ | L+L 4.0 6.0 6.0 | T |
| CNT150AB | 2020 Fall | Switching, Routing, and Wireless Essentials | | Focus on configuring switches and routers for use in small and medium size networks. Including Virtual Local Area Networks (VLANs), VLAN trunking, Inter-VLAN routing, Spanning Tree Protocol (STP), EtherChannel, Dynamic Host Configuration Protocol (DHCP), First Hop Redundancy, Local area Network (LAN) and Switch security, and Static routing. Knowledge and skills needed to implement a Wireless Local Area Network (WLAN) is also covered. Preparation for Cisco certification examination. | Prerequisites: A grade of C or better in CNT140AB or permission of Instructor. | | Occ | L+L 4.0 6.0 6.0 | T |
| CNT160AB | 2020 Fall | Enterprise Networking, Security, and Automation | | Focus on the configuration of routers and switches within small and medium size networks for advanced functionality including Open Shortest Path First (OSPF), Network security, Access Control Lists (ACLs), Network Address Translation (NAT), Wide Area Network (WAN) concepts, Virtual Private Networks (VPNs), Quality of | Prerequisites: A grade of C or better in CNT150AB or permission of Instructor. | | Occ | L+L 4.0 6.0 6.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Service (QOS), network management, design, troubleshooting, virtualization, and automation. Preparation for Cisco certification examination. | | | | | |
| CNT168 | 2018 Fall | CCNA Discovery - Designing and Supporting Computer Networks | | Networking design and customer support including gathering requirements, designing basic networks, establishing proof- of-concept, and performing project management tasks. Lifecycle services, including upgrades, competitive analyses, and system integration, in the context of pre-sale support | Prerequisites: A grade of C or better in CNT158. | | | L+L 4.0 6.0 6.0 | T |
| CNT171 | 2021 Spring | CCNA Exam Prep | | Preparation for renewal of CCNA certification by reviewing the Open Systems Interconnection (OSI) model and industry standards including network topologies, IP addressing, subnet masks, access control list, basic network design and cable installation. Practice the skills to configure, customize, maintain and troubleshoot Cisco routers and switches for Local Areas Networks (LANs) and Wide Area Networks (WANs) using Cisco IOS command set. Review any new material introduced since the last CCNA exam version. | Prerequisites: A grade of C or better in CNT160AB, or Cisco Certified Network Associate (CCNA) certification, or permission of Instructor. | Occ<br><br>Occ | | L+L 1.0 2.0 2.0 | T |
| CNT202 | 2021 Spring | Cisco Secure Firewall Appliance Configuration | | Applications of Cisco Networking technologies in designing and implementing security solutions to reduce risk of revenue loss and vulnerability. Hands-on experience and skills in security policy design and management, security technologies, products and | Prerequisites: A grade of C or better in CNT160AB or permission of Instructor. | | | L+L 4.0 5.0 5.0 | T |



Occ

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | solutions, secure firewall design, installation, configuration and maintenance, Authentication, Authorization, and Accounting (AAA), Failover, and Virtual Private Network (VPN) implementation using firewalls. | | | | | |
| CNT203 | 2020 Fall | CCNA Cybersecurity Operations | | Uses virtual environments to simulate real-world cybersecurity threat scenarios and create opportunities for practice with ethical hacking, security monitoring, analysis and resolution. Introduces current technical concepts, such as classification of network attacks, monitoring, analysis of network intrusion data, cryptography, prevention and mitigation of network attacks and application of incident response models to manage network security incidents. | Prerequisites: A grade of C or better in CNT150AB or permission of Instructor. | CNT203 is designed to help students prepare for the Cisco Certified Network Associate (CCNA) Cybersecurity Operations Certification examination. | Occ | L+L 4.0 6.0 6.0 | T |
| CNT205 | 2021 Spring | Cisco Certified Network Associate Security | | Associate-level knowledge and skills required to secure Cisco networks. Development of a security infrastructure, identification of threats and vulnerabilities to networks. Mitigation of security threats. Core security technologies. Installation, troubleshooting and monitoring of network devices to maintain integrity, confidentiality and availability of data and devices. Competency in the technologies that Cisco uses in its security structure. | Prerequisites: A grade of C or better in CNT160AB, or Cisco Certified Network Associate (CCNA) certification, or permission of Instructor. | Occ | | L+L 4.0 6.0 6.0 | T |
| CNT206 | 2021 Spring | Cisco Certified Network Associate Wireless | | Associate-level knowledge and skills required in Cisco wireless networks. Includes comprehensive hands-on labs | Prerequisites: A grade of C or better in CNT160AB or permission of Instructor. | Prepares students to earn Cisco Certified Network Associate Wireless (CCNA Wireless) designation by taking | Occ | L+L 4.0 6.0 6.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | to design, plan, implement, operate, secure, and troubleshoot wireless networks. | | the Implementing Cisco Unified Wireless Networks Essentials (IUWNE) exam. | | | |
| CNT240 | 2020 Fall | Cisco Certified Network Professional: Enterprise Core | | Provides Cisco Certified Network Professional (CCNP) Enterprise knowledge and skills needed for professional-level networking technologies and architecture. Topics include virtualization, network assurance, security, and automation. Helps to prepare students to take the Cisco Enterprise Network Core Technologies (ENCOR) certification exam aligned with the CCNP Enterprise, CCIE Enterprise Infrastructure, CCIE Enterprise Wireless, and Cisco Certified Specialist - Enterprise core certifications. | Prerequisites: A grade of C or better in CNT160AB, or Cisco Certified Network Associate (CCNA) industry certification, or permission of Instructor. | Preparation for Cisco Certified Network Professional (CCNP) ENCOR exam. | Occ | L+L 8.0 12.0 12.0 | T |
| CNT240AA | 2020 Fall | Cisco Certified Network Professional: Enterprise Core I | | Provides Cisco Certified Network Professional (CCNP) Enterprise knowledge and skills needed for professional-level networking technologies and architecture. Topics include virtualization, network assurance, security, and automation. Helps to prepare students to take the Cisco Enterprise Network Core Technologies (ENCOR) certification exam aligned with the CCNP Enterprise, CCIE Enterprise Infrastructure, CCIE Enterprise Wireless, and Cisco Certified Specialist - Enterprise core certifications. | Prerequisites: A grade of C or better in CNT160AB, or Cisco Certified Network Associate (CCNA) industry certification, or permission of Instructor. | Preparation for Cisco Certified Network Professional (CCNP) ENCOR exam. | Occ | L+L 4.0 6.0 6.0 | T |
| CNT240AB | 2020 Fall | Cisco Certified Network Professional: Enterprise Core II | | Provides Cisco Certified Network Professional (CCNP) Enterprise knowledge and skills needed for professional-level networking technologies and architecture. Topics | Prerequisites: A grade of C or better in CNT240AA. | Preparation for Cisco Certified Network Professional (CCNP) ENCOR exam. | Occ | L+L 4.0 6.0 6.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | include virtualization, network assurance, security, and automation. Helps to prepare students to take the Cisco Enterprise Network Core Technologies (ENCOR) certification exam aligned with the CCNP Enterprise, CCIE Enterprise Infrastructure, CCIE Enterprise Wireless, and Cisco Certified Specialist - Enterprise core certifications. | | | | | |
| CNT250 | 2020 Fall | Cisco Certified Network Professional: Enterprise Advanced Routing and Services | | Provides Cisco Certified Network Professional (CCNP) Enterprise advanced knowledge and skills needed for professional-level networking technologies and architecture. Covers the implementation and troubleshooting of advanced routing technologies and services including Layer 3 VPN services, infrastructure security, and infrastructure services. Helps to prepare students to take the Implementing Cisco Enterprise Network Advanced Routing and Services (ENARSI) certification exam aligned with the CCNP Enterprise, Cisco Certified Specialist - Advanced Infrastructure Implementation certifications. | Prerequisites: A grade of C or better in CNT160AB, or Cisco Certified Network Associate (CCNA) industry certification, or permission of Instructor. | Occ | | L+L 8.0 12.0 12.0 | T |
| CNT250AA | 2020 Fall | Cisco Certified Network Professional: Enterprise Advanced Routing and Services I | | Provides Cisco Certified Network Professional (CCNP) Enterprise advanced knowledge and skills needed for professional-level networking technologies and architecture. Covers the implementation and troubleshooting of advanced routing technologies and | Prerequisites: A grade of C or better in CNT160AB, or Cisco Certified Network Associate (CCNA) industry certification, or permission of Instructor. | | | L+L 4.0 6.0 6.0 | T |



Occ

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | services including Layer 3 VPN services, infrastructure security, and infrastructure services. Helps to prepare students to take the Implementing Cisco Enterprise Network Advanced Routing and Services (ENARSI) certification exam aligned with the CCNP Enterprise, Cisco Certified Specialist - Advanced Infrastructure Implementation certifications. | | | | | |
| CNT250AB | 2020 Fall | Cisco Certified Network Professional: Enterprise Advanced Routing and Services II | | Provides Cisco Certified Network Professional (CCNP) Enterprise advanced knowledge and skills needed for professional-level networking technologies and architecture. Covers the implementation and troubleshooting of advanced routing technologies and services including Layer 3 VPN services, infrastructure security, and infrastructure services. Helps to prepare students to take the Implementing Cisco Enterprise Network Advanced Routing and Services (ENARSI) certification exam aligned with the CCNP Enterprise, Cisco Certified Specialist - Advanced Infrastructure Implementation certifications. | Prerequisites: A grade of C or better in CNT250AA. | | Occ | L+L 4.0 6.0 6.0 | T |
| COM080 | 1999 Summer I | Conversation Circles | | Practice in conversing in English for non-native speakers. Emphasis in developing conversational techniques to facilitate building and maintaining relationships. | Prerequisites: None. | COM080 may be repeated for a total of six (6) credit hours. | Acad | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| COM095 | 1998 Fall | Basic Oral Communication Skills | | Listening, speaking, and related academic performance skills, including note taking. Emphasis on activities designed to improve and synthesize these skills | Prerequisites: None. | | Acad | LEC 3.0 3.0 3.0 | S |
| COM100 | 2018 Fall | Introduction to Human Communication | | Introduces the theory and practice of human communication. Surveys communication topics related to interpersonal, small group, and public communication. | Prerequisites: None. | Course Attribute(s): General Education Designation: Social and Behavioral Sciences - [SB] Arizona Shared Unique Number SUN#: COM 1100 | Acad | LEC 3.0 3.0 3.0 | S |
| COM100AA | 2018 Fall | Introduction to Human Communication Part I | | Introduces the theory and practice of human communication. Surveys communication topics related to interpersonal, small group, and public communication. | Prerequisites: None. | Course Attribute(s): General Education Designation: Social-Behavioral Sciences - [SB] in combination with: COM100AB and COM100AC. | Acad | LEC 1.0 1.0 1.0 | S |
| COM100AB | 2018 Fall | Introduction to Human Communication Part II | | Introduces the theory and practice of human communication. Surveys communication topics related to interpersonal, small group, and public communication. | Prerequisites: None. | Course Attribute(s): General Education Designation: Social-Behavioral Sciences - [SB] in combination with: COM100AA and COM100AC. | Acad | LEC 1.0 1.0 1.0 | S |
| COM100AC | 2018 Fall | Introduction to Human Communication Part III | | Introduces the theory and practice of human communication. Surveys communication topics related to interpersonal, small group, and public communication. | Prerequisites: None. | Course Attribute(s): General Education Designation: Social-Behavioral Sciences - [SB] in combination with: COM100AA and COM100AB. | Acad | LEC 1.0 1.0 1.0 | S |
| COM101 | 2023 Fall | Interpersonal Communication in the Workplace | | Elements and functions of communication; perception of self and others; verbal and nonverbal communication; listening skills; effective verbal responses; communicating ideas and feelings; role of communication in relationships with others. | Prerequisites: None. | | Acad | LEC 1.0 1.0 1.0 | S |
| COM102 | 2023 Fall | Group Discussion in the Workplace | | Concept of a decision-making group; role requirements in group discussion; characteristics and responsibilities of small-group leaders; tools for problem | Prerequisites: None. | | Acad | LEC 1.0 1.0 1.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | solving in a group; presenting proposals to management. | | | | | |
| COM105 | 1995 Fall | Relational Communication/ Senior Adults | | Communication skills as they apply to personal relationships of older adults. Student's assessment of their individual communication skills in relations with family members, social and business acquaintances, and friends | Prerequisites: None. | | Acad | LEC 1.0 1.0 1.0 | S |
| COM110 | 2014 Spring | Interpersonal Communication | | Theory and practice of communication skills which affect day-to-day interactions with other persons. Topics may include using verbal and nonverbal symbols, interactive listening, resolving interpersonal conflict, developing and maintaining personal and professional relationships | Prerequisites: None. | Course Attribute(s): General Education Designation: Social and Behavioral Sciences - [SB] Arizona Shared Unique Number SUN#: COM 1110 | Acad | LEC 3.0 3.0 3.0 | S |
| COM110AA | 1995 Fall | Interpersonal Communication Part I | | Theory and practice of communication skills which affect day-to- day interactions with other persons. Topics may include using verbal and nonverbal symbols, interactive listening, resolving interpersonal conflict, developing and maintaining personal and professional relationships | Prerequisites: None. | Course Attribute(s): General Education Designation: Social and Behavioral Sciences - [SB] in combination with: COM110AB and COM110AC | Acad | LEC 1.0 1.0 1.0 | S |
| COM110AB | 1995 Fall | Interpersonal Communication Part II | | Theory and practice of communication skills which affect day-to- day interactions with other persons. Topics may include using verbal and nonverbal symbols, interactive listening, resolving interpersonal conflict, developing and maintaining personal and professional relationships | Prerequisites: None. | Course Attribute(s): General Education Designation: Social and Behavioral Sciences - [SB] in combination with: COM110AA and COM110AC | Acad | LEC 1.0 1.0 1.0 | S |
| COM110AC | 1995 Fall | Interpersonal Communication Part III | | Theory and practice of communication skills which affect day-to-day interactions | Prerequisites: None. | Course Attribute(s): General Education Designation: Social and Behavioral Sciences - [SB] | Acad | LEC 1.0 1.0 1.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | with other persons. Topics may include using verbal and nonverbal symbols, interactive listening, resolving interpersonal conflict, developing and maintaining personal and professional relationships | | in combination with: COM110AA and COM110AB | | | |
| COM120 | 2003 Fall | Pronunciation of American Speech | | Analysis of American speech production problems due to accents produced by another language, correction of misarticulated American speech sounds, critical listening to sound production, understanding American English speech patterns, practicing American idioms and expressions, and preparing and delivering group and individual speech presentations | Prerequisites: None. | | Acad | LEC 3.0 3.0 3.0 | S |
| COM125 | 1995 Fall | Presentational Speaking | | Techniques for developing oral presentations which include visual media. Principles of verbal message development and related visual design stressed. Techniques of managing the presentational environment including question and answer periods and the operation of common equipment | Prerequisites: None. | | Acad | LEC 3.0 3.0 3.0 | S |
| COM145 | 2018 Fall | Digital Storybook | ART145 STO145 | Enables students to find and develop a narrative representing an aspect of their personal histories. Use of digital technology to produce and archive a storybook | Prerequisites: None. | | Acad | L+L 1.0 2.0 2.0 | T |
| COM150 | 2018 Fall | Digital Storytelling | ART150 STO150 | Enables students to find and develop their personal stories. Emphasis on the use of digital technology to create, edit, produce and archive a digital story | Prerequisites: None. | | Acad | L+L 3.0 6.0 6.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| COM163 | 2009 Fall | Intercultural Communication in Everyday Life | | Provides knowledge to promote greater understanding and application of intercultural communication in social and organizational interactions. For advanced non-native English speakers. | Prerequisites: Appropriate English placement test score at the ENG101 or ENG107 level or a grade of C or better in ENG091 or ESL097 or permission of Instructor. | Course Attribute(s): General Education Designation: Cultural Diversity - [C] General Education Designation: Global Awareness - [G] General Education Designation: Social and Behavioral Sciences - [SB] | Acad | LEC 3.0 3.0 3.0 | S |
| COM177 | 2023 Fall | Experiential Group Activities Facilitation | | Communication skills, tools, and strategies used to lead experiential learning activities. Designed to enhance the student's ability to facilitate experiential group learning activities. | Prerequisites: None. | | Acad | LEC 3.0 3.0 3.0 | S |
| COM181 | 2021 Fall | Conflict Mediation | | Develop communication skills necessary to conduct mediation in formal and informal settings. Applies principles and theories of message production and responding, listening, questioning, source and receiver factors, and emotion to conflict management communication. Emphasis on respecting diversity and empowering joint problem solving throughout | Prerequisites: None. | | Acad | LEC 3.0 3.0 3.0 | S |
| COM207 | 2009 Summer I | Introduction to Communication Inquiry | | Overview of theory and methodological practice in communication with particular attention to scholarly writing skills. Emphasis on development of critical thinking skills through active participation in the research process. | Prerequisites: A grade of C or better in ENG101 or ENG107 or equivalent and COM100 or equivalent or permission of Instructor. | COM207 is recommended for the communication major. | Acad | LEC 3.0 3.0 3.0 | S |
| COM215 | 1995 Fall | Listening | | Emphasis on diagnosis of individual listening, corrective procedures, and reinforcement of improved habits through normal and speeded listening drills. Includes everyday communication experiences | Prerequisites: None. | | Acad | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| COM221 | 2011 Fall | Oral Fluency in American Speech | | Designed for English Language Learner (ELL) students to develop greater oral fluency in spontaneous speaking contexts and presentational speaking. Emphasis on development of speech, language, and vocal clarity; basic skills in presentational speaking; and use of English to interact spontaneously with others. | Prerequisites: A grade of C or better in COM120 or permission of Instructor. | | Acad | LEC 3.0 3.0 3.0 | S |
| COM222 | 1999 Fall | Argumentation | | Discussion and practice of the use of evidence, applied reasoning, recognition of fallacies, selection of arguments, and methods of analyzing issues | Prerequisites: A grade of C or better in ENG101 or ENG107 or equivalent. | Course Attribute(s): General Education Designation: Literacy and Critical Inquiry - [L] | Acad | LEC 3.0 3.0 3.0 | S |
| COM225 | 2005 Summer I | Public Speaking | | Designed to enhance the student's ability to present public speeches confidently and competently. Also designed to improve information literacy and critical thinking skills | Prerequisites: A grade of C or better in ENG101 or ENG107 or equivalent. | Course Attribute(s): General Education Designation: Literacy and Critical Inquiry - [L] | Acad | LEC 3.0 3.0 3.0 | S |
| COM230 | 2014 Summer | Small Group Communication | | Principles and processes of small groups and development of skills for participation and leadership in small group settings. Practice in problem solving, decision making, and information sharing. | Prerequisites: None. | General Education Designation: Social and Behavioral Sciences - [SB] Arizona Shared Unique Number SUN#: COM2271 | Acad | LEC 3.0 3.0 3.0 | S |
| COM241 | 2010 Fall | Oral Interpretation of Literature | THP241 | The study, analysis, and preparation for performance of prose, poetry, and dramatic literature. Preparation of material for public audiences. | Prerequisites: A grade of C or better in ENG101 or ENG107. | Course Attribute(s): General Education Designation: Humanities, Arts and Design - [HU] General Education Designation: Literacy and Critical Inquiry - [L] | Acad | LEC 3.0 3.0 3.0 | S |
| COM250 | 2010 Spring | Introduction to Organizational Communication | | Introduction to the study of communication in organizations including identification of variables, roles and patterns influencing communication in organizations | Prerequisites: None. | Course Attribute(s): General Education Designation: Social and Behavioral Sciences - [SB] | Acad | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| COM251 | 1995 Fall | Interviewing | | Principles and techniques of interviewing, including practice through real and simulated interviews in informational, persuasive, and employee-related situations | Prerequisites: None. | | Acad | LEC 3.0 3.0 3.0 | S |
| COM259 | 2019 Fall | Communication in Business and Professions | | Interpersonal, organizational, intercultural, group, and public communication in business and professional organizations. Emphasis on oral communication and the effective use of technology and new media. | Prerequisites: A grade of C or better in ENG101, or ENG107, or equivalent. | | | LEC 3.0 3.0 3.0 | S |
| COM263 | 2018 Fall | Elements of Intercultural Communication | | Diverse cultural contexts are explored through basic concepts, principles, and theories of intercultural communication. Discovering effective interaction and appropriate communication in a global community is emphasized. | Prerequisites: None. | Course Attribute(s): General Education Designation: Cultural Diversity - [C] General Education Designation: Global Awareness - [G] General Education Designation: Social and Behavioral Sciences - [SB] | Acad | LEC 3.0 3.0 3.0 | S |
| COM270 | 2018 Summer | Health Communication | | Theory and practice of interpersonal, intercultural, public, and team communication skills in a healthcare setting. | Prerequisites: None. | | Acad | LEC 3.0 3.0 3.0 | S |
| COM271 | 1995 Fall | Voice and Diction | THP271 | Exercises and techniques to free the voice and improve projection, resonance, and articulation. Covers international phonetic alphabet and standard stage speech | Prerequisites: None. | | Acad | LEC 3.0 3.0 3.0 | S |
| COM275 | 1995 Fall | Nonverbal Communication | | Effects of space, time, body movements, environment, objects, and voice quality on human communication and interaction | Prerequisites: None. | | Acad | LEC 3.0 3.0 3.0 | S |
| COM277 | 2023 Fall | Group Facilitation Theory and Practice | | Theory and practice of group facilitation skills. Emphasis on leading organizational groups in problem solving and decision-making. | Prerequisites: Associates degree or equivalent or 3 to 5 years work experience or permission of Instructor. | | Acad | LEC 2.0 2.0 2.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| COM281 | 2018 Fall | Communication Activities | | Designed to provide students with competence and confidence in a variety of speech situations beyond the classroom setting. May include presentations at speech competitions or at community organizations. | Prerequisites: None. | COM281 may be repeated for a total of six (6) credit hours. | Acad | L+L 1.0 3.0 3.0 | T |
| COM281AA | 2018 Fall | Communication Activities | | Designed to provide students with competence and confidence in a variety of speech situations beyond the classroom setting. May include presentations at speech competitions or at community organizations. | Prerequisites: None. | COM281AA may be repeated for a total of six (6) credit hours. | Acad | L+L 2.0 4.0 4.0 | T |
| COM281AB | 2018 Fall | Communication Activities | | Designed to provide students with competence and confidence in a variety of speech situations beyond the classroom setting. May include presentations at speech competitions or at community organizations. | Prerequisites: None. | COM281AB may be repeated for a total of six (6) credit hours. | Acad | L+L 3.0 5.0 5.0 | T |
| COM282AA | 2013 Fall | Service-Learning Experience in Communication | | Unpaid Service-Learning (SL) experience, completed with approved community partner. | Prerequisites: Permission of Instructor. | COM282AA may be repeated for a total of six (6) credit hours. Standard grading available according to procedures outlined in catalog. | Acad | LAB 1.0 1.0 0.0 | L |
| COM282AB | 2013 Fall | Service-Learning Experience in Communication | | Unpaid Service-Learning (SL) experience, completed with approved community partner. | Prerequisites: Permission of Instructor. | COM282AB may be repeated for a total of six (6) credit hours. Standard grading available according to procedures outlined in catalog. | Acad | LAB 2.0 2.0 0.0 | L |
| COM282AC | 2013 Fall | Service-Learning Experience in Communication | | Unpaid Service-Learning (SL) experience, completed with approved community partner. | Prerequisites: Permission of Instructor. | COM282AC may be repeated for a total of six (6) credit hours. Standard grading available according to procedures outlined in catalog. | Acad | LAB 3.0 3.0 0.0 | L |
| COM296WA | 2023 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to | | | LAB 1.0 5.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor. | | | | |
| COM296WB | 2023 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor. | | Acad | LAB 2.0 10.0 0.0 | Z |
| COM296WC | 2023 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest | | Acad | LAB 3.0 15.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | or with permission of the Instructor. | | | | |
| COM296WD | 2023 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor. | | Acad | LAB 4.0 20.0 0.0 | Z |
| COM298AA | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | Prerequisites: Permission of Program Director or Instructor. | | Acad | LAB 1.0 1.0 0.0 | Z |
| COM298AB | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. | Prerequisites: Permission of Program Director or Instructor. | | Acad | LAB 2.0 2.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | | | | | |
| COM298AC | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | Prerequisites: Permission of Program Director or Instructor. | | Acad | LAB 3.0 3.0 0.0 | Z |
| CON100 | 2020 Summer | Introduction to Construction | | Introduces students to all aspects of the construction industry such as how projects are delivered, reviewing the procurement process and how they are estimated, scheduled, and contracted. Introduces students to the individual roles that constructors fill in the delivery of a construction project. | Prerequisites: None. | | Occ | LEC 2.0 2.0 2.0 | S |
| CON101 | 2018 Fall | Construction and Culture | | The cultural context of construction, emphasizing the evolution and expansion of constructed environments as expressions of ethical and historical value systems. | Prerequisites: None. | Course Attribute(s): General Education Designation: Historical Awareness - [H] General Education Designation: Humanities, Arts and Design - [HU] | Occ | LEC 3.0 3.0 3.0 | S |
| CON103 | 2020 Summer | Foundation of Construction Safety | | Occupational Safety and Health Act (OSHA). Common causes for accidents and fatalities in construction. Abatement techniques for construction-specific hazards. Use of personal protection | Prerequisites: None. | | Occ | L+L 1.0 1.0 1.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | and lifesaving equipment. Specific types of health hazards related to the construction industry. Proper methods for handling hazardous materials. | | | | | |
| CON104 | 2020 Summer | Hand and Power Tools, Equipment, and Workspace | | Overview of the selection, use, maintenance and safety procedures for common hand tools, power tools and equipment used in the construction industry. Overview of the maintenance of workspace according to professional standards. | Prerequisites: None. | | Occ | L+L 1.5 1.5 1.5 | T |
| CON105 | 2022 Fall | Construction Calculations | | Introduction to basic calculation skills in the construction environment including the four primary operations. United States standard and metric units of measure, geometric figures, and area and volume calculations for two and three-dimensional objects. | Prerequisites: None. | | Occ | L+L 1.5 1.5 1.5 | T |
| CON106 | 2018 Fall | Foundations of Concrete | | Examines the effects of concrete-making materials (aggregates, cements, admixtures, etc.) on the properties of fresh and hardened concrete. Concrete mixture proportioning is discussed along with the calculations and statistical analysis of strength testing. | Prerequisites: None. | | Occ | LEC 4.0 2.0 2.0 LAB 0.0 4.0 4.0 | T |
| CON107 | 2020 Summer | Construction Drawings Introduction | | Provides students with the information and skills needed to read and understand construction drawings. | Prerequisites: None. | | Occ | L+L 1.0 1.0 1.0 | T |
| CON110 | 2021 Fall | Carpentry: Floor Systems | | Emphasis on the layout and construction procedures for floor systems, including: interpretation of construction drawings and specifications; selection of appropriate types of floor system components; | Prerequisites: None. | | Occ | L+L 3.5 4.0 4.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | and application of floor system materials. Includes estimation of the amount of materials needed for a floor assembly and some common alternative floor systems. | | | | | |
| CON111 | 2020 Summer | Carpentry: Wall Systems | | Examines the layout and construction procedures for wall systems, including: interpretation of construction drawings and specifications; selection of appropriate types of wall system components; and application of wall system materials. Emphasis of the estimation of the amount of materials needed for a wall assembly and some common alternative wall systems. | Prerequisites: None. | | Occ | L+L 3.5 4.0 4.0 | T |
| CON112 | 2021 Fall | Carpentry Ceiling Joist and Roof Framing | | Covers the layout and construction procedures for roof systems, including interpretation of construction drawings and specifications. Provides an overview of ceiling and roof construction methods, the different types of roofs used in residential construction, materials, estimation of materials, and the use of trusses in basic roof framing. | Prerequisites: None. | | Occ | L+L 4.0 5.0 5.0 | T |
| CON117 | 2019 Spring | Interpersonal Skills, Issues and Resolutions in Construction | | Information about communication and human relations skills, the expectations of today's diverse workforce, and relationships with stakeholders. Leadership style, interview techniques, and professional development plans. Management skills in problem solving and negotiating. | Prerequisites: None. | | Occ | LEC 2.0 2.0 2.0 | S |
| CON124 | 2020 Summer | Plumbing: Pipes and Fittings | | Introduces the various types of plumbing materials, pipe | Prerequisites: None. | | Occ | L+L 3.5 4.0 4.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | schedules and material properties, and applications of piping. Trainees will learn how to determine the appropriate types of fittings, valves, hangers, and supports needed for piping jobs. Trainees will learn to properly measure, cut, prep, and join piping. | | | | | |
| CON125 | 2020 Summer | Plumbing: Fixtures | | Introduces commonly used fixtures in plumbing systems. Select and operate each type of fixture for a variety of installations. Provides an overview of plumbing system installation, maintenance and water heating systems. | Prerequisites: None. | | Occ | L+L 2.0 3.0 3.0 | T |
| CON126 | 2020 Summer | Plumbing: Drain, Waste, and Vent | | Examine the drainage, waste movement and ventilation for construction application. Provides instruction in locating, installing, connecting, and testing a complete drain, waste, and vent (DWV) system. | Prerequisites: None. | | Occ | L+L 3.5 4.0 4.0 | T |
| CON127 | 2020 Summer | Plumbing: Water Distribution Systems | | Discuss the processes through which potable water is distributed. Examine the identification of the components and functions of a water distribution system and explains the relationships among the components. Includes installation and testing of water distribution systems. | Prerequisites: None. | | Occ | L+L 2.0 3.0 3.0 | T |
| CON130 | 2018 Fall | Computer Aided Design and Drafting | | Fundamental drafting and documentation topics and techniques related to construction, using both board and computer as tools. Concentration on various methods of two-dimensional and three-dimensional drawing, sketching, scaling, | Prerequisites: None. | | Occ | L+L 3.0 6.0 6.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | and dimensioning with computer and board. | | | | | |
| CON131 | 2020 Summer | Electrical Systems | HVA131 | Electricity related to residential and light commercial applications, to include common electrical components, AC and DC circuits, and electrical safety. Provides an introduction to reading, interpreting, and creating wiring diagrams and the application of electrical power. Operation and use of specific meters, tools, and an introduction to National Electrical Code (NEC). | Prerequisites: None. | | Occ | L+L 3.5 4.0 4.0 | T |
| CON132 | 2020 Summer | Distribution Panels, Wiring, and Circuit Protection in Electrical Systems | | Discuss construction drawings and code related to conductors and cables (types, ratings), residential and commercial applications, wire sizes, utilities, meters, disconnects, breakers, grounding and bonding, rough-in wiring and circuit safety protection. | Prerequisites: None. | | Occ | L+L 3.5 4.0 4.0 | T |
| CON133 | 2020 Summer | Conduit, Raceways, and Termination in Electrical Systems | | Termination and implementation of electricity in a facility. Considers topics related to box capacities, raceways, conduit sizes, termination practices, wire trays, and finish wiring. | Prerequisites: None. | | Occ | L+L 4.0 5.0 5.0 | T |
| CON138 | 2019 Spring | Introduction to Project Management and Resource Control | IND138 | Technical and management skills such as preconstruction planning, cost and risk control and policy development. Criteria for project layout purchasing, subcontractor management, project layout. Preparation process for project start up, close out and alternate project delivery methods. Major factors which affect production control and | Prerequisites: None. | | Occ | LEC 1.0 1.0 1.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | production control standards. Project manager's role. | | | | | |
| CON181 | 2018 Fall | Cost Estimating | | Determining quantities of material, equipment, and labor for a construction project. Includes procedures used to apply unit costs to these items in a minimum of time. Occupational Safety and Health Administration Safety Standards and their impact on construction cost. | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| CON213 | 2020 Summer | Carpentry: Steel Framing | | The layout and construction procedures for steel framing, including: interpretation of construction drawings and specifications; selection of appropriate types of steel framing components; and application of materials. Includes estimation of the amount of materials needed for a steel assembly. | Prerequisites: None. | | Occ | L+L 1.0 2.0 2.0 | T |
| CON214 | 2020 Summer | Carpentry: Roof Systems and Building Envelopes | | Safety, codes, and construction procedures for roof systems and building envelopes, including interpretation of construction drawings and specifications. Students construct conventional roof structures and ceilings, and install exterior finish materials. | Prerequisites: None. | | Occ | L+L 3.0 4.0 4.0 | T |
| CON215 | 2020 Summer | Carpentry: Interior Finishes | | The layout and construction procedures for interior finishes such as: drywall, trim, doors, cabinetry and stairs, including interpretation of construction drawings and specifications. Provides an overview of construction methods, the different types of materials, and estimation of materials. | Prerequisites: None. | | Occ | L+L 4.0 5.0 5.0 | T |
| CON216 | 2020 Summer | Carpentry: Concrete Forms | | Safety, codes, and construction procedures for layout and construction of | Prerequisites: None. | | Occ | L+L 3.0 4.0 4.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | concrete footers and post-tensioned slabs, wall forms, and columns. Includes interpretation of construction drawings and estimation of materials. | | | | | |
| CON220 | 2022 Spring | Statics Application for Construction | | Emphasis on response of bodies to the action of forces. Elementary analytical and practical approach to the principles and physical concepts of statics. Focus on mastery of basic principles of trigonometry, application of vectors and forces, and moments, with analysis of basic structures and structural components, and statics application to construction. | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| CON221 | 2022 Fall | Applied Statics | | Emphasis on response of bodies to the action of forces. Elementary analytical and practical approach to the principles and physical concepts of statics, focuses on mastery of basic principles of trigonometry, application of vectors and forces, and moments, with analysis of basic structures and structural components, trusses, shear and moment diagrams, centroids, and moments of inertia. | Prerequisites: A grade of C or better in MAT15+, (MAT182 OR MAT187) and PHY111. | | Occ | LEC 3.0 3.0 3.0 | S |
| CON223 | 2018 Fall | Strength of Materials | | Strength and application of materials of construction, including mechanics of beams, shafts, and bolted and welded connections under various loading conditions. Construction behavior of various materials externally and internally. | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| CON224 | 2020 Summer | Plumbing: Pipe Systems and Controls | | Examines applied calculations to determine size, types and service of pipe systems. | Prerequisites: None. | | Occ | L+L 3.0 4.0 4.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Discusses the application of drawings, codes, and specifications for assembly and installation of gas, air, and water systems. | | | | | |
| CON225 | 2020 Summer | Plumbing: Water Disposal Systems | | Examines water disposal and drainage systems, to include the types, components, functions, codes, safety, design, installation and repair. | Prerequisites: None. | | Occ | L+L 4.0 5.0 5.0 | T |
| CON226 | 2020 Summer | Plumbing: Fixtures and Appliances | | Examines the safety, codes, installation, maintenance, and repair of appliances, fixtures, and gas piping. | Prerequisites: None. | | Occ | L+L 3.0 4.0 4.0 | T |
| CON227 | 2020 Summer | Plumbing: Water Resource Solutions | | Introduces water supply disinfection, filtration systems, and sustainable water practices. | Prerequisites: None. | | Occ | L+L 2.0 2.0 2.0 | T |
| CON234 | 2020 Summer | Electric Power Distribution | | Theory and applications of distribution of power from utilities to residential and commercial sites, including transformers and commercial electrical distribution equipment and services. Includes safety, codes, and interpretation of construction drawings and specifications. | Prerequisites: None. | | Occ | L+L 3.0 4.0 4.0 | T |
| CON235 | 2020 Summer | Motors: Theory and Application | | Describes motor and motor controls in electricity. Explains how to select and install relays and troubleshoot control circuits. Distinctions between AC and DC motors, motor speed control, and design and operation characteristics, connections and terminal markings. | Prerequisites: None. | | Occ | L+L 4.0 5.0 5.0 | T |
| CON236 | 2020 Summer | Industrial Wiring Applications | | A broad variety of electrical wiring applications, including healthcare facility, heating, ventilation and air conditioning (HVAC), standby, emergency, and fire alarm systems. | Prerequisites: None. | | Occ | L+L 3.0 3.0 3.0 | T |
| CON241 | 2018 Fall | Surveying I | | Fundamental surveying principles including theory and | Prerequisites: None. | | Occ | LEC 3.0 2.0 2.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | field work using the level and transit, horizontal measurement by tape or stadia, benchmark and profile leveling traverse surveys and computations, establishment of line and grade. Designed to develop semi-professional personnel working for private or government engineering agencies. | | | | LAB 0.0 3.0 3.0 | |
| CON243 | 2018 Fall | Heavy Construction Equipment, Methods, and Materials | | Fundamentals of machine selection and production estimating, using computer-generated data to develop programs that speed the decision process or allow easy analysis of multiple options used in the heavy construction industry. Applications of engineering principles in analyzing economical approaches for heavy construction. Covers fleet operation, methods, maintenance, and programs for construction of dams, tunnels, roads, and excavations of buildings. | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| CON244 | 2018 Fall | Working Drawing Analysis: Blueprint Reading | | Detailed analysis and interpretation of construction drawings (blueprint reading); interpretation of symbols, annotations, conventions, terms of trade; and understanding of drawing, dimensioning, plan organization, and specifications. | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| CON251 | 2018 Fall | Microcomputers for Constructors | | Effective application of computers in support of construction management, administration, and technical aspects of the construction industry. Uses of the computer as a problem-solving tool, | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | including multimedia software, information management, and spreadsheet applications in construction. | | | | | |
| CON252 | 2018 Fall | Building Construction Methods, Materials, and Equipment | | Comprehensive study of construction methods, materials, codes, and equipment used in building construction. | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| CON262 | 2018 Fall | Introduction International Residential Code (IRC) | | Covers International Residential Code for various trades, including building, mechanical, plumbing and electric, for one and two family residential construction. Preparation for voluntary certification (IRC building inspection). | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| CON263 | 2018 Fall | Building Codes | | Designed specifically to acquaint students with safety principles of building construction under the Uniform Building Code, including structural requirements for wood, masonry and concrete, fire resistance of building construction, fire resistant materials, and ratings and occupancy requirements. | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| CON271 | 2018 Fall | Construction Safety | | Overview of safety methods and procedures for accident prevention and equipment used by construction workers to maximize field safety during various phases of a construction project, including requirements and regulations for construction safety set by Occupational Safety and Health Administration (OSHA) standards along with biological aspects of construction safety. | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| CON273 | 2018 Fall | Electrical Construction Fundamentals | | General knowledge of electrical work related to | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | construction management, administration, and technical aspects of the construction industry. Covers circuits and machinery, power transmission, and electrical distribution with emphasis on secondary distribution systems as well as measurement and instrumentation, Ohm's Law, low voltage, high voltage, temporary power, generators, service, systems, circuits, motors, transformers, electrical installations, codes, cogeneration, energy conservation, estimating, safety and related blueprint readings. | | | | | |
| CON290AA | 2019 Spring | Construction Internship | CNS290AA | Construction internship office/field experience with private/public agencies or citizen volunteer groups. Eighty (80) hours of designated work experience. | Prerequisites: Permission of Department or Division. | CON/CNS290AA may be repeated for a total of three (3) credits. Standard grading available according to procedures outlined in college catalog. | Occ | LAB 1.0 6.0 0.0 | C |
| CON290AB | 2019 Spring | Construction Internship | CNS290AB | Construction internship office/field experience with private/public agencies or citizen volunteer groups. One hundred and sixty (160) hours of designated work experience. | Prerequisites: Permission of Department or Division. | Standard grading available according to procedures outlined in college catalog. | Occ | LAB 2.0 12.0 0.0 | C |
| CON290AC | 2019 Spring | Construction Internship | CNS290AC | Construction internship office/field experience with private/public agencies or citizen volunteer groups. Two hundred and forty (240) hours of designated work. | Prerequisites: Permission of Department or Division. | Standard grading available according to procedures outlined in college catalog. | Occ | LAB 3.0 18.0 0.0 | C |
| CON298AA | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and | Prerequisites: Permission of Program Director or Instructor. | | Occ | LAB 1.0 1.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | | | | | |
| CON298AB | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | Prerequisites: Permission of Program Director or Instructor. | | Occ | LAB 2.0 2.0 0.0 | Z |
| CON298AC | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | Prerequisites: Permission of Program Director or Instructor. | | Occ | LAB 3.0 3.0 0.0 | Z |
| COS104 | 2020 Fall 1 | Hair Essentials I | | Introduction to the basic theory and procedures in cosmetology hair essentials. | Prerequisites: Program Admission. | | CLK | 200 | |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| COS106 | 2020 Fall 1 | Hair Essentials II | | Hair-shaping techniques and chemical application procedures in cosmetology hair essentials. | Prerequisites: COS104 or Program Manager's permission. | | CLK | 200 | |
| COS114 | 2021 Fall 1 | Student Salon 1 | | Continuation of cosmetology theory and practical concepts at an intermediate level. Theory will be focusing on professional development, salon ecology, anatomy and hair decisions. Practical skills will be demonstrated daily on clients and manikins. Rubrics on procedures are done monthly. One day a month on Arizona state board licensure focus. | Prerequisites: A grade of C or better in COS112, or COS106, or permission of Program Manager. | | CLK | 200 | |
| COS116 | 2020 Fall 1 | Student Salon 2 | | Apply concepts learned in the classroom and the student salon to develop real life scenarios while servicing a client and/or becoming a future business owner in the beauty industry. | Prerequisites: COS114 or Program Manager's permission. | | CLK | 200 | |
| COS118 | 2020 Fall 1 | Hair Stylist State Licensure Focus | | This course is designed to prepare students for the written and practical examinations for the Arizona State Board of Cosmetology HAIRSTYLIST licensure only. | Prerequisites: COS116 or Program Manager's permission. | | CLK | 200 | |
| COS119 | 2020 Fall 1 | Nail Essentials | | Introduction to nail services in the beauty industry. | Prerequisites: COS116 or Program Manager's permission. | | CLK | 200 | |
| COS212 | 2020 Fall 1 | Skin Essentials | | Introduction to skin services in the beauty industry. | Prerequisites: COS119 or Program Manager's permission. | | CLK | 200 | |
| COS214 | 2020 Fall 1 | Student Salon 3 | | Prepares cosmetology students to be industry ready and prepared to perform services in their chosen field of expertise after licensure with the Arizona State Board of Cosmetology. | Prerequisites: COS212 or Program Manager's permission. | | CLK | 200 | |
| COS218 | 2022 Spring | Cosmetology State Licensure Focus | | This course is designed to prepare cosmetology students for the written and practical | Prerequisites: COS214 or Program Manager's permission. | | CLK | 100 | |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | examinations for Arizona State Board of Cosmetology licensure. | | | | | |
| COS250 | 2021 Fall 1 | Instructor in Training Orientation | | Students will be introduced to the Arizona State Board of Cosmetology instructor safety and sanitation, rules and regulations. This class is to prepare a student to become an instructor in their licensed field. | Prerequisites: 1. Must hold current Arizona State Board of Cosmetology License in good standing, in the appropriate field. 2. Must have one year of industry work experience. | | | 80 | |
| COS251 | 2019 Fall 1 | Instructor in Training I | | Students will train to become an instructor in their certified field of cosmetology or aesthetics. Students will learn the fundamentals of becoming an instructor by completing assigned work, shadowing instructors, creating lesson plans, coaching students and working hands-on with students and clients. | Prerequisites: COS250. | CLK | CLK | 135 | |
| COS252 | 2019 Fall 1 | Instructor in Training II | | Students will continue to train to become an instructor in their certified field of cosmetology or aesthetics. Student will learn the fundamentals of becoming an instructor by completing assigned work, shadowing instructors, creating lesson plans, coaching students and working hands-on with students and clients. State board preparation for licensing. | Prerequisites: COS251. | | CLK | 135 | |
| COV110 | 1997 Summer I | The Seven Habits of Highly Effective People | | Development of interpersonal habits that are used by successful people in their personal and professional lives. Seven Habits of Highly Effective People. Video-based lecture course. | Prerequisites: None. | Under the terms and conditions specified in the licensing agreement with the Franklin Covey Company and the the Maricopa Community College District, only those persons licensed are qualified to teach Covey prefix courses. These facilitators must be identified | Occ | LEC 2.0 2.0 2.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | within the terms of the licensing agreement. | | | |
| COV112 | 2016 Fall | Great Leaders, Great Teams, Great Results | | Overview of foundational characteristics of great teams and organizations. Process oriented approach to creating strategies for inspiring trust and building credibility, defining a purpose, aligning systems of success, and unleashing talents of teams. | Prerequisites: None. | | Occ | LEC 2.0 2.0 2.0 | S |
| CPD101 | 1994 Fall | Personal Development | | Designed to assist students in developing confidence in making personal, social, and educational decisions. Examination and assessment of individual needs, interests, abilities and values to develop and strengthen interpersonal communication, enhance transitional skills and identify realistic life planning goals | Prerequisites: None. | | Acad | LEC 2.0 2.0 2.0 | S |
| CPD102AA | 2002 Summer I | Assertiveness Training | | Designed to help students, differentiate assertive, non-assertive and aggressive behavior, overcome blocks to acting assertively, establish boundaries, and develop effective verbal and nonverbal assertive behavior. Group discussion, role playing, and videotape feedback are used to enable students to express feelings, beliefs, and opinions in a direct appropriate manner | Prerequisites: None. | | Acad | LEC 2.0 2.0 2.0 | S |
| CPD102AB | 2019 Fall | Career Exploration | | Designed to assist students make informed career decisions. Focuses on current occupational trends and outlook. Explores career-related interests, values, needs, preferences, skills, and strengths with the use of various assessments. Aids in the development of individualized | Prerequisites: None. | CPD102AB may be repeated for a total of six (6) credit hours. | Acad | LEC 2.0 2.0 2.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | educational/career goals and action plan. | | | | | |
| CPD102AC | 2017 Fall | Creative Job Hunting | | Assists students in gaining skills and confidence necessary to compete in the job market. Emphasis on job search techniques and strategies, resume and cover letter writing, interviewing skills and professional etiquette. | Prerequisites: None. | CPD102AC may be repeated for credit. | Acad | LEC 2.0 2.0 2.0 | S |
| CPD102AD | 2018 Fall | Growth and Transformation Strategies | | Designed to help students adopt a growth mindset within a holistic framework in order to transform patterns that prevent them from achieving their goals. | Prerequisites: None. | | Acad | LEC 2.0 2.0 2.0 | S |
| CPD102AF | 2019 Fall | Human Sexuality | | Enables students to view gender and sexuality as dimensions of personal identity, and explores intersectionality between multiple identities. Examination of differences between identify expression, behavior, and biological influences, tracing social evolution from masculine-feminine dichotomy to non-binary perspectives. | Prerequisites: None. | | Acad | LEC 2.0 2.0 2.0 | S |
| CPD102AH | 2020 Fall | Stress Management | | Reviews the sources of stress, the physiological effects and the psychological impact of stress on the individual. Provides strategies to manage and reduce stress. Helps students develop and understand behaviors to create a healthy balance in their lives by studying the biological, psychological, physiological, and social aspects of stress and wellness. | Prerequisites: None. | | Acad | LEC 3.0 3.0 3.0 | S |
| CPD102AJ | 2000 Spring | Personal Spiritual Development | | Designed to encourage exploration of human | Prerequisites: None. | | Acad | LEC 2.0 2.0 2.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | spirituality. Focus on personal values and individual belief systems. Emphasis on developing an integrated concept of spirituality and applying it to one's own life | | | | | |
| CPD102AN | 2002 Fall | Anger Management | | Provides an understanding of the emotion of anger, explores the types, origins and typical reactions to anger. Covers stress and the need for stress management in relation to anger. Examines personal anger patterns and feelings, and the use of effective interpersonal communications in effective anger management | Prerequisites: None. | | Acad | LEC 2.0 2.0 2.0 | S |
| CPD102AR | 1995 Summer I | Relaxation Training | | Emphasis on specific relaxation techniques to alleviate dysfunctional tension. Use of progressive relaxation methods to reduce stress. Discussion of other modalities of relaxation | Prerequisites: Permission of Instructor. | | Acad | LEC 1.0 1.0 1.0 | S |
| CPD102AS | 1998 Spring | Conflict Resolution | | Developing new skills for dealing effectively with everyday conflict and improving quality of one's own life. Opportunity to discuss issues and seek cooperative resolutions | Prerequisites: None. | | Acad | LEC 2.0 2.0 2.0 | S |
| CPD102AT | 1998 Spring | Building Self-Esteem | | Practice in specific methods for building and keeping self-esteem. Personal assessment of attitudes, values, support systems, and goals | Prerequisites: None. | | Acad | LEC 2.0 2.0 2.0 | S |
| CPD102AU | 2007 Fall | Introduction to Meditation: Vipassana Practice | | Introduction to the practice of Vipassana (Insight) Meditation. Focus on the history, benefits and methodology of Vipassana meditation. Special emphasis on establishing a formal and informal meditation practice | Prerequisites: None. | | Acad | LEC 1.0 1.0 1.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| CPD103BA | 2023 Fall | Women In Transition | | Designed to assist and support women who are experiencing life transitions. Emphasis on assessing self-potential, increasing self-confidence, managing life change, and exploring education/career/life options in terms of the realities of roles for women today. | Prerequisites: None. | | Acad | LEC 2.0 2.0 2.0 | S |
| CPD103BB | 1995 Spring | Men in Transition | | Designed to assist men who are experiencing life transitions. Emphasis on assessing potential, increasing self-confidence, managing change, exploring educational/career options, and exploring mens' roles in a changing society | Prerequisites: None. | | Acad | LEC 2.0 2.0 2.0 | S |
| CPD103BC | 2003 Fall | African American Cultural Pride and Awareness | | Develop an awareness of cultural roots, history, and traditions with emphasis on the shaping of personal identity, social, career, and educational decisions | Prerequisites: None. | | Acad | LEC 2.0 2.0 2.0 | S |
| CPD103BD | 2003 Fall | Latino/Hispanic American Pride and Awareness | | Develop an awareness of cultural roots, history, and traditions with emphasis on the shaping of personal identity, social, career, and educational decisions | Prerequisites: None. | | Acad | LEC 2.0 2.0 2.0 | S |
| CPD103BE | 2003 Fall | Native American Cultural Pride and Awareness | | Develop an awareness of cultural roots, history, and traditions with emphasis on the shaping of personal identity, social, career, and educational decisions | Prerequisites: None. | | Acad | LEC 2.0 2.0 2.0 | S |
| CPD103BG | 2003 Fall | Asian American Cultural Pride and Awareness | | Develop an awareness of cultural roots, history, and traditions with emphasis on the shaping of personal identity, social, career, and educational decisions | Prerequisites: None. | | Acad | LEC 2.0 2.0 2.0 | S |
| CPD103BH | 1994 Fall | Male-Female Communication | | Designed to provide students with a better understanding of male-female characteristics | Prerequisites: None. | | Acad | LEC 2.0 2.0 2.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | and how that along with a renewed emphasis on basic communication skills will improve communication between the sexes | | | | | |
| CPD103BJ | 1996 Spring | Dynamic Parenting | | Designed to provide students with an understanding of parenting dynamics and effective communication between parents and children. Emphasis on building self-esteem, developing coping skills, behavior modification, and other techniques for improving parenting and communication in a variety of circumstances | Prerequisites: None. | | Acad | LEC 2.0 2.0 2.0 | S |
| CPD103BL | 2012 Summer I | Dynamics of Leadership | | Designed to provide strategies that may be used when assuming leadership roles. Focus on improving self-confidence through the development of appropriate behaviors, problem-solving skills, and techniques of leadership. | Prerequisites: None. | | Acad | LEC 2.0 2.0 2.0 | S |
| CPD103BV | 2007 Summer I | Personal Development for Military Veterans | | Assist military veterans in examining role changes, values, strengths, resources, career, readjustment and lifestyle choices. Strategies for coping with life changes, stress, and other personal development needs in transitioning into civilian life | Prerequisites: None. | | Acad | LEC 2.0 2.0 2.0 | S |
| CPD104 | 2019 Fall | Career and Personal Development | | An overview of the holistic process of career/life planning through self-awareness and understanding of the world of work. Exploration and application of behavioral, social, and cultural factors leading to college, career, and personal success with emphasis on assessment, applied behavior | Prerequisites: None. | | Acad | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | management, motivation, self-care, and career development. | | | | | |
| CPD108 | 2006 Spring | Personal Money Management for College Students | | Designed to assist students in examining values related to spending, borrowing and saving money. Identify financial priorities and responsibilities associated with debt. Develop and follow a personal budget plan and learn strategies for maintaining a financially balanced personal life | Prerequisites: None. | | Acad | LEC 1.0 1.0 1.0 | S |
| CPD115 | 2007 Fall | Creating College Success | AAA115 | Strategies to create success in college. Methods for selecting and developing effective academic strategies, increasing self-awareness and developing self-management strategies. Elements of college resources and relationships with others explored in support of students' educational experience | Prerequisites: None. | | Acad | LEC 1.0 1.0 1.0 | S |
| CPD125 | 2023 Fall | Employee Development: Problem Solving/Decision Making | | Development of decision-making skills as well as techniques for problem solving. Focus on values and value conflicts as related to decision-making. Also includes establishing short and long-term goals for personal and career development. | Prerequisites: None. | | Acad | LEC 1.0 1.0 1.0 | S |
| CPD150 | 2017 Spring | Strategies for College Success | AAA150 | Focus on increasing student success through college orientation and personal growth, study skills development, and educational and career planning. | Prerequisites: None. | | Acad | LEC 3.0 3.0 3.0 | S |
| CPD150AA | 2021 Fall | College Orientation and Personal Growth | | Emphasis on increasing student success through college orientation, identification of learning style and the use of time | Prerequisites: None. | | Acad | LEC 1.0 1.0 1.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | management, goal-setting, and interpersonal communication strategies | | | | | |
| CPD150AB | 2021 Fall | Study Skills Development | | Emphasis on increasing student success through the use of study strategies including materials organization, note-taking, reading, test-taking, memory, and critical and creative thinking | Prerequisites: None. | | Acad | LEC 1.0 1.0 1.0 | S |
| CPD150AC | 2019 Fall | Educational and Career Planning | AAA150AC | Emphasis on increasing student success through educational and career planning. | Prerequisites: None. | | Acad | LEC 1.0 1.0 1.0 | S |
| CPD160 | 2013 Fall | Introduction to Multiculturalism | | Examination of the multiple cultures and subcultures within the contemporary United States. Personal exploration of awareness and appreciation of multiculturalism. Activities for experiencing diverse cultural perspectives. Critical thinking skills for recognizing, analyzing, and mediating cultural and psychological factors impacting conflict and accord between diverse cultures through written and oral discourse. | Prerequisites: A grade of C or better in ENG101, or ENG107, or permission of Instructor. | Course Attribute(s): General Education Designation: Cultural Diversity - [C] General Education Designation: Literacy and Critical Inquiry - [L] | Acad | LEC 3.0 3.0 3.0 | S |
| CPD180 | 2021 Fall | Human Resilience: Cognitive, Emotional, and Behavioral Applications | | Exploration of human resilience and well-being within the context of personal, academic, and career life. Focus on enhancing quality of life, and improving academic performance and career success through awareness of behavior, cognition, and emotion as well as the practice of self-regulation. Topics include mindfulness, positive psychology, motivation, effective thinking, applied neuroscience, mental | Prerequisites: None. | Course Attribute(s): General Education Designation: Social-Behavioral Sciences - [SB] | Acad | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | and emotional health and self-care. | | | | | |
| CPD195AA | 2001 Spring | Special Topics: Counseling and Personal Development | | Introduction to current topics and contemporary issues related to promoting and enhancing personal development | Prerequisites: None. | | Acad | LEC 0.5 0.5 0.5 | S |
| CPD195AB | 2001 Spring | Special Topics: Counseling and Personal Development | | Introduction to current topics and contemporary issues related to promoting personal development. Focuses on a variety of techniques and strategies to improve personal and interpersonal effectiveness | Prerequisites: None. | | Acad | LEC 1.0 1.0 1.0 | S |
| CPD250 | 2018 Fall | Peer Mentor Training | | Development and application of beginning skills and knowledge required to establish and maintain effective peer helping relationships in a college setting. Focus on the role, function, and responsibilities of the peer mentor; verbal and nonverbal communication skills; problem solving; and strategies and resources for first-year student success. Includes on-campus service-learning component. | Prerequisites: Completion of 24 credit hours (100-level or above) with a B grade point average or better and permission of Instructor. | | Acad | L+L 3.0 4.0 4.0 | T |
| CPD282AA | 1993 Fall | Volunteerism for Counseling and PersonalDevelopment: A Service Learning Experience | | Service-learning field experience within private/public agencies, and citizen volunteer groups. | Prerequisites: Permission of Instructor. | CPD282AA may be repeated for a total of six (6) credit hours. Standard grading available according to procedures outlined in catalog. | Acad | LAB 1.0 1.0 0.0 | L |
| CPD282AB | 1993 Fall | Volunteerism for Counseling and PersonalDevelopment: A Service Learning Experience | | Service-learning field experience within private/public agencies, and citizen volunteer groups. | Prerequisites: Permission of Instructor. | CPD282AB may be repeated for a total of six (6) credit hours. Standard grading available according to procedures outlined in catalog. | Acad | LAB 2.0 2.0 0.0 | L |
| CPD282AC | 1993 Fall | Volunteerism for Counseling and PersonalDevelopment: A Service Learning Experience | | Service-learning field experience within private/public agencies, and citizen volunteer groups. | Prerequisites: Permission of Instructor. | CPD282AC may be repeated for a total of six (6) credit hours. Standard grading available according to procedures outlined in catalog. | Acad | LAB 3.0 3.0 0.0 | L |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| CPD298AA | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | Prerequisites: Permission of Program Director or Instructor. | | Acad | LAB 1.0 1.0 0.0 | Z |
| CPD298AB | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | Prerequisites: Permission of Program Director or Instructor. | | Acad | LAB 2.0 2.0 0.0 | Z |
| CPD298AC | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student | Prerequisites: Permission of Program Director or Instructor. | | Acad | LAB 3.0 3.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | development. COMMON COMPETENCY COURSE | | | | | |
| CPT110 | 2020 Fall 1 | Carpentry: Floor Systems | | Course covers the layout and construction procedures for floor systems, including: interpretation of construction drawings and specifications; selection of appropriate types of floor system components; and application of floor system materials. Course also includes estimation of the amount of materials needed for a floor assembly and some common alternative floor systems. | Prerequisites: None. | | CLK | 81 | |
| CPT111 | 2020 Fall 1 | Carpentry: Wall Systems | | Course covers the layout and construction procedures for wall systems, including: interpretation of construction drawings and specifications; selection of appropriate types of wall system components; and application of wall system materials. Course also includes estimation of the amount of materials needed for a wall assembly and some common alternative wall systems. | Prerequisites: None. | | CLK | 81 | |
| CPT112 | 2020 Fall 1 | Carpentry Ceiling Joist and Roof Framing | | Covers the layout and construction procedures for roof systems, including interpretation of construction drawings and specifications. Provides an overview of ceiling and roof construction methods, the different types of roofs used in residential construction, materials, estimation of materials, and the use of trusses in basic roof framing. | Prerequisites: None. | | CLK | 102 | |
| CPT213 | 2020 Fall 1 | Carpentry: Steel Framing | | Course covers the layout and construction procedures for steel framing, including: | Prerequisites: None. | | CLK | 41 | |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | interpretation of construction drawings and specifications; selection of appropriate types of steel framing components; and application of materials. Course also includes estimation of the amount of materials needed for a steel assembly. | | | | | |
| CPT214 | 2020 Fall 1 | Roof Systems and Building Envelopes | | Course covers the safety, codes, and construction procedures for roof systems and building envelopes, including interpretation of construction drawings and specifications. Students construct conventional roof structures and ceilings, and install exterior finish materials. | Prerequisites: None. | | CLK | 81 | |
| CPT215 | 2020 Fall 1 | Carpentry: Interior Finishes | | Course covers the layout and construction procedures for interior finishes such as: drywall, trim, doors, cabinetry and stairs, including interpretation of construction drawings and specifications. Provides an overview of construction methods, the different types of materials, and estimation of materials. | Prerequisites: None. | | CLK | 102 | |
| CPT216 | 2020 Fall 1 | Carpentry: Concrete Forms | | Course covers the safety, codes, and construction procedures for layout and construction of concrete footers and post-tensioned slabs, wall forms, and columns. Includes interpretation of construction drawings and estimation of materials. | Prerequisites: None. | | CLK | 81 | |
| CRA290 | 2014 Fall | Introduction to Clinical Research Associate | | Introduction to the Clinical Research Associate (CRA) profession as an advanced career path for clinical research coordinators. Topics include CRA role, career | Prerequisites: Bachelor or higher degree in life/health sciences and permission of Program Director. | | | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | development, study development process, monitoring, training and oversight, and regulations. Effective analysis, synthesis, and evaluation of topics through written discourse. | | | | | |
| CRA291 | 2010 Fall | Monitoring | | Basic monitoring skills and responsibilities required of the Clinical Research Associate (CRA). site selection and Initiation, routine monitoring and close-out visits; audit techniques and preparations; expectations and professionalism; monitoring plans, Standard Operating Procedure (SOP) adherence, training of sites, travel expectations and conduct; sponsor interactions (acting as a liaison); source document verification; review of patient charts; use of electronic systems; monitoring reports and letters; adverse event monitoring and reporting; recruitment and retention. | Prerequisites: A grade of C or better in CRA290. | Occ | | LEC 4.0 4.0 4.0 | S |
| CRA293 | 2010 Fall | Clinical Study Development | | Introduction to the Clinical Study Development Process and various roles of a Clinical Research Associate (CRA). Roles and responsibilities of in-house CRA versus Field CRA support, timelines of Clinical Study Development, overview of the ABC model, drug versus device study development and national and international considerations. | Prerequisites: A grade of C or better in CRA290. | | | LEC 3.0 3.0 3.0 | S |
| CRA295 | 2010 Fall | Ethics and Regulations | | Overview of the regulations, guidelines and resources associated with the Clinical Research Associate (CRA) role. Monitoring responsibilities, Code of | Prerequisites: A grade of C or better in CRA290. | Occ | | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Federal Regulations, International Conference of Harmonisation (ICH) guidelines, European Directives, Pharmaceutical Research and Manufacturers of America (PhRMA) principles, Food and Drug Administration (FDA) Guidelines for the Monitoring of Clinical Investigations and sponsor responsibilities for conduct of clinical trials and approval. | | | | | |
| CRA297 | 2010 Fall | Clinical Trial Material and Device Accountability | | Overview of Clinical Trial Material (CTM) from development and manufacturing to accountability and destruction along with comparable device processes. Roles of a Clinical Research Associate (CRA) relative to Clinical Trial Materials/Devices. Investigational New Drug (IND) applications, good manufacturing practices, importing and exporting of CTMs/devices, packaging and stability, accountability records, destruction requirements and review of regulatory considerations. | Prerequisites: A grade of C or better in CRA290. | | Occ | LEC 3.0 3.0 3.0 | S |
| CRC101 | 2023 Fall | Introduction to Clinical Research | | Introduction to the clinical research process. History, development and basic study designs in varied health, biomedical and biotechnical settings. Clinical trial development phases and regulatory protection for human subjects. Roles and responsibilities of the clinical research team and research organization. Good Clinical Practice (GCP) and | Prerequisites: Admission into the Clinical Data Coordination program or the Clinical Research Coordination program or permission of Program Director. | | Occ | LEC 4.0 4.0 4.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | International Committee on Harmonization (ICH) guidelines. Functions, research terminology, and general research funding of the Institutional Review Board (IRB) and Ethics Review Committee. | | | | | |
| CRC102 | 2023 Fall | Clinical Research Regulations | | Overview of legal and regulatory research compliance. Federal and international regulations, Good Clinical Practice (GCP) and International Council on Harmonization (ICH) guidelines. Roles, responsibilities and related regulations of Institutional Review Boards (IRB), Data Monitoring Boards and research organizations. Required forms, human subject protection, research integrity, ethical considerations, Health Insurance Portability and Accountability Act (HIPAA) and conflict of interest issues. | Prerequisites: Admission into the Clinical Data Coordination program or the Clinical Research Coordination program or permission of Program Director. | None | Occ | LEC 4.0 4.0 4.0 | S |
| CRC103 | 2023 Fall | Research Design and Data Management | | Major research design methodologies and data management. Interpretation of research design, organization of study charts and data, participant eligibility, and maintenance of screening/visit logs. Submission of adverse event forms. Overview of database structures, electronic data collection methods, and effective presentation of data in required reports. Tracking of investigational agents and preparation for audits and site visits by sponsors and/or regulators. Federal regulations | Prerequisites: Admission into the Clinical Data Coordination program or the Clinical Research Coordination program or permission of Program Director. | None | Occ | LEC 4.0 4.0 4.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | governing clinical trials electronic data submissions and transmissions. | | | | | |
| CRC104 | 2023 Fall | Clinical Data Coordination Practicum I | | Application of clinical data coordinator skills and functions in various clinical and research settings. Observation of approved investigational or research site activities and personnel as assigned or deemed appropriate by Supervisory Staff, applicable standard operating procedures and/ or Program Director. Forty (40) hours of supervised clinical data coordinator experience in a clinical research setting. | Prerequisites: Admission into the Clinical Data Coordination program or the Clinical Research Coordinator program or permission of Program Director. | CRC104 may be repeated for a total of three (3) credit hours. | Occ | LAB 1.0 3.0 0.0 | C |
| CRC151 | 2023 Fall | Introduction to Medical Devices in Clinical Evaluation | | Introduction to the role of the Clinical Research Coordinator (CRC) in medical device research. Overview of medical device regulatory requirements, the role of the Institutional Review Board (IRB), and classification of medical devices including Humanitarian Device Exemptions. Special emphasis on conduct of an investigational study and roles of the investigator, CRC, and the IRB. | Prerequisites: Admission into the Clinical Research Coordination program or permission of Program Director. | | Occ | LEC 2.0 2.0 2.0 | S |
| CRC152 | 2023 Fall | Research Ethics | | History of human experimentation and bioethics. Fundamentals of ethical principles including autonomy, beneficence, nonmaleficence and justice. Practical application of moral sensitivity, moral reasoning, moral commitment and perseverance, and moral implementation. Overview of ethical issues arising from biomedical research including | Prerequisites: Admission into the Clinical Research Coordination program or permission of Program Director. | | Occ | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | informed consent, vulnerable populations, using children and animals for research, and placebos and sham surgery in research. Includes Institutional Review Board (IRB`s), conflict of interest, plagiarism and data fabrication. | | | | | |
| CRC153 | 2023 Fall | Institutional Review Board in Clinical Research | | Examines the historical development, regulatory roles, responsibilities and functions of Institutional Review Board (IRB) membership and related stakeholder relationships. Comparisons of different IRB organizational and operational designs in relation to emerging technologies and implications for future research will be reviewed. Special emphasis on developing an understanding of the complexity of IRB roles, the implementation of state, national and international regulations and guidelines, and potential conflicts associated with the conduct of human research. Includes IRB functions, related regulations, ethical issues, current and future operational trends. | Prerequisites: Admission into the Clinical Research Coordination program or permission of Program Director. | | Occ | LEC 3.0 3.0 3.0 | S |
| CRC160 | 2023 Fall | Clinical Research Site Management | | Clinical research site organization, operation and management. Office setup, study initiation process, site maintenance, essential documentation requirements and binders, site evaluation and site closure. Understanding Institutional Review Boards (IRB) timeliness for submission, approval and study maintenance. Budget and contract negotiation, and | Prerequisites: Admission into the Clinical Research Coordination program or permission of Program Director. | | Occ | LEC 4.0 4.0 4.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | sponsor and regulatory audit components and preparation. Coordination with sponsors and related research entities; investigative staff training. Organization of process flow and effective interactions with IRB, Contract Research Organizations, sponsors, regulators, investigators, and community. | | | | | |
| CRC204 | 2023 Fall | Clinical Research Coordination Practicum II | | Application of clinical research coordinator skills and functions in various clinical research settings. Observation of approved investigational or research site activities and personnel as assigned or deemed appropriate by Supervisory Staff, applicable standard operating procedures and or Program Director. Eighty (80) hours of clinical research coordinator experience in a clinical research setting. | Prerequisites: Admission into the Clinical Research Coordination program or permission of Program Director. | CRC204 may be repeated for a total of six (6) credit hours. | Occ | LAB 2.0 6.0 0.0 | C |
| CRE101 | 2021 Spring | College Critical Reading and Critical Thinking | | Develop and apply critical thinking skills through critically reading varied and challenging materials. Includes analysis, evaluation, interpretation, and synthesis through at least two substantial writing and/or speaking tasks. | Prerequisites: A grade of C or better in [(ENG101 or ENG107) and (RDG095 or RDG100 or RDG100LL or RDG111 or RDG112 or RDG113)] or a grade of B or better in ALT100 or an appropriate district placement or permission of Instructor. | Course Attribute(s): COMMON COMPETENCY COURSE | Acad | LEC 3.0 3.0 3.0 | S |
| CRE101AT | 2021 Spring | College Critical Reading and Critical Thinking in Applied Technology | | Develop and apply critical thinking skills through critically reading varied and challenging materials relevant to current issues in applied technology. Includes analysis, evaluation, interpretation, and synthesis through at least two | Prerequisites: A grade of C or better in [(ENG101 or ENG107) and (RDG095 or RDG100 or RDG100LL or RDG111 or RDG112 or RDG113)] or a grade of B or better in ALT100 or an appropriate district | Course Attribute(s): Common Competency Course | Acad | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | substantial writing and/or speaking tasks. | placement or permission of Instructor. | | | | |
| CRE101BM | 2021 Spring | College Critical Reading and Critical Thinking in Business, Entrepreneurialism and Management | | Develop and apply critical thinking skills through critically reading varied and challenging materials relevant to current issues in business, entrepreneurialism and management. Includes analysis, evaluation, interpretation, and synthesis through at least two substantial writing and/or speaking tasks. | Prerequisites: A grade of C or better in [(ENG101 or ENG107) and (RDG095 or RDG100 or RDG100LL or RDG111 or RDG112 or RDG113)] or a grade of B or better in ALT100 or an appropriate district placement or permission of Instructor. | Course Attribute(s): Common Competency Course | Acad | LEC 3.0 3.0 3.0 | S |
| CRE101BS | 2021 Spring | College Critical Reading and Critical Thinking in Behavioral Sciences and Human Services | | Develop and apply critical thinking skills through critically reading varied and challenging materials relevant to current issues in behavioral sciences and human services. Includes analysis, evaluation, interpretation, and synthesis through at least two substantial writing and/or speaking tasks. | Prerequisites: A grade of C or better in [(ENG101 or ENG107) and (RDG095 or RDG100 or RDG100LL or RDG111 or RDG112 or RDG113)] or a grade of B or better in ALT100 or an appropriate district placement or permission of Instructor. | Course Attribute(s): Common Competency Course | Acad | LEC 3.0 3.0 3.0 | S |
| CRE101CS | 2021 Spring | College Critical Reading and Critical Thinking in Culture and Society | | Develop and apply critical thinking skills through critically reading varied and challenging materials relevant to current issues in culture and society. Includes analysis, evaluation, interpretation, and synthesis through at least two substantial writing and/or speaking tasks. | Prerequisites: A grade of C or better in [(ENG101 or ENG107) and (RDG095 or RDG100 or RDG100LL or RDG111 or RDG112 or RDG113)] or a grade of B or better in ALT100 or an appropriate district placement or permission of Instructor. | Course Attribute(s): Common Competency Course | Acad | LEC 3.0 3.0 3.0 | S |
| CRE101CT | 2021 Spring | College Critical Reading and Critical Thinking in Computer Information Technology | | Develop and apply critical thinking skills through critically reading varied and challenging materials relevant to current issues in computer information technology. Includes analysis, evaluation, interpretation, and synthesis through at least two | Prerequisites: A grade of C or better in [(ENG101 or ENG107) and (RDG095 or RDG100 or RDG100LL or RDG111 or RDG112 or RDG113)] or a grade of B or better in ALT100 or an appropriate district | Course Attribute(s): Common Competency Course | Acad | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | substantial writing and/or speaking tasks. | placement or permission of Instructor. | | | | |
| CRE101ED | 2021 Spring | College Critical Reading and Critical Thinking in Education | | Develop and apply critical thinking skills through critically reading varied and challenging materials relevant to current issues in education. Includes analysis, evaluation, interpretation, and synthesis through at least two substantial writing and/or speaking tasks. | Prerequisites: A grade of C or better in [(ENG101 or ENG107) and (RDG095 or RDG100 or RDG100LL or RDG111 or RDG112 or RDG113)] or a grade of B or better in ALT100 or an appropriate district placement or permission of Instructor. | Course Attribute(s): Common Competency Course | Acad | LEC 3.0 3.0 3.0 | S |
| CRE101HS | 2021 Spring | College Critical Reading and Critical Thinking in Health Sciences | | Develop and apply critical thinking skills through critically reading varied and challenging materials relevant to current issues in health sciences. Includes analysis, evaluation, interpretation, and synthesis through at least two substantial writing and/or speaking tasks. | Prerequisites: A grade of C or better in [(ENG101 or ENG107) and (RDG095 or RDG100 or RDG100LL or RDG111 or RDG112 or RDG113)] or a grade of B or better in ALT100 or an appropriate district placement or permission of Instructor. | Course Attribute(s): Common Competency Course | Acad | LEC 3.0 3.0 3.0 | S |
| CRE101SM | 2021 Spring | College Critical Reading and Critical Thinking in STEM | | Develop and apply critical thinking skills through critically reading varied and challenging materials relevant to current issues in science, technology, engineering, and mathematics (STEM). Includes analysis, evaluation, interpretation, and synthesis through at least two substantial writing and/or speaking tasks. | Prerequisites: A grade of C or better in [(ENG101 or ENG107) and (RDG095 or RDG100 or RDG100LL or RDG111 or RDG112 or RDG113)] or a grade of B or better in ALT100 or an appropriate district placement or permission of Instructor. | Course Attribute(s): Common Competency Course | Acad | LEC 3.0 3.0 3.0 | S |
| CRE101VA | 2021 Spring | College Critical Reading and Critical Thinking in Visual and Performing Arts | | Develop and apply critical thinking skills through critically reading varied and challenging materials relevant to current issues in visual and performing arts. Includes analysis, evaluation, interpretation, and synthesis through at least two | Prerequisites: A grade of C or better in [(ENG101 or ENG107) and (RDG095 or RDG100 or RDG100LL or RDG111 or RDG112 or RDG113)] or a grade of B or better in ALT100 or an appropriate district | Course Attribute(s): Common Competency Course | Acad | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | substantial writing and/or speaking tasks. | placement or permission of Instructor. | | | | |
| CRE201 | 2019 Spring | Critical Reading and Writing in a Global Society | | Critical evaluation of writings of authors from a variety of countries and cultures in order to gain a more global perspective of both universal and contemporary issues. Analysis, synthesis, and evaluation of various contemporary cultural viewpoints through at least two substantial writing and/or speaking tasks. | Prerequisites: A grade of C or better in (ENG101 or ENG107) and (CRE101 or exemption by score on the reading placement test). | Course Attribute(s): General Education Designation: Global Awareness - [G] General Education Designation: Literacy and Critical Inquiry - [L] | Acad | LEC 3.0 3.0 3.0 | S |
| CRE298AA | 2023 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. | Prerequisites: Permission of Program Director or Instructor. | | Acad | LAB 1.0 1.0 0.0 | Z |
| CRE298AB | 2023 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. | Prerequisites: Permission of Program Director or Instructor. | | Acad | LAB 2.0 2.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| CRE298AC | 2023 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. | Prerequisites: Permission of Program Director or Instructor. | | Acad | LAB 3.0 3.0 0.0 | Z |
| CRP101 | 2021 Fall | Orientation - Carpenter Apprenticeship | | Fundamental trade skills, employee-employer roles and responsibilities, and safe work practices needed for entry level performance in the construction industry. Emphasis on attaining standard industry safety credentials, practical experience using construction terminology, math and basic measuring techniques. Training for job site hazard recognition, accident prevention, safe tool and equipment operation. | Prerequisites: Apprentice status or permission of the Apprenticeship Coordinator. | | Occ | L+L 3.0 3.0 3.0 | T |
| CRP102 | 2022 Spring | Safety/Health Certifications for Carpentry - Carpenter Apprenticeship | | Promotes hand/power tool and equipment skill development for various construction applications. Scaffold building and equipment operating procedures will also be covered. Financial and life skills will be presented to help survive in the construction industry. Upon successful completion, students will be issued United Brotherhood of Carpenters (UBC) Scaffold | Prerequisites: Apprentice status or permission of the Apprenticeship Coordinator. | | Occ | L+L 3.0 3.0 3.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Erector-Welded Frame Qualification Card. | | | | | |
| CRP102AI | 1995 Spring | Concrete Formwork: Concrete Stair Forms | | Building stair forms from shop drawings; basic terminology related to stair form construction | Prerequisites: Registered apprentice status or permission of the Apprenticeship Coordinator. | | Occ | L+L 1.0 1.5 1.5 | A |
| CRP102AJ | 2021 Fall | Tilt-Up Construction I - Carpenter Apprenticeship | | Building a form for a tilt-up slab for commercial structures complete with all necessary inserts and block-outs for openings. | Prerequisites: Apprentice status or permission of the Apprenticeship Coordinator. | | Occ | L+L 1.0 1.5 1.5 | T |
| CRP102AN | 2010 Spring | Concrete Formwork: Culverts, Headwall and Wingwalls | | Box culvert design, form systems, areas, volumes and pressures. Culvert headwall, side walls and wingwall forms using a single and double whaler assembly. Concrete industry nomenclature. | Prerequisites: Registered apprentice status or permission of the Apprenticeship Coordinator. | | Occ | LEC 2.0 2.0 2.0 | A |
| CRP102AP | 1995 Spring | Concrete Formwork: Gang Forms | | Building and plumbing a section of gang form using a standard whaler system complete with all the necessary components and hardware | Prerequisites: Registered apprentice status or permission of the Apprenticeship Coordinator. | | Occ | L+L 1.0 1.5 1.5 | A |
| CRP103 | 2022 Spring | Tool and Equipment Applications - Carpenter Apprenticeship | | Safe and appropriate use of fall protection and emergency response procedures. Tool applications presented in this training will provide opportunities for tool skill mastery and equipment operation. | Prerequisites: Apprentice status or permission of the Apprenticeship Coordinator. | | Occ | L+L 3.0 3.0 3.0 | T |
| CRP103AI | 1995 Spring | Framing: Wood Stairs | | Building a set of stairs consisting of two flights and a landing from a given set of working drawings | Prerequisites: Registered apprentice status or permission of the Apprenticeship Coordinator. | | Occ | L+L 1.0 1.5 1.5 | A |
| CRP104 | 2021 Fall | Basic Wall Framing - Carpenter Apprenticeship | | Theory, methods, and procedures required to frame basic walls. Hands-on practice using proper tool techniques and appropriate materials. Introduction to print reading, basic wall layout, plating | Prerequisites: Apprentice status or permission of the Apprenticeship Coordinator. | | Occ | L+L 3.0 3.0 3.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | procedures, framing assembly and bracing. | | | | | |
| CRP105AC | 1995 Spring | Interior Finish: Running Trim | | Building a small frame trimmed out with a variety of moldings according to a set of shop drawings | Prerequisites: Registered apprentice status or permission of the Apprenticeship Coordinator. | | Occ | L+L 1.0 1.5 1.5 | A |
| CRP105AG | 1995 Spring | Interior Finish: Door Hardware | | Installation of door hardware including knob, latch, strike plate, hinge butts, and door closer. | Prerequisites: Registered Apprentice Status and a grade of C or better in CRP105AA or permission of the Apprenticeship Coordinator. | | Occ | L+L 1.0 1.5 1.5 | A |
| CRP105AI | 1995 Spring | Interior Finish: Metal Partitions | | Assembling metal partition unit complete with all panels and hardware | Prerequisites: Registered apprentice status or permission of the Apprenticeship Coordinator. | | Occ | L+L 1.0 1.5 1.5 | A |
| CRP105AJ | 1995 Spring | Interior Finish: Soffit Panel | | Building a soffit panel with trim and detailed projections as shown on a set of shop drawings | Prerequisites: Registered apprentice status or permission of the Apprenticeship Coordinator. | | Occ | L+L 1.0 1.5 1.5 | A |
| CRP106AA | 1995 Spring | Interior Systems: Metal Frame Walls | | Tools, materials, components and erection procedures of metal frame walls and soffits as shown per shop drawings | Prerequisites: Registered apprentice status or permission of the Apprenticeship Coordinator. | | Occ | L+L 1.0 1.5 1.5 | A |
| CRP106AB | 1995 Spring | Interior Systems: Dry Wall Application | | Tools, materials and installation procedures for dry wall application. | Prerequisites: Registered Apprentice Status and a grade of C or better in CRP106AA or permission of the Apprenticeship Coordinator. | | Occ | L+L 1.0 1.5 1.5 | A |
| CRP106AH | 1995 Spring | Interior Systems: Dry Wall Estimation of Material | | Reading and interpreting blueprints and shop drawings to estimate the amount of material needed for a dry wall project | Prerequisites: Registered apprentice status or permission of the Apprenticeship Coordinator. | | Occ | L+L 1.0 1.5 1.5 | A |
| CRP106AK | 2022 Spring | Interior Systems: Suspended Lay-In Ceilings - Carpenter Apprenticeship | | Tools, materials, components, and erection procedures for suspended lay-in ceilings | Prerequisites: Registered Apprentice status or permission of the Apprenticeship Coordinator. | | Occ | L+L 1.0 1.5 1.5 | A |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| CRP108 | 2021 Fall | Moldings and Trim - Carpenter Apprenticeship | | Course covers how moldings and trims are utilized to finish exterior and interior construction design features. | Prerequisites: Apprentice status or permission of the Apprenticeship Coordinator. | | Occ | L+L 3.0 3.0 3.0 | T |
| CRP110AA | 2002 Fall | Introduction to Carpentry I: History and Tools | | History, significance and benefits of labor unions. Successful and efficient labor relations. Carpentry in relation to other construction trades. Building trades organizations. Components of lumber. Hand and power tools used in carpentry. | Prerequisites: Registered Apprentice status with the Central Arizona Carpenters Joint Apprenticeship Training Committee or permission of Apprenticeship Coordinator. | | Occ | LEC 2.0 2.0 2.0 | S |
| CRP110AB | 2002 Fall | Introduction to Carpentry II: OSHA Safety | | Safe and proper use of hand and power tools. Safe work habits, first aid, and cardiopulmonary resuscitation (CPR) according to Occupational Safety and Health Administration (OSHA) regulations. | Prerequisites: Registered Apprentice status with the Central Arizona Carpenters Joint Apprenticeship Training Committee or permission of Apprenticeship Coordinator. | | Occ | LEC 2.0 2.0 2.0 | S |
| CRP113 | 2021 Fall | Basic Roof Framing - Carpenter Apprenticeship | | Introduction to basic gable roof framing, terminology, characteristics, and construction methods. Interpretation of print views and drawing elevations for job planning, rafter systems, and layout details. Review of basic rise, run, rafter angles, and length calculations. Framed wall construction to facilitate gable roof assembly techniques. | Prerequisites: Apprentice status or permission of the Apprenticeship Coordinator. | | Occ | L+L 3.0 3.0 3.0 | T |
| CRP114AA | 2002 Fall | Blueprint Reading for Carpenters I | | Types of blueprints and basic print reading. Symbols for materials. Construction details, standards, and specifications for brick veneer. Steel supports of plans for stores and apartments. | Prerequisites: Registered Apprentice status with the Central Arizona Carpenters Joint Apprenticeship Training Committee or permission of Apprenticeship Coordinator. | | Occ | LEC 2.0 2.0 2.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| CRP116AA | 2005 Fall | Concrete Formwork I | | Construction and installation techniques. Building site and layout factors. Parts of forms and related hardware. Function of concrete form work in walls, columns, beams, decks and retaining walls. Wall forms and prefabricated walls. Residential foundations. | Prerequisites: Registered apprentice status or permission of Apprenticeship Coordinator. | | Occ | LEC 2.0 2.0 2.0 | S |
| CRP116AB | 2005 Fall | Concrete Formwork II | | Construction and installation techniques. Elements of flatwork construction | Prerequisites: A grade of C or better in CRP116AA. | | | LEC 2.0 2.0 2.0 | S |
| CRP121 | 2021 Fall | Print Reading for Carpenters - Carpenter Apprenticeship | | Introduction to print reading skills for carpenters. Developing ability to interpret two-dimensional views, standard drawing methods, pictorial elements, visual and verbal communication cues. Recognizing parts of drawings, locating building and insulation features, calculating dimensions, and using views to determine construction methods. | Prerequisites: Apprentice status or permission of the Apprenticeship Coordinator. | Occ | Occ | L+L 3.0 3.0 3.0 | T |
| CRP123 | 2021 Fall | Wall Forming - Carpenter Apprenticeship | | Skills and procedures for forming reinforced concrete walls using single and double waler systems. Characteristics and application of built-in-place, prefabricated and specialty forms, wall forming, calculating layout dimensions and estimating. Overview of wall panel forming reinforcement methods, material preparation and hardware installation. | Prerequisites: Apprentice status or permission of the Apprenticeship Coordinator. | | Occ | L+L 3.0 3.0 3.0 | T |
| CRP124 | 2021 Fall | Foundations and Flatwork - Carpenter Apprenticeship | | Design and function of several types of foundations and concrete flatwork. Overview of methods, techniques and procedures for formwork layout, elevation, and construction including jobsite | Prerequisites: Apprentice status or permission of the Apprenticeship Coordinator. | | Occ | L+L 3.0 3.0 3.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | safety, print interpretation, material identification and basic use of builders' level. | | | | | |
| CRP130 | 2021 Fall | Basic Commercial Framing - Carpenter Apprenticeship | | Introduction to basic rake wall framing theory and commercial construction techniques and materials. | Prerequisites: Apprentice status or permission of the Apprenticeship Coordinator. | | Occ | L+L 2.0 2.0 2.0 | T |
| CRP131 | 2021 Fall | Commercial Floor Framing - Carpenter Apprenticeship | | Course covers floor joist construction and the various installation techniques used in the commercial industry. | Prerequisites: Apprentice status or permission of the Apprenticeship Coordinator. | | Occ | L+L 3.0 3.0 3.0 | T |
| CRP150 | 2022 Spring | Acoustical Ceilings - Carpenter Apprenticeship | | Introduction to basic acoustical ceiling installation in accordance with industry standards and utilizing proper techniques and procedures. Acoustical engineering and applicable building and seismic code requirements. | Prerequisites: Admission into the Southwest Carpenters Training Fund (SWCTF) Registered Apprenticeship program and permission of the GateWay Apprenticeship Office. | | | L+L 3.0 3.0 3.0 | T |
| CRP151 | 2022 Spring | Standard Acoustical Grids - Carpenter Apprenticeship | | Grid patterns considered standard for acoustical ceilings in the interior system construction industry. Methods and procedures used to form patterns. Students install several standard acoustical grid patterns to print specifications using proper techniques and procedures. | Prerequisites: Admission into the Southwest Carpenters Training Fund (SWCTF) Registered Apprenticeship program and permission of the GateWay Apprenticeship Office. | Occ | | L+L 3.0 3.0 3.0 | T |
| CRP152 | 2022 Spring | Acoustical Soffits - Carpenter Apprenticeship | | Construction of acoustical soffits in various configurations. Square and slant-faced, tapered, concealed, drywall suspension, and sloped soffits methods. Students complete selected acoustical soffit installation. | Prerequisites: Admission into the Southwest Carpenters Training Fund (SWCTF) Registered Apprenticeship program and permission of the GateWay Apprenticeship Office. | Occ | | L+L 3.0 3.0 3.0 | T |
| CRP153 | 2022 Spring | Concealed Glue-Up/Staple-Up System - Carpenter Apprenticeship | | Concealed and semi-concealed ceilings and soffits, glue-up and staple-up systems, and their design flexibility. Students employ | Prerequisites: Admission into the Southwest Carpenters Training Fund (SWCTF) Registered | Occ | | L+L 3.0 3.0 3.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | glue-up/staple-up techniques to install a concealed grid ceiling system. | Apprenticeship program and permission of the GateWay Apprenticeship Office. | | | | |
| CRP154 | 2022 Spring | Metal Pan and Security Systems - Carpenter Apprenticeship | | Design, function, and installation of metal pan and security systems incorporated into construction of suspended ceilings. Students install components to create a monolithic appearance in a suspension ceiling grid system. | Prerequisites: Admission into the Southwest Carpenters Training Fund (SWCTF) Registered Apprenticeship program and permission of the GateWay Apprenticeship Office. | | | L+L 3.0 3.0 3.0 | T |
| CRP160 | 2022 Spring | Basic Lathing - Carpenter Apprenticeship | | Advanced methods and application techniques for lath and trim products. Basic framing and lathing methods used for exterior/interior installations. Exterior waterproofing, lath, and trim installation procedures. Students complete an exterior lathing project. | Prerequisites: Admission into the Southwest Carpenters Training Fund (SWCTF) Registered Apprenticeship program and permission of the GateWay Apprenticeship Office. | Occ | | L+L 3.0 3.0 3.0 | T |
| CRP163 | 2022 Spring | Framing Ceilings and Soffits - Carpenter Apprenticeship | | Materials and their application for various types of fire-rated walls, ceilings, and soffits. Methods and procedures used for layout and template development. Drywall and trim applications. Types of tools and their associated safety, applied math, and print reading fundamentals. Students complete a ceiling and soffit project. | Prerequisites: Admission into the Southwest Carpenters Training Fund (SWCTF) Registered Apprenticeship program and permission of the GateWay Apprenticeship Office. | Occ | | L+L 3.0 3.0 3.0 | T |
| CRP164 | 2022 Spring | Basic Hand Finishing - Carpenter Apprenticeship | | Basic hand finishing skills using correct tools and materials. Terminology and description of finishing levels, hand tool manipulation techniques, material identification, and selection criteria. Manufacturer's guidelines for environmental conditions, proper mixture preparation, and use. Typical | Prerequisites: Admission into the Southwest Carpenters Training Fund (SWCTF) Registered Apprenticeship program and permission of the GateWay Apprenticeship Office. | Occ | | L+L 3.0 3.0 3.0 | T |



Occ

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | finish issues, causes, and solutions frequently employed. Tool techniques and application sequence explained and demonstrated. Importance of mixture consistency and proper coating sequence during level four hand finishing exercises. | | | | | |
| CRP165 | 2022 Spring | Framing Curves and Arches - Carpenter Apprenticeship | | Framing methods for curves and arches and their related structural limitations. Various wall and ceiling types, layout principles, and materials used for each. Lath applications and trim. Students complete a framing project including curves and arches. | Prerequisites: Admission into the Southwest Carpenters Training Fund (SWCTF) Registered Apprenticeship program and permission of the GateWay Apprenticeship Office. | | | L+L 3.0 3.0 3.0 | T |
| CRP166 | 2022 Spring | Automatic Finishing Tools - Carpenter Apprenticeship | | Basic automatic tool techniques and finish schedule interpretation. Hands-on instruction with machine tools and the importance of proper use, assembly, and breakdown. Basic maintenance and repair techniques and safe handling demonstration. Sanding selections will be reviewed. | Prerequisites: Admission into the Southwest Carpenters Training Fund (SWCTF) Registered Apprenticeship program and permission of the GateWay Apprenticeship Office. | Occ | | L+L 3.0 3.0 3.0 | T |
| CRP167 | 2022 Spring | Exterior Insulation Finish Systems - Carpenter Apprenticeship | | Introduction to exterior insulation finish systems including terminology, definitions, specifications, and properties. Reinforcing mesh installation and application of insulation board. Application methods and techniques for primers and finishes. Students complete an exterior insulation finishing system (EIFS) installation project. | Prerequisites: Admission into the Southwest Carpenters Training Fund (SWCTF) Registered Apprenticeship program and permission of the GateWay Apprenticeship Office. | Occ | | L+L 3.0 3.0 3.0 | T |
| CRP202 | 2021 Fall | Basic Stairs - Carpenter Apprenticeship | | Introduction to stair framing theory, terminology, and construction techniques. | Prerequisites: Apprentice status or permission of the Apprenticeship Coordinator. | Occ | Occ | L+L 3.0 3.0 3.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| CRP207 | 2021 Fall | Solar Installer Level I - Carpenter Apprenticeship | | Design and installation of several types of solar panel systems. Methods, sequences, and procedures for layout, assembly, mounting, and elevating/positioning for solar array construction will be presented. Upon successful completion, students will receive a United Brotherhood of Carpenters (UBC) Solar Installer Level 1 Qualification Card. | Prerequisites: Apprentice status or permission of the Apprenticeship Coordinator. | | Occ | L+L 2.0 2.0 2.0 | T |
| CRP210AA | 2005 Fall | Basic Framing I | | Construction and installation techniques. Floor framing and layout plate for specific spacing. | Prerequisites: Registered apprentice status or permission of Apprenticeship Coordinator. | | Occ | LEC 2.0 2.0 2.0 | S |
| CRP210AB | 2005 Fall | Basic Framing II | | Construction and installation techniques. Factors of weight, stress, tension, and compression. Truss connectors, bracing, and anchors. Gable, gambrel, hip, and shed roofs. Dormers.Intersecting roof. Roof trusses. Exterior deck. Fasteners, and connectors, and foundations | Prerequisites: A grade of C or better in CRP210AA. | | | LEC 2.0 2.0 2.0 | S |
| CRP211 | 2021 Fall | Storefront Installations - Carpenter Apprenticeship | | Installation process from constructing storefront openings to putting glass components into commercial storefront metal framing. An emphasis will be placed on print interpretation, window and door schedules, symbols, and material recognition. | Prerequisites: Apprentice status or permission of the Apprenticeship Coordinator. | Occ | Occ | L+L 3.0 3.0 3.0 | T |
| CRP212AA | 2002 Fall | Scaffolding for Carpenters | | Occupational Safety and Health Administration (OSHA) regulations for system scaffolding. Terminology, assembly procedures, platform safety and access, and dismantling of scaffolding. | Prerequisites: Registered Apprentice status with the Central Arizona Carpenters Joint Apprenticeship Training Committee or permission of | | Occ | LEC 2.0 2.0 2.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Scaffolding framework to include braces, tie-ins, and guylines. | Apprenticeship Coordinator. | | | | |
| CRP212AB | 2005 Fall | Level, Transit and Layout | | Terminology, types, parts, handling, set up, care, storage, transport, and use of leveling instruments. Leveling rods, leveling operations, vernier scales, linear and angular measurement. Conventional system of measurement. Builder's level and transit level. Simulated fieldwork exercises. | Prerequisites: Registered Apprentice status with the Central Arizona Carpenters Joint Apprenticeship Training Committee or permission of Apprenticeship Coordinator. | | Occ | LEC 2.0 2.0 2.0 | S |
| CRP212AC | 2021 Fall | Rigging - Carpenter Apprenticeship | | Lifting theory and practical rigging methods and procedures. Rigging attachment procedures, lifting equipment, limits of operation, and communication practices will be covered. | Prerequisites: Apprentice status or permission of the Apprenticeship Coordinator. | | Occ | LEC 2.0 2.0 2.0 | S |
| CRP214AA | 2021 Fall | Drywall Applications - Carpenter Apprenticeship | | History, advantages, and applications of drywall and wall framing. Drywall products and wall framing for interior partition work. Safe tool use and jobsite safety. Blueprints, specifications, and layout. Standard framing for partitions. Drywall installation on metal framework. Suspended ceiling systems. Commercial and residential installation for fire resistance, sound control, and safety. | Prerequisites: Apprentice status or permission of the Apprenticeship Coordinator. | | Occ | LEC 2.0 2.0 2.0 | S |
| CRP214AC | 2005 Fall | Interior Finish: Door Installation and Hardware | | Terms, tools, types of doors and door hardware. Installation procedures for doors and door hardware. Fabrication and installation of jam and trip components. | Prerequisites: Registered apprentice status or permission of Apprenticeship Coordinator. | | Occ | LEC 2.0 2.0 2.0 | S |
| CRP214AD | 2005 Fall | Cabinets and Tops | | Fundamentals, terms, tools, safety. Types of wood and glue. Case construction: joints, layout, cutting, assembly. Hardware, plastic | Prerequisites: Registered apprentice status or permission of Apprenticeship Coordinator. | | Occ | LEC 2.0 2.0 2.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | laminates, completed cabinets, completed tops. Installation procedures. | | | | | |
| CRP215 | 2022 Spring | Drywall/Acoustical Ceilings - Carpenter Apprenticeship | | Materials and methods used for acoustical ceilings combined with drywall installation. Seismic codes, materials, and construction requirements reviewed. Green building rating systems applied to selected acoustical and drywall materials. Installation for various grid systems. Students complete a drywall acoustical ceiling project. | Prerequisites: Admission into the Southwest Carpenters Training Fund (SWCTF) Registered Apprenticeship program and permission of the GateWay Apprenticeship Office. | | | L+L 3.0 3.0 3.0 | T |
| CRP216 | 2022 Spring | Designer and Specialty Trims - Carpenter Apprenticeship | | Specialty skills to produce a professionally finished edge for designer ceiling installations. Techniques used to produce multiple ceiling variations using the Compasso trim system. | Prerequisites: Admission into the Southwest Carpenters Training Fund (SWCTF) Registered Apprenticeship program and permission of the GateWay Apprenticeship Office. | Occ | | L+L 3.0 3.0 3.0 | T |
| CRP217 | 2022 Spring | Drywall Installation/Finish Trims - Carpenter Apprenticeship | | Introduction to drywall handling methods, applications, and recommended levels of drywall finish to achieve desired aesthetics. Emphasis placed on trim attachment and finishing techniques. Identification of various types of finish trim. Students demonstrate proficiency in the proper use of automatic taping tools. | Prerequisites: Admission into the Southwest Carpenters Training Fund (SWCTF) Registered Apprenticeship program and permission of the GateWay Apprenticeship Office. | Occ | | L+L 3.0 3.0 3.0 | T |
| CRP221 | 2021 Fall | Advanced Print Reading - Carpenter Apprenticeship | | Analyze multi-view drawings to determine construction type. Locate benchmark and building elements. Review codes, references, and perform calculations for construction/insulation planning. | Prerequisites: Apprentice status or permission of the Apprenticeship Coordinator. | Occ | Occ | L+L 2.0 2.0 2.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| CRP222 | 2021 Fall | Bridge Construction - Carpenter Apprenticeship | | Overview of basic bridge construction including exterior and interior girders, edge forms, bulkheads, and hinge forms. Job-built and precast formwork methods, panel construction, assembly, and hardware installation tasks. Review of related safety, math, and print reading. | Prerequisites: Apprentice status or permission of the Apprenticeship Coordinator. | | Occ | L+L 3.0 3.0 3.0 | T |
| CRP226 | 2022 Spring | Air, Moisture, and Thermal Barriers - Carpenter Apprenticeship | | Increasing building envelope energy efficiency using correctly installed air, moisture, and thermal barrier systems. Hands-on installation exercises using building sealing products. | Prerequisites: Admission into the Southwest Carpenters Training Fund (SWCTF) Registered Apprenticeship program and permission of the GateWay Apprenticeship Office. | | | L+L 3.0 3.0 3.0 | T |
| CRP227 | 2021 Fall | Green Building and Weatherization - Carpenter Apprenticeship | | Explanation of building envelope science. Audit procedures, discuss testing and reporting mechanisms used to measure inefficiencies. Course provides novice workers with fundamental skills to properly install the beneficial "green" and cost-effective, energy-efficient retrofits for residential buildings. | Prerequisites: Apprentice status or permission of the Apprenticeship Coordinator. | Occ | Occ | L+L 2.0 2.0 2.0 | T |
| CRP228 | 2021 Fall | Water Treatment Facilities - Carpenter Apprenticeship | | Instruction in the detailing, layout, and construction of concrete formwork and waterstop used in water treatment facilities. | Prerequisites: Apprentice status or permission of the Apprenticeship Coordinator. | | Occ | L+L 3.0 3.0 3.0 | T |
| CRP232 | 2021 Fall | Stair and Ramp Forming - Carpenter Apprenticeship | | Methods, procedures and practices used to form stair and ramp structures including configuration and dimensions. Review of Stinger riser and stair thread calculations, state and federal building codes. | Prerequisites: Apprentice status or permission of the Apprenticeship Coordinator. | | Occ | L+L 3.0 3.0 3.0 | T |
| CRP233 | 2021 Fall | Basic Metal Framing - Carpenter Apprenticeship | | Overview of residential metal framing theory and construction techniques. | Prerequisites: Apprentice status or permission of the | | | L+L 3.0 3.0 3.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Interpretation of prints for job planning and estimation of materials. Layout and detail of wall plates, measuring techniques, calculating principles, wall and roof assembly and installation techniques. | Apprenticeship Coordinator. | | | | |
| CRP234 | 2021 Fall | Transit Level/Laser - Carpenter Apprenticeship | | Detailing, layout and construction of abutments used in the heavy highway industry. Overview of assembly components, key terms and abutment anatomy; footings; piers and retaining walls. Techniques for laying out keyway centerline and footing formwork construction. | Prerequisites: Apprentice status or permission of the Apprenticeship Coordinator. | | Occ | L+L 3.0 3.0 3.0 | T |
| CRP235 | 2022 Spring | Advanced Metal Framing - Carpenter Apprenticeship | | Review of basic metal framing. Detailed procedures for framing curved, serpentine, and elliptical non-load-bearing partitions. Use of standard light gage components and other materials. Project emphasizing advanced techniques to expedite work processes. | Prerequisites: Admission into the Southwest Carpenters Training Fund (SWCTF) Registered Apprenticeship program and permission of the GateWay Apprenticeship Office. | | | L+L 3.0 3.0 3.0 | T |
| CRP241 | 2018 Fall | Gang Forms/Columns | | Formwork types, applications and construction methods for gang and column forms using built and manufactured forming systems. Heavy timber gang forms and use of taper ties, bracing, and bulkhead tables. | Prerequisites: Registered Apprentice status with the Central Arizona Carpenters Joint Apprenticeship Training Committee or permission of Apprenticeship Coordinator. | Occ | Occ | L+L 3.0 3.0 3.0 | T |
| CRP242 | 2021 Fall | Doors/Door Hardware - Carpenter Apprenticeship | | Installation process for several types of security and exit door hardware. Print interpretation, codes, door schedules, symbols, and hardware recognition. | Prerequisites: Apprentice status or permission of the Apprenticeship Coordinator. | | Occ | L+L 3.0 3.0 3.0 | T |
| CRP243 | 2018 Fall | Scaffold Erector Qualification | | Safety and terminology related to scaffold built applications, elevated platform use, span | Prerequisites: Registered Apprentice status with the Central | | | L+L 3.0 3.0 3.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | and loading criteria, access and egress, stability, and structural connections and inspections. Project drawing review for locating dimensions, determining layout and scaffold material requirements. Erection/dismantling sequence for the development of job planning, preparation skills and applied math. | Arizona Carpenters Joint Apprenticeship Training Committee or permission of Apprenticeship Coordinator. | | | | |
| CRP244 | 2021 Fall | Cabinet Installation - Carpenter Apprenticeship | | Cabinet installation from establishing the design layout to attaching countertops. Print interpretation, job planning, scribing techniques, and proper installation sequence. | Prerequisites: Apprentice status or permission of the Apprenticeship Coordinator. | | Occ | L+L 3.0 3.0 3.0 | T |
| CRP250 | 2022 Spring | Prefab/Sound Panels - Carpenter Apprenticeship | | Basic description of acoustical effectiveness of prefabricated sound panels. Planning, location, and installation of ceiling and wall panels. | Prerequisites: Admission into the Southwest Carpenters Training Fund (SWCTF) Registered Apprenticeship program and permission of the GateWay Apprenticeship Office. | | | L+L 3.0 3.0 3.0 | T |
| CRP251 | 2022 Spring | Advanced Acoustical Ceilings Layout - Carpenter Apprenticeship | | Advanced layout methods used to complete accent acoustical ceiling installations. Seismic codes and hanger requirements. Layout techniques for establishing geometric designs. Students complete acoustical ceiling layout projects. | Prerequisites: Admission into the Southwest Carpenters Training Fund (SWCTF) Registered Apprenticeship program and permission of the GateWay Apprenticeship Office. | Occ | | L+L 3.0 3.0 3.0 | T |
| CRP252 | 2022 Spring | Advanced Acoustical Ceiling Installations - Carpenter Apprenticeship | | Identifying materials and methods used for the advanced installation of acoustical ceilings. Installation for custom and intricate grid systems. Green building rating systems applied to selected acoustical materials. Students complete a complex acoustical ceiling project. | Prerequisites: Admission into the Southwest Carpenters Training Fund (SWCTF) Registered Apprenticeship program and permission of the GateWay Apprenticeship Office. | Occ | | L+L 3.0 3.0 3.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| CRP253 | 2022 Spring | Framing Curves and Arches - Carpenter Apprenticeship | | Framing methods for curves and arches and their related structural limitations. Identifying various wall and ceiling types and layout principles and materials used for each. Lath applications and trim. Students complete a framing project that includes curves and arches. | Prerequisites: Admission into the Southwest Carpenters Training Fund (SWCTF) Registered Apprenticeship program and permission of the GateWay Apprenticeship Office. | | | L+L 3.0 3.0 3.0 | T |
| CRP255 | 2022 Spring | Fire Stopping/Fire Proofing Procedures - Carpenter Apprenticeship | | Methods, technical skills, and fire stopping/fire proofing materials used to meet industry code requirements. Students apply and test fire stopping/fire proofing materials in a controlled environment. | Prerequisites: Admission into the Southwest Carpenters Training Fund (SWCTF) Registered Apprenticeship program and permission of the GateWay Apprenticeship Office. | Occ | | L+L 3.0 3.0 3.0 | T |
| CRP260 | 2022 Spring | Advanced Lathing - Carpenter Apprenticeship | | Advanced skills for the interior/exterior application of lathing materials. Wall anatomy terminology, applicable codes, lathing materials, and waterproofing methods. Includes key discussions to draw attention to typical installation issues, causes, and solutions frequently employed to correct flaws. Detailed project drawing review, providing practical experience for design analysis, material requirement, and code assessment. Emphasis on construction sequence will foster the development of job planning, preparation, and applied math skills. Importance of applicable building codes, tool use, safety, accuracy, construction sequence, and proper use of waterproofing techniques will | Prerequisites: Admission into the Southwest Carpenters Training Fund (SWCTF) Registered Apprenticeship program and permission of the GateWay Apprenticeship Office. | Occ<br><br>Occ | | L+L 3.0 3.0 3.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | be stressed during lathing exercises. | | | | | |
| CRP261 | 2022 Spring | Free-Form Lathing - Carpenter Apprenticeship | | Comprehensive study of the theory and techniques used for development of freeform lathing projects. Students interpret gridline drawings, lay out and build lath cage work, and apply the appropriate lath(s) to achieve the desired or designed form or structure. | Prerequisites: Admission into the Southwest Carpenters Training Fund (SWCTF) Registered Apprenticeship program and permission of the GateWay Apprenticeship Office. | | | L+L 3.0 3.0 3.0 | T |
| CRP263 | 2022 Spring | Ceiling and Soffit Finishing - Carpenter Apprenticeship | | Advanced level of finishing skills for applications with architecturally detailed ceilings and soffits. Determining type and quantity of materials for various designs and differentiating between levels of finish. Guided practice with a combination of hand and automatic tool techniques, promoting manipulative ability required for a successful result. Variety of finish trims integrated into each method of finish. Inspection criteria for evaluating finish levels. | Prerequisites: Admission into the Southwest Carpenters Training Fund (SWCTF) Registered Apprenticeship program and permission of the GateWay Apprenticeship Office. | Occ<br><br>Occ | | L+L 3.0 3.0 3.0 | T |
| CRP264 | 2022 Spring | Advanced Hand Finishing - Carpenter Apprenticeship | | Advanced methods and applications using hand tool techniques. Proper sequence of operation, phases, and materials to be used in order to produce a higher-level finished product to industry standards. Curved and radius wall characteristics for finish levels. Wall frame components, materials used, surface preparation, and application methods. Students complete a project to a level five standard. | Prerequisites: Admission into the Southwest Carpenters Training Fund (SWCTF) Registered Apprenticeship program and permission of the GateWay Apprenticeship Office. | Occ | | L+L 3.0 3.0 3.0 | T |
| CRP267 | 2022 Spring | Wet Wall Finishes - Carpenter Apprenticeship | | Industry methods, mediums, and typical applications of wet wall finishes. Includes terminology and description of | Prerequisites: Admission into the Southwest Carpenters Training Fund (SWCTF) | | | L+L 3.0 3.0 3.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | industry standard finishing levels, application tool types and techniques, and material identification and selection. Manufacturer's guidelines highlighting the environmental conditions for proper mixture preparation and use. Key discussions drawing attention to typical finish issues, causes, and solutions frequently employed. Emphasis on the selection and use of low volatile organic compounds (VOC) products. Importance of mixture consistency and proper coating sequence during wet wall finishing exercises. | Registered Apprenticeship program and permission of the GateWay Apprenticeship Office. | | | | |
| CRP268 | 2022 Spring | Decorative Trims - Carpenter Apprenticeship | | Advanced hand and automatic tool finishing techniques used to apply decorative trims. Product information for metal, paper, plastics, and art beads. Special attention given to coating and sanding sequence of selected specialty trim installations and waste reduction. | Prerequisites: Admission into the Southwest Carpenters Training Fund (SWCTF) Registered Apprenticeship program and permission of the GateWay Apprenticeship Office. | | | L+L 3.0 3.0 3.0 | T |
| CRP280 | 2022 Spring | Total Station (Robotics) - Carpenter Apprenticeship | | Terminology, optical principles, and operating procedures for transit and laser levels. Students will set up levels, determine benchmarks, and take and record elevation readings. | Prerequisites: Admission into the Southwest Carpenters Training Fund (SWCTF) Registered Apprenticeship program and permission of the GateWay Apprenticeship Office. | Occ | | L+L 3.0 3.0 3.0 | T |
| CRP296WA | 2002 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or | Occ | Occ | LAB 1.0 5.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor. | | | | |
| CRP296WB | 2002 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor. | | Occ | LAB 2.0 10.0 0.0 | Z |
| CRP296WC | 2002 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor. | | Occ | LAB 3.0 15.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| CRP296WD | 2002 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor. | | Occ | LAB 4.0 20.0 0.0 | Z |
| CRP298AA | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | Prerequisites: Permission of Program Director or Instructor. | | Occ | LAB 1.0 1.0 0.0 | Z |
| CRP298AB | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and | Prerequisites: Permission of Program Director or Instructor. | | Occ | LAB 2.0 2.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | | | | | |
| CRP298AC | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | Prerequisites: Permission of Program Director or Instructor. | | Occ | LAB 3.0 3.0 0.0 | Z |
| CRW120 | 1997 Fall | Introduction to Writing Children's Literature | | Overview of writing children's literature. Emphasis on genres and standards for quality. Development of techniques in reading, evaluating, writing, revising, and editing literature written for children ENH291 suggested but not required | Prerequisites: None, ENH291 suggested but not required. | | | LEC 3.0 3.0 3.0 | S |
| CRW150 | 2018 Summer | Introduction to Creative Writing | | Introduction to the basic aesthetics and techniques in contemporary creative writing within a variety of genres. Introduction to the analytical concepts and terminology necessary to understand, interpret, and enact contemporary creative writing. Facilitation of writing practices and evaluation. Introduction to literature's role in society. | Prerequisites: None. | Acad | Acad | LEC 3.0 3.0 3.0 | S |
| CRW160 | 1996 Spring | Introduction to Writing Poetry | | Prewriting (invention and discovery); writing; analyzing and evaluating (in workshop); and revising to practice manipulating various elements of poetry, critique one's own | Prerequisites: None. CRW150 recommended but not required. | | | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | and the poetry of others, and produce a portfolio of finished, marketable poems . | | | | | |
| CRW161 | 2006 Spring | Focused Topics in Writing: Poetry | | Analysis, writing, and revision of genre or elements within poetry. | Prerequisites: None. CRW150 suggested but not required. | CRW161 may be repeated for a total of three (3) credit hours. | Acad | LEC 1.0 1.0 1.0 | S |
| CRW170 | 2017 Summer | Introduction to Writing Fiction | | Practice in writing fiction through a process of prewriting (invention and discovery), writing, analysis and evaluation (in workshop), and revision; practice in manipulating various elements and forms of fiction. | Prerequisites: None. CRW150 recommended but not required. | | | LEC 3.0 3.0 3.0 | S |
| CRW172 | 2009 Fall | Introduction to Comic Book Writing | | Introduction to elements and techniques of comic book writing in its specific form; teaches terminology and concepts needed for the successful participation in writing workshops; focuses on proposal outline, planning, structure facilitates writing practice (including character study) and evaluation; offers individual suggestions in the student's development in this genre. | Prerequisites: None. | Acad | Acad | LEC 3.0 3.0 3.0 | S |
| CRW176 | 2020 Fall | Writing Narrative for Video Games | | Provides an introduction to narrative theory as it relates to video game production. Delivers a variety of video game storylines, narrative theories, and processes for narrative development in video games. Terminology and video game industry standards are covered. Offers discussion of team building and the role of video games in society. | Prerequisites: None. | | Acad | LEC 3.0 3.0 3.0 | S |
| CRW180 | 1996 Spring | Introduction to Writing Nonfiction | | Practice in writing creative nonfiction, including autobiography and biography, the essay, reviews, and humor using a process of invention | Prerequisites: None. CRW150 recommended but not required. | | | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | and discovery, writing, analysis, evaluation, and revision. Combines lecture, discussion, and workshop, leading to the production of marketable quality creative nonfiction. | | | | | |
| CRW190 | 1996 Spring | Introduction to Screenwriting | | Overview of screenwriting elements; introduction to screenwriting techniques CRW150 recommended but not required. | Prerequisites: None. CRW150 recommended but not required. | | | LEC 3.0 3.0 3.0 | S |
| CRW191 | 2006 Spring | Focused Topics in Writing: Plays | | Analysis, writing, and revision of genre or elements within plays and/or motion picture screenplays. | Prerequisites: None. CRW150 suggested but not required. | CRW191 may be repeated for a total of three (3) credit hours. | Acad | LEC 1.0 1.0 1.0 | S |
| CRW200 | 2011 Spring | Readings for Writers | | Close analysis and interpretation of selected literary texts designed to strengthen the students' own writing by extending their familiarity with the genre in which they write and their knowledge of selected literary elements. One-on-one meetings between student and instructor. | Prerequisites: A grade of C or better in RW150 or permission of Instructor. | CRW200 may be repeated for a total of six (6) credits.<br><br>Acad | Acad | LAB 1.0 1.0 0.0 | C |
| CRW201 | 2011 Summer I | Portfolio | | Close analysis of the creative writing portfolio culminating in selection, revision, editing, and compiling of the student's own literary work in a portfolio. Students meet individually with instructor to choose, prepare, and compile their work. | Prerequisites: (Acceptance into Creative Writing Certificate Program and completion of at least nine (9) credit hours in creative writing (CRW)), or permission of Program Director. | CRW201 may be repeated for a total of two (2) credit hours. | Acad | LAB 1.0 1.0 0.0 | C |
| CRW202 | 2004 Spring | The Writer as Witness | | Studio course focusing on writing with the writer as witness of the world: pre-writing, writing, analysis, evaluation, and writing of monologue and dialogue in various formats | Prerequisites: A grade of C or better in CRW150 or permission of Instructor. | | Acad | LEC 3.0 3.0 3.0 | S |
| CRW203 | 2004 Spring | Dialogue | | Studio course focusing on writing dialogue in a variety of genres; prewriting, writing, | Prerequisites: A grade of C or better in | | | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | analysis, evaluation, and writing of monologue and dialogue in various formats | CRW150 or permission of Instructor. | | | | |
| CRW204 | 2004 Spring | Journaling | | Studio course focusing on journal writing | Prerequisites: A grade of C or better in CRW150 or permission of Instructor. | | Acad | LEC 3.0 3.0 3.0 | S |
| CRW220 | 1997 Fall | Intermediate Writing Children's Literature | | Application of techniques in writing literature for children. Emphasis on independent writing, self-evaluation, and revision. Includes completion of a major writing project of marketable quality | Prerequisites: A grade of C or better in CRW120 or permission of Instructor. | | Acad | LEC 3.0 3.0 3.0 | S |
| CRW251 | 2012 Fall | Topics in Creative Writing | | Analysis, writing, and revision focused on a selected element applicable to all genres of creative writing. | Prerequisites: None. CRW150 recommended. | CRW251 may be repeated, topic must be different, for a total of nine (9) credit hours. | Acad | LEC 3.0 3.0 3.0 | S |
| CRW260 | 2010 Spring | Intermediate Poetry Writing | | Emphasis on writing a series of original poems; analysis and evaluation of the functions and effects of established works of poetry; concentration on evaluation and revising students' poetry through intensive workshopping. | Prerequisites: A grade of C or better in CRW160 or permission of Instructor. | | Acad | LEC 3.0 3.0 3.0 | S |
| CRW261 | 2004 Spring | Topics in Writing: Poetry | | Analysis, writing, and revision of genre or element within poetry | Prerequisites: A grade of C or better in CRW150 or permission of Instructor. | | Acad | LEC 3.0 3.0 3.0 | S |
| CRW270 | 2012 Spring | Intermediate Fiction Writing | | Writing original short stories; analysis of works of fiction; concentration on revising students' fiction through intensive workshopping. | Prerequisites: A grade of C or better in CRW170. | | Acad | LEC 3.0 3.0 3.0 | S |
| CRW271 | 2004 Spring | Topics in Writing: Fiction | | Analysis, writing, and revision of genre or element within fiction | Prerequisites: A grade of C or better in CRW150 or permission of Instructor. | | Acad | LEC 3.0 3.0 3.0 | S |
| CRW272 | 2004 Spring | Planning and Structuring the Novel | | Focus on planning, structuring, and beginning a novel; prewriting, writing, analysis, evaluation, and revision of novel plans and excerpts | Prerequisites: A grade of C or better in CRW150 or permission of Instructor. | | Acad | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| CRW273 | 2004 Spring | Writing the Novel | | Provides the beginning novelist with structure, support, and guidance vital to sustained writing; focus on establishing goals and using critique sessions with instructor and peers to draft a novel; open- and topic-focused in-class forums, novel writing, peer and instructor critiques | Prerequisites: A grade of C or better in CRW272 or permission of Instructor. | | Acad | LEC 3.0 3.0 3.0 | S |
| CRW274 | 2004 Spring | Revising the Novel | | Studio course workshop format. Requires a complete novel finished, in manuscript, ready for revision and polishing | Prerequisites: A grade of C or better in CRW273 or permission of Instructor. | | Acad | LEC 3.0 3.0 3.0 | S |
| CRW281 | 2004 Spring | Topics in Writing: Non-Fiction | | Analysis, writing, and revision of genre or element within non-fiction | Prerequisites: A grade of C or better in CRW150 or permission of Instructor. | | Acad | LEC 3.0 3.0 3.0 | S |
| CRW290 | 2004 Spring | Intermediate Screenwriting | | Drafting and revision of original screenplay; overview of marketing a screenplay | Prerequisites: A grade of C or better in CRW190 or permission of Instructor. | | Acad | LEC 3.0 3.0 3.0 | S |
| CRW291 | 2004 Spring | Topics in Writing: Plays | | Analysis, writing, and revision of genre or element within plays and/or motion picture screenplays | Prerequisites: A grade of C or better in CRW150 or permission of Instructor. | | Acad | LEC 3.0 3.0 3.0 | S |
| CRW298AA | 1995 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. | Prerequisites: Permission of Program Director or Instructor. | Course Attribute(s): COMMON COMPETENCY COURSE | Acad | LAB 1.0 1.0 0.0 | Z |
| CRW298AB | 1995 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured | Prerequisites: Permission of Program Director or Instructor. | Course Attribute(s): COMMON COMPETENCY COURSE | Acad | LAB 2.0 2.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. | | | | | |
| CRW298AC | 1995 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. | Prerequisites: Permission of Program Director or Instructor. | Course Attribute(s): COMMON COMPETENCY COURSE | Acad | LAB 3.0 3.0 0.0 | Z |
| CSC100 | 2022 Fall | Introduction to Computer Science (C++) | | Concepts of problem solving, structured programming in C++, fundamental algorithms and techniques, and computer system concepts. Social and ethical responsibilities. Intended for majors other than Computer Science. | Prerequisites: A grade of C or better in MAT095 or MAT096 or MAT114 or MAT115 or MAT12+ or an appropriate District placement for MAT15+ or higher or permission of Instructor or Department/Division Chair. | | | L+L 3.0 3.0 3.0 | T |
| CSC100AA | 2022 Fall | Introduction to Computer Science (C++) | | Concepts of problem solving, structured programming in C++, fundamental algorithms and techniques, and computer system concepts. Social and ethical responsibilities. Intended for majors other than Computer Science. | Prerequisites: A grade of C or better in MAT095 or MAT096 or MAT114 or MAT115 or MAT12+ or an appropriate District placement for MAT15+ or higher or permission | Acad | Acad | L+L 3.0 4.0 4.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | of Instructor or Department/Division Chair. | | | | |
| CSC100AB | 2022 Fall | Introduction to Computer Science (C++) | | Concepts of problem-solving, structured programming in C++, fundamental algorithms and techniques, and computer system concepts. Social and ethical responsibilities. Intended for majors other than Computer Science. | Prerequisites: A grade of C or better in MAT095 or MAT096 or MAT114 or MAT115 or MAT12+ or an appropriate District placement for MAT15+ or higher or permission of Instructor or Department/Division Chair. | | | L+L 4.0 4.0 4.0 | T |
| CSC110 | 2022 Fall | Introduction to Computer Science (Java) | | Concepts of problem-solving, structured and object-oriented programming in Java, fundamental algorithms and techniques and computer system concepts. Social and ethical responsibilities. Intended for Computer Science and Computer Systems Engineering majors. | Prerequisites: A grade of C or better in MAT095 or MAT096 or MAT114 or MAT115 or MAT12+ or an appropriate District placement for MAT15+ or higher or permission of Instructor or Department/Division Chair. | Acad | | L+L 3.0 3.0 3.0 | T |
| CSC110AA | 2022 Fall | Introduction to Computer Science (Java) | | Concepts of problem-solving, structured and object-oriented programming in Java, fundamental algorithms and techniques and computer system concepts. Social and ethical responsibilities. Intended for Computer Science and Computer Systems Engineering majors. | Prerequisites: A grade of C or better in MAT095 or MAT096 or MAT114 or MAT115 or MAT12+ or an appropriate District placement for MAT15+ or higher or permission of Instructor or Department/Division Chair. | Acad | | L+L 3.0 4.0 4.0 | T |
| CSC110AB | 2022 Fall | Introduction to Computer Science (Java) | | Concepts of problem-solving, structured and object-oriented programming in Java, fundamental algorithms and techniques and computer system concepts. Social and ethical responsibilities. Intended for Computer Science and Computer Systems Engineering majors. | Prerequisites: A grade of C or better in MAT095 or MAT096 or MAT114 or MAT115 or MAT12+ or an appropriate District placement for MAT15+ or higher or permission of Instructor or | Acad | | L+L 4.0 4.0 4.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | Department/Division Chair. | | | | |
| CSC120 | 2019 Fall | Digital Design Fundamentals | EEE120 | Number systems, conversion methods, binary and complement arithmetic, Boolean switching algebra and circuit minimization techniques. Analysis and design of combinational logic, flip-flops, simple counters, registers, ROMs, PLDs, synchronous and asynchronous sequential circuits, and state reduction techniques. Building physical circuits. | Prerequisites: None. Corequisites: CSC100 or CSC110 or permission of Instructor. | | Acad | L+L 4.0 6.0 6.0 | T |
| CSC150 | 2018 Fall | Programming in C/C++ | | Introduction to C and C++ programming. Flow control, functions, pointers, data structures, file handling, and introduction to object-oriented programming | Prerequisites: Permission of Instructor. | Course Attribute(s): General Education Designation: Computer/Statistics/Quantitative Applications - [CS] | Acad | L+L 3.0 4.0 4.0 | T |
| CSC150AA | 1999 Fall | Programming in C/C++ | | Introduction to C and C++ programming. Flow control, functions, pointers, data structures, file handling, and introduction to object-oriented programming | Prerequisites: Permission of Instructor. | Course Attribute(s): General Education Designation: Computer/Statistics/Quantitative Applications - [CS] | Acad | LEC 4.0 4.0 4.0 | S |
| CSC180 | 2011 Spring | Computer Literacy | | Introduction to computers and technology and their impact on society. Explores technology, current topics in computing, applications and related issues. Students gain fluency in integrating technology to solve problems using computational thinking. Use of application software to create documents, spreadsheets, databases, e-mail and text files, and use of Internet browsers. | Prerequisites: None. | Course Attribute(s): General Education Designation: Computer/Statistics/Quantitative Applications - [CS] | Acad | LEC 3.0 3.0 3.0 | S |
| CSC180AA | 2018 Fall | Computer Literacy | | Introduction to computers and technology and their impact on society. Explores technology, current topics in | Prerequisites: None. | Course Attribute(s): General Education Designation: Computer/Statistics/Quantitative Applications - [CS] | Acad | L+L 3.0 4.0 4.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | computing, applications and related issues. Students gain fluency in integrating technology to solve problems using computational thinking. Use of application software to create documents, spreadsheets, databases, e-mail and text files, and use of Internet browsers. | | | | | |
| CSC180AB | 2011 Spring | Computer Literacy | | Introduction to computers and technology and their impact on society. Explores technology, current topics in computing, applications and related issues. Students gain fluency in integrating technology to solve problems using computational thinking. Use of application software to create documents, spreadsheets, databases, e-mail and text files, and use of Internet browsers. | Prerequisites: None. | Course Attribute(s): General Education Designation: Computer/Statistics/Quantitative Applications - [CS] | Acad | LEC 4.0 4.0 4.0 | S |
| CSC181 | 2023 Fall | Applied Problem Solving with Visual BASIC | | Introduction to systematic definition of problems, solution formulation, and testing. Visual BASIC programming language applied to problems in mathematics, science, and business. | Prerequisites: None. | Course Attribute(s): General Education Designation: Computer/Statistics/Quantitative Applications - [CS | Acad | LEC 3.0 3.0 3.0 | S |
| CSC181AA | 2023 Fall | Applied Problem Solving with Visual BASIC | | Introduction to systematic definition of problems, solution formulation, and testing. Visual BASIC programming language applied to problems in mathematics, science, and business. | Prerequisites: None. | Course Attribute(s): General Education Designation: Computer/Statistics/Quantitative Applications - [CS] | Acad | L+L 3.0 4.0 4.0 | T |
| CSC181AB | 1999 Fall | Applied Problem Solving with Visual BASIC | | Introduction to systematic definition of problems, solution formulation, and testing. Visual BASIC programming language applied to problems in mathematics, science, and business | Prerequisites: None. | Course Attribute(s): General Education Designation: Computer/Statistics/Quantitative Applications - [CS] | Acad | LEC 4.0 4.0 4.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| CSC182 | 2007 Fall | Principles of Programming with C#.NET | | Introduction to object-oriented program analysis, design, and development using Visual C#.NET. Includes general concepts, data types, expressions, flow control, methods, classes, arrays, event-driven models, Windows applications, and Web applications | Prerequisites: None. | Course Attribute(s): General Education Designation: Computer/Statistics/Quantitative Applications - [CS] | Acad | LEC 3.0 3.0 3.0 | S |
| CSC182AA | 2018 Fall | Principles of Programming with C#.NET | | Introduction to object-oriented program analysis, design, and development using Visual C#.NET. Includes general concepts, data types, expressions, flow control, methods, classes, arrays, event-driven models, Windows applications, and Web applications | Prerequisites: None. | Course Attribute(s): General Education Designation: Computer/Statistics/Quantitative Applications - [CS] | Acad | L+L 3.0 4.0 4.0 | T |
| CSC185 | 2002 Spring | World Wide Web and Introductory Internet Programming | | Organization of and access to information on the Internet. Design, creation and publication of interactive web pages with HTML, multimedia, animated custom graphics, applets and JavaScript programming. Ethical issues, including security and privacy on the World Wide Web | Prerequisites: None. | | Acad | LEC 3.0 3.0 3.0 | S |
| CSC185AA | 2018 Fall | World Wide Web and Introductory Internet Programming | | Organization of and access to information on the Internet. Design, creation and publication of interactive web pages with HTML, multimedia, animated custom graphics, applets and JavaScript programming. Ethical issues, including security and privacy on the World Wide Web | Prerequisites: None. | | Acad | L+L 3.0 4.0 4.0 | T |
| CSC200 | 2018 Fall | Principles of Computer Science (Java) | | Introduction to computer science. Issues and concepts throughout the field, including software development, data organization, machine architecture, algorithmic | Prerequisites: A grade of C or better in CSC110 or (CSC100 or equivalent) and permission of Instructor. | Course Attribute(s): General Education Designation: Computer/Statistics/Quantitative Applications - [CS] | Acad | L+L 3.0 3.0 3.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | machines, and ethics in computing. Programming in Java. | | | | | |
| CSC200AA | 2018 Fall | Principles of Computer Science (Java) | | Introduction to computer science. Issues and concepts throughout the field, including software development, data organization, machine architecture, algorithmic machines, and ethics in computing. Programming in Java | Prerequisites: A grade of C or better CSC110 or (CSC100 or equivalent) and permission of instructor). | Course Attribute(s): General Education Designation: Computer/Statistics/Quantitative Applications - [CS] | Acad | L+L 3.0 4.0 4.0 | T |
| CSC200AB | 2018 Fall | Principles of Computer Science (Java) | | Introduction to computer science. Issues and concepts throughout the field, including software development, data organization, machine architecture, algorithmic machines, and ethics in computing. Programming in Java | Prerequisites: A grade of C or better in CSC110 or (CSC100 or equivalent) and permission of Instructor. | Course Attribute(s): General Education Designation: Computer/Statistics/Quantitative Applications - [CS] | Acad | L+L 4.0 4.0 4.0 | T |
| CSC205 | 2018 Fall | Object Oriented Programming and Data Structures | | Covers Object-Oriented design and programming; elementary data structures; arrays; lists; stacks; queues; binary trees; recursion; searching and sorting algorithms. | Prerequisites: A grade of C or better in CSC110 or permission of Instructor. | | Acad | L+L 3.0 3.0 3.0 | T |
| CSC205AA | 2018 Fall | Object Oriented Programming and Data Structures | | Covers Object-Oriented design and programming; elementary data structures; arrays; lists; stacks; queues; binary trees; recursion; searching and sorting algorithms. | Prerequisites: A grade of C or better in CSC110 or permission of Instructor. | | Acad | L+L 3.0 4.0 4.0 | T |
| CSC205AB | 2018 Fall | Object Oriented Programming and Data Structures | | Covers Object-Oriented design and programming; elementary data structures; arrays; lists; stacks; queues; binary trees; recursion; searching and sorting algorithms. | Prerequisites: A grade of C or better in CSC110 or permission of Instructor. | | Acad | L+L 4.0 4.0 4.0 | T |
| CSC205AC | 2018 Fall | Object Oriented Programming and Data Structures | | Covers Object-Oriented design and programming; elementary data structures; arrays; lists; stacks; queues; | Prerequisites: A grade of C or better in CSC110 or permission of Instructor. | | Acad | L+L 4.0 5.0 5.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | binary trees; recursion; searching and sorting algorithms. | | | | | |
| CSC205AD | 2018 Fall | Object Oriented Programming and Data Structures | | Covers Object-Oriented design and programming; elementary data structures; arrays; lists; stacks; queues; binary trees; recursion; searching and sorting algorithms. | Prerequisites: A grade of C or better in CSC110 or permission of Instructor. | | Acad | L+L 4.0 6.0 6.0 | T |
| CSC210 | 2018 Fall | Data Structures and Algorithms (Java) | | Static and dynamic data structures and associated applications; recursive and iterative sorting and searching algorithms; introduction to object oriented design and programming techniques; software engineering methods including design models and implementation/testing strategies; professional responsibilities; Java language. | Prerequisites: A grade of C or better in CSC200. | | Acad | L+L 3.0 3.0 3.0 | T |
| CSC210AA | 2018 Fall | Data Structures and Algorithms (Java) | | Static and dynamic data structures and associated applications; recursive and iterative sorting and searching algorithms; introduction to object oriented design and programming techniques; software engineering methods including design models and implementation/testing strategies; professional responsibilities; Java language | Prerequisites: A grade of C or better in CSC200. | | Acad | L+L 3.0 4.0 4.0 | T |
| CSC210AB | 2023 Fall | Data Structures and Algorithms (Java) | | Static and dynamic data structures and associated applications; recursive and iterative sorting and searching algorithms; introduction to object oriented design and programming techniques; software engineering methods including design models and implementation/testing | Prerequisites: A grade of C or better in CSC200. | | Acad | L+L 4.0 4.0 4.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | strategies; professional responsibilities; Java language. | | | | | |
| CSC220 | 2018 Fall | Programming for Computer Engineering | EEE220 | Introduction to procedural programming (C/C++) and hardware description language (VHDL). | Prerequisites: A grade of C or better in ((EEE120 or CSC120) and CSC205) or permission of Instructor. | | Acad | L+L 3.0 5.0 5.0 | T |
| CSC225 | 2018 Fall | Assembly Language Programming on Motorola Microprocessors | | Assembly language programming including input/output programming and exception/interrupt handling. Register-level computer organization, I/O interfaces, assemblers, and linkers. Macintosh-based assignments. | Prerequisites: A grade of C or better in (CSC100 or CSC110 or CSC200) and CSC/EEE120 or permission of Instructor. | | Acad | L+L 4.0 5.0 5.0 | T |
| CSC230 | 2018 Fall | Computer Organization and Assembly Language | EEE230 | Assembly language programming including input/output (I/O) programming and exception/interrupt handling. Register-level computer organization, I/O interfaces, assemblers, and linkers. Processor organization and design, data path, control, pipelining, and input/output. Memory organization with cache and virtual memory. | Prerequisites: A grade of C or better in [(CSC100 or CSC110) and CSC120 EEE120] or permission of Instructor. | | Acad | L+L 4.0 5.0 5.0 | T |
| CSC240 | 2018 Fall | Introduction to Different Programming Languages | | Introduction to procedural (C/C++), applicative (LISP), and declarative (Prolog) languages. | Prerequisites: A grade of C or better in CSC205 or permission of Instructor. | | Acad | L+L 3.0 5.0 5.0 | T |
| CSC240AA | 2012 Spring | Introduction to Different Programming Languages | | Introduction to procedural (C/C++), applicative (LISP), and declarative (Prolog) languages. | Prerequisites: A grade of C or better in CSC205 or permission of Instructor. | | Acad | LEC 4.0 4.0 4.0 | S |
| CSC250 | 2018 Fall | Advanced Programming Using C++ | | Developing Applications in C++; moving from C to C++ including objects and classes, inheritance, polymorphism and data abstraction | Prerequisites: A grade of C or better in CSC150 or permission of Instructor. | | Acad | L+L 3.0 5.0 5.0 | T |
| CSC250AA | 1998 Fall | Advanced Programming Using C++ | | Developing Applications in C++; moving from C to C++ including objects and classes, | Prerequisites: A grade of C or better in | | | LEC 4.0 4.0 4.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | inheritance, polymorphism and data abstraction | CSC150 or permission of Instructor. | | | | |
| CSC260 | 2018 Fall | Object-Oriented Programming in Java | | Software development in Java including both applets and applications, in both standard and graphical programming. Includes objects and classes, inheritance, polymorphism, graphical programming with the Abstract Windows Toolkit and the Swing extension, graphical user interface design and layout, event handling, and exception handling | Prerequisites: A grade of C or better in CSC150 or CSC200 or permission of Instructor. | | Acad | L+L 3.0 4.0 4.0 | T |
| CSC260AA | 2003 Spring | Object-Oriented Programming in Java | | Software development in Java including both applets and applications, in both standard and graphical programming. Includes objects and classes, inheritance, polymorphism, graphical programming with the Abstract Windows Toolkit and the Swing extension, graphical user interface design and layout, event handling, and exception handling | Prerequisites: A grade of C or better in CSC150 or CSC200 or permission of Instructor. | | Acad | LEC 4.0 4.0 4.0 | S |
| CSC261 | 2003 Spring | Advanced Programming in Java | | Advanced topics in Java including the JavaBean component model, multithreading, client/server development using Java sockets, the Java Database Connectivity interface (JDBC), and remote method invocation (RMI) | Prerequisites: A grade of C or better in CSC260 or permission of Instructor. | | Acad | LEC 3.0 4.0 3.7 | S |
| CSC261AA | 2023 Fall | Advanced Programming in Java | | Advanced topics in Java including the JavaBean component model, multithreading, client/server development using Java sockets, the Java Database Connectivity interface (JDBC), and remote method invocation (RMI). | Prerequisites: A grade of C or better in CSC260 or permission of Instructor. | | Acad | LEC 4.0 4.0 4.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| CSC270 | 2003 Fall | C# Programming | | Developing C# applications for the Microsoft .NET platform. Use of object-oriented principles in developing modularized C# programs | Prerequisites: A grade of C or better in CSC200 or CSC250 or CSC260 or permission of Instructor. | | Acad | LEC 3.0 3.0 3.0 | S |
| CSC270AA | 2018 Fall | C# Programming | | Developing C# applications for the Microsoft .NET platform. Use of object-oriented principles in developing modularized C# programs | Prerequisites: A grade of C or better in CSC200 or CSC250 or CSC260 or permission of Instructor. | | Acad | L+L 3.0 4.0 4.0 | T |
| CSC270AB | 2018 Fall | C# Programming | | Developing C# applications for the Microsoft .NET platform. Use of object-oriented principles in developing modularized C# programs | Prerequisites: A grade of C or better in CSC200 or CSC250 or CSC260 or permission of Instructor. | | Acad | L+L 4.0 4.0 4.0 | T |
| CSC281 | 2018 Fall | Advanced Programming in Visual Basic | | Graphical user interfaces are generated for advanced programming applications using Visual Basic. Event-driven programs, programming mouse interactions, interactive computer graphics, file processing, and how to distribute application programs | Prerequisites: A grade of C or better in CSC100 or CSC181 or equivalent programming knowledge or permission of Instructor. | | Acad | L+L 3.0 4.0 4.0 | T |
| CSC281AA | 1999 Fall | Advanced Programming in Visual Basic | | Graphical user interfaces are generated for advanced programming applications using Visual Basic. Event-driven programs, programming mouse interactions, interactive computer graphics, file processing, and how to distribute application programs | Prerequisites: A grade of C or better in CSC100 or CSC181 or equivalent programming knowledge or permission of Instructor. | | Acad | LEC 4.0 4.0 4.0 | S |
| CSC282AA | 2011 Spring | Volunteerism for Computer Science: A Service Learning Experience | | Service learning field experience within private/public agencies, educational institutions, and citizen volunteer groups. | Prerequisites: Permission of Instructor. | CSC282AA may be repeated for a total of six (6) credit hours. Standard grading available according to procedures outlined in catalog. | Acad | LAB 1.0 1.0 0.0 | Z |
| CSC282AB | 2011 Spring | Volunteerism for Computer Science: A Service Learning Experience | | Service learning field experience within private/public agencies, | Prerequisites: Permission of Instructor. | CSC282AB may be repeated for a total of six (6) credit hours. Standard grading available | Acad | LAB 2.0 2.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | educational institutions, and citizen volunteer groups. | | according to procedures outlined in catalog. | | | |
| CSC282AC | 2011 Spring | Volunteerism for Computer Science: A Service Learning Experience | | Service learning field experience within private/public agencies, educational institutions, and citizen volunteer groups. | Prerequisites: Permission of Instructor. | CSC282AC may be repeated for a total of six (6) credit hours. Standard grading available according to procedures outlined in catalog. | Acad | LAB 3.0 3.0 0.0 | Z |
| CSC283 | 2023 Fall | Bioinformatics and Scientific Computing | BIO283 | Introduction to bioinformatics, including history, concepts, major genetic databases and access tools. Computer software and techniques for analyzing one nucleotide or protein sequence, searching for similar sequences, and aligning and comparing two or multiple sequences. Microarray analysis and phylogenetic trees. Application of standard software to bioinformatic computing tasks, including word processing of reports, and use of spreadsheets for statistical analysis and graphing. Text editors, Unix, Internet web site searching and construction, and ethics. | Prerequisites: A grade of C or better in [(BIO156 or BIO181) and (MAT095, or MAT096, or MAT114, or MAT115, or MAT12+, OR an appropriate district placement for MAT15+ or higher)], or permission of Instructor or Department/Division Chair. Concurrent enrollment in, or previous completion of BIO208 is strongly suggested but not required. | Acad | | L+L 3.0 4.0 4.0 | T |
| CSC283AA | 2022 Fall | Bioinformatics and Scientific Computing | | Introduction to Bioinformatics, including history, concepts, major genetic databases and access tools. Computer software and techniques for analyzing one nucleotide or protein sequence, searching for similar sequences, and aligning and comparing two or multiple sequences. Microarray analysis and phylogenetic trees. Application of standard software to bioinformatic computing tasks, including word processing of reports, and use of spreadsheets for statistical analysis and graphing. Text | Prerequisites: A grade of C or better in [BIO220 and (MAT095 or MAT096 or MAT114 or MAT115 or MAT12+ or an appropriate District placement for MAT15+ or higher)] or permission of Instructor or Department/Division Chair. | Acad | | LEC 4.0 4.0 4.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | editors, Unix, Internet web site searching and construction, and ethics. | | | | | |
| CSC284 | 2003 Spring | Web Programming and Design with FLASH | | Design and publication of interactive web pages using Macromedia FLASH and Action Script. Animation, graphics design, timeline, layers, sound, movie clips, libraries, publishing with HTML, event driven programming, interactive programming of FLASH objects, form processing in FLASH, and programming constructs | Prerequisites: A grade of C or better in CSC185 or CIS233 or permission of Instructor. | | Acad | LEC 3.0 3.0 3.0 | S |
| CSC284AA | 2003 Spring | Web Programming and Design with FLASH | | Design and publication of interactive web pages using Macromedia FLASH and Action Script. Animation, graphics design, timeline, layers, sound, movie clips, libraries, publishing with HTML, event driven programming, interactive programming of FLASH objects, form processing in FLASH, and programming constructs | Prerequisites: A grade of C or better in CSC185 or CIS233 or permission of Instructor. | | Acad | LEC 3.0 4.0 3.7 | S |
| CSC285 | 1998 Fall | Computer Programming in the WWW Environment | | Software development paradigms and environments including Advanced HTML, JavaScript, Common Gateway Interface (CGI) and CGI scripting languages. Security and large scale data management | Prerequisites: A grade of C or better in CSC185 and prior programming experience/coursework. | | Acad | LEC 4.0 4.0 4.0 | S |
| CSC285AA | 2023 Fall | Computer Programming in the WWW Environment | | Software development paradigms and environments including Advanced HTML, JavaScript, Common Gateway Interface (CGI) and CGI scripting languages. Security and large scale data management. | Prerequisites: A grade of C or better in CSC185 and prior programming experience/coursework. | | Acad | LEC 3.0 4.0 3.7 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| CSC294 | 1999 Spring | Special Topics in Computing | | Investigation of special topics in computing technology and applications. Examination of industry trends to solve problems and/or investigate issues | Prerequisites: Permission of Instructor. | | Acad | LEC 3.0 3.0 3.0 | S |
| CSC294AA | 2018 Fall | Special Topics in Computing | | Investigation of special topics in computing technology and applications. Examination of industry trends to solve problems and/or investigate issues | Prerequisites: Permission of Instructor. | | Acad | L+L 3.0 4.0 4.0 | T |
| CSC294AB | 2003 Fall | Special Topics in Computing | | Investigation of special topics in computing technology and applications. Examination of industry trends to solve problems and/or investigate issues | Prerequisites: Permission of Instructor. | | Acad | LEC 2.0 2.0 2.0 | S |
| CSC294AC | 2018 Fall | Special Topics in Computing | | Investigation of special topics in computing technology and applications. Examination of industry trends to solve problems and/or investigate issues | Prerequisites: Permission of Instructor. | | Acad | L+L 2.0 3.0 3.0 | T |
| CSC294AD | 2003 Fall | Special Topics in Computing | | Investigation of special topics in computing technology and applications. Examination of industry trends to solve problems and/or investigate issues | Prerequisites: Permission of Instructor. | | Acad | LEC 1.0 1.0 1.0 | S |
| CSC294AE | 2018 Fall | Special Topics in Computing | | Investigation of special topics in computing technology and applications. Examination of industry trends to solve problems and/or investigate issues | Prerequisites: Permission of Instructor. | | Acad | L+L 1.0 2.0 2.0 | T |
| CSC296WA | 2023 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) | | Acad | LAB 1.0 5.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor. | | | | |
| CSC296WB | 2023 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor. | | Acad | LAB 2.0 10.0 0.0 | Z |
| CSC296WC | 2023 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor. | | Acad | LAB 3.0 15.0 0.0 | Z |
| CSC296WD | 2023 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of | Prerequisites: Completion of at least | | | LAB 4.0 20.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | educators and employers to accomplish an outcome related to the career objectives of the students. | twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor. | | | | |
| CSC298AA | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | Prerequisites: Permission of Program Director or Instructor. | Acad | | LAB 1.0 1.0 0.0 | Z |
| CSC298AB | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student | Prerequisites: Permission of Program Director or Instructor. | Acad | | LAB 2.0 2.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | development. COMMON COMPETENCY COURSE | | | | | |
| CSC298AC | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | Prerequisites: Permission of Program Director or Instructor. | | Acad | LAB 3.0 3.0 0.0 | Z |
| CSI105 | 2021 Spring | Debt Resolution Enrollment | | Overview of debt resolution enrollment procedures. Covers characteristics of debt settlement, including regulatory entities, information security, and client hardships. Also includes procedures for completing quality enrollment calls, as well as a review of resources available to clients. | Prerequisites: None. | | Occ | L+L 3.0 5.0 5.0 | T |
| CSI154 | 2019 Summer | Introduction to Debt Settlement | | Introduction to the debt settlement industry. Covers customer service representative role in debt settlement including types of hardships, debt solutions, account resources, and legal services available to clients. Also includes Fair Debt Collection Practices Act regulations. | Prerequisites: None. | | Occ | LEC 2.0 2.0 2.0 | S |
| CSI155 | 2020 Summer | Customer Service for Debt Settlement | | Basic customer service principles for debt settlement. Evaluation of various program services as well as types of client debt. Emphasis on elements of customer service | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | debt settlement transactions and effective communication. | | | | | |
| CSI161 | 2023 Spring | Financial Services Retirement Plans | | Introduction to financial service retirement accounts. Includes applicable vocabulary, Internal Revenue Service (IRS) codes, qualified and supplemental plans as well as loan options. Also covers deferred compensation and money sources. | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| CSI163 | 2023 Spring | Employer Sponsored Retirement Plans | | Characteristics, restrictions, and guidelines for various employer sponsored retirement plans. Includes lifecycles and processes. | Prerequisites: None. | | Occ | LEC 1.0 1.0 1.0 | S |
| CSI164 | 2019 Summer | Debt Resolution Account Procedures | | Procedures for maintaining debt settlement customer accounts. Emphasis on screens and processes used to maintain accounts, provide education resources to customers, and respond to customer inquiries. | Prerequisites: None. | | Occ | L+L 3.0 4.0 4.0 | T |
| CSI165 | 2023 Spring | Introduction to Financial Customer Service | | Introduction to customer service procedures for managing member accounts. Covers computerized systems including online documentation and database usage. Procedures for account maintenance included as well as procedures for handling initial member requests. Emphasis on professional communication and customer service skills. | Prerequisites: None. | | Occ | L+L 3.0 4.0 4.0 | T |
| CSI166 | 2019 Summer | Debt Settlement Services | | Practical application of customer service representative debt settlement skills. Includes various types of customers, calls, and interactions in addition to procedures for navigating client accounts. Also covers account modifications, legal | Prerequisites: None. | | Occ | LAB 2.0 6.0 6.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | services, and negotiations procedures. | | | | | |
| CSI167 | 2023 Spring | Financial Systems Customer Service | | Practical application of financial account procedures for customer services representatives. Includes procedures for initiating and completing distributions, loan, service credits purchase, and Qualified Domestic Relationship Orders (QDRO) in addition to processing death claims. | Prerequisites: None. | | Occ | L+L 3.0 4.0 4.0 | T |
| CSI168 | 2020 Summer | Introduction to Debt Resolution Sales | | Introduction to debt resolution sales and the debt settlement industry. Covers characteristics, solutions, components, and regulators of debt settlement including the Fair Debt Collection Practices Act. Also includes types of hardships and financial distress, credit reports, and resources available to clients, in addition to an introduction to the sales process. | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| CSI174 | 2020 Summer | Debt Resolution Sales Procedures | | Practical application of debt resolution sales procedures. Covers consultative sales tools and services used in the provision of direct debt management sales. Includes approval calls, enrollment agreements, underwriting and file submission procedures as well as tax consequences and managing client objections. | Prerequisites: None. | | Occ | L+L 2.0 4.0 4.0 | T |
| CSI180 | 2020 Summer | Debt Resolution Sales Practices | | Further application of debt resolution sales procedures. Covers consultative sales tools and services used in the provision of direct debt management sales. Includes approval and welcome calls, enrollment agreements, underwriting and file | Prerequisites: A grade of C or better in CSI174. | | Occ | L+L 2.0 4.0 4.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | submission procedures as well as disclosures and tax consequences. | | | | | |
| CSI182 | 2020 Summer | Introduction to Loan Consolidation | | Introduction to loan consolidation in the debt settlement industry. Covers consolidation loan terminology, details, cycles, and benefits as well as disclosures and effective business communication for the loan consultant. | Prerequisites: None. | | Occ | LEC 2.0 2.0 2.0 | S |
| CSI184 | 2020 Summer | Loan Consolidation Procedures | | Practical application of loan consolidation procedures. Covers benefits of and processes for loan consolidation as well as consultative sales tools and services used in the provision of direct debt management sales. Includes initial calls, enrollment agreements, and customer education procedures as well as effective communication strategies. | Prerequisites: None. | | Occ | L+L 3.0 4.0 4.0 | T |
| CSI202 | 2020 Summer | Debt Settlement Loan Servicing | | Consolidation loan servicing procedures. Covers types of loans, features, and guidelines as well as enrollment structure and loan calculations. Also covers payments, customer protections, and procedures for account collections. | Prerequisites: None. | | Occ | L+L 4.0 6.0 6.0 | T |
| CSI206 | 2022 Summer | Banking Member Service Representative | | Introduction to banking member service representative roles and responsibilities. Includes communication and problem solving skills when dealing with members. Also covers various types of banking products and services available to members as well as an introduction to computerized banking and | Prerequisites: None. Corequisites: CSI207, CSI208 and CSI209. | | Occ | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | online documentation systems. | | | | | |
| CSI207 | 2022 Summer | Banking Accounts and Products | | Knowledge of bank accounts, products, and procedures for banking member service representatives. Covers new accounts, credit cards, debit cards, certificates of deposit and individual retirement accounts. Self-service banking benefits and procedures as well as cash advances and funds transfers included. | Prerequisites: None. Corequisites: CSI206, CSI208 and CSI209. | | Occ | LEC 3.0 3.0 3.0 | S |
| CSI208 | 2022 Summer | Banking Account Management | | Account management procedures for banking member service representatives. Banking terminology and maintenance procedures including member verification and privacy policies. Includes fraud handling and common banking inquiries by members such as updating account information, stopping payments, reordering checks, and requesting refunds. Retention of banking members also covered. | Prerequisites: None. Corequisites: CSI206, CSI207 and CSI209. | | Occ | LEC 3.0 3.0 3.0 | S |
| CSI209 | 2022 Summer | Banking Account Management Lab | | Practical application of banking member services and procedures. Covers computerized banking systems including online documentation and database usage. Procedures for new accounts and account maintenance included as well as procedures for handling various member requests. Communication and customer service skills emphasized. | Prerequisites: None. Corequisites: CSI206, CSI207 and CSI208. | | Occ | LAB 1.0 2.0 2.0 | T |
| CSI250 | 2018 Fall | Customer Service for Credit Counselors | | Basic customer service principles for the credit counselor. Examination of credit-counseling programs | Prerequisites: None. | | Occ | L+L 3.0 4.0 4.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | covered. Emphasis on elements of customer service transactions | | | | | |
| CSI251 | 2018 Summer | Legal Issues In Credit Counseling | | Overview of laws and practices in granting credit. Types of credit and calculating finance charges included. Emphasis on implications of inadequate payment history on credit ratings. | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| CSI252 | 2019 Fall | Credit Counseling New Accounts | | Overview of establishing new client accounts in a credit-counseling program. Emphasis on screens used to setup an account. | Prerequisites: None. | | Occ | L+L 3.0 4.0 4.0 | T |
| CSI255 | 2018 Fall | Account Maintenance Procedures | | Account maintenance procedures for customer service representatives. Emphasis on managing ongoing client accounts. Covers contact with creditors and clients | Prerequisites: None. | | Occ | L+L 3.0 4.0 4.0 | T |
| CSI257 | 2018 Fall | Credit Counseling Account Processes | | Overview of maintaining a client account in a credit counseling program. Emphasis on screens used to maintain an account. | Prerequisites: None. | | Occ | L+L 3.0 4.0 4.0 | T |
| CSI258 | 2018 Summer | Credit Counseling and Financial Management | | Overview of financial topics relevant to clients and their accounts. Covers creditor information and policies as well as procedures for account review. Also includes identification of and education regarding client financial issues in addition to client resource identification and use. | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| CSM101 | 2006 Fall | Quality Customer Service | TQM101 | Examines the nature of quality customer service and the attitudes, knowledge, and skill needed to work effectively in a quality customer service environment. Foundation skills for quality customer services | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | are taught, applied, and practiced | | | | | |
| CSN102DA | 2020 Fall 1 | Customer User Support | | Examines skills, tools and strategies necessary for becoming a computer help-desk or end-user support professional. | Prerequisites: None. | | CLK | 110 | |
| CSN110 | 2020 Fall 1 | Information Security Fundamentals | | Fundamental concepts of information technology security. Topics include authentication methods, access control, cryptography, public key infrastructure (PKI), network attack and defense methods, hardening of operating systems and network devices, securing remote access and wireless technologies and securing infrastructures and topologies. Emphasis on hands-on labs in both the Windows and Linux environments. Builds on thorough understanding of transmission control protocol/internet protocol (TCP/IP) and security concepts and Microsoft (MS) Windows and Linux administration. | Prerequisites: A grade of C or better in CSN126DL or CSN126RH or permission of Program Director. Corequisites: CSN150++ or CSN270. | CLK | | 122 | |
| CSN126DL | 2020 Fall 1 | Linux Operating System | | Introduction to the Linux operating system. Develop knowledge and skills required to install, configure and troubleshoot a Linux-based workstation including basic network functions. Learn basic command line and graphical user interface (GUI) desktop environment utilities and applications. Fundamental abilities to achieve the entry-level industry certification covered. | Prerequisites: None. | | CLK | 110 | |
| CSN140AB | 2020 Fall 1 | Introduction to Networks | | Focus on the architecture, structure, functions, | Prerequisites: None. | | CLK | 122 | |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | components, and models of the internet and other computer networks. Principles and structure of IP addressing and the fundamentals of Ethernet concepts, media, and operations are introduced. Students will build simple LANs, perform basic configurations for routers and switches, and implement IP addressing schemes. Preparation for Cisco certification examination. | | | | | |
| CSN150AB | 2020 Fall 1 | Switching, Routing, and Wireless Essentials | | Focus is on configuring switches and routers for use in small and medium-sized networks. Includes virtual local area networks (VLANs), VLAN trunking, inter-VLAN routing, spanning tree protocol (STP), EtherChannel, dynamic host configuration protocol (DHCP), first hop redundancy, local area network (LAN) and switch security, and static routing. Knowledge and skills needed to implement a wireless local area network (WLAN) is also covered. Preparation for Cisco certification examination. | Prerequisites: None. | | CLK | 122 | |
| CSN160AB | 2020 Fall 1 | Enterprise Networking, Security, and Automation | | Focus is on the configuration of routers and switches within small and medium size networks for advanced functionality including: open shortest path first (OSPF), network security, access control lists (ACLs), network address translation (NAT), wide area network (WAN) concepts, virtual private networks (VPNs), quality of service (QOS), network management, design, | Prerequisites: None. | | CLK | 122 | |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | troubleshooting, virtualization, and automation. Preparation for Cisco certification examination. | | | | | |
| CSN170 | 2020 Fall 1 | A+ Exam Prep: Computer Hardware Configuration and Support | | Explore technical aspects of personal computers, including system components, installation, system configuration, peripheral devices, and notebooks. Emphasis placed on hardware installation, maintenance, mobile devices, and hardware troubleshooting. Helps prepare students for the CompTIA A+ examinations. | Prerequisites: None. | | CLK | 122 | |
| CSN270 | 2020 Fall 1 | A+ Exam Prep: Operating System Configuration and Support | | Explore advanced technical aspects of maintaining and servicing computers. Emphasis placed on operating system (OS) installation, maintenance, mobile devices, security, software troubleshooting, and on proper usage of tools, safety procedures, and professionalism. Helps prepare students for the CompTIA A+ examinations. | Prerequisites: None. | | CLK | 122 | |
| CSR108 | 2018 Fall | Motor Vehicle Documentation Concerns | | Vehicle titling considerations with emphasis on documentation procedures. Includes Department of Revenue policy and procedures and examination of title documents. Also covers trailer and damaged vehicle documentation as well as procedures for completing special vehicle titling | Prerequisites: None. | | Occ | L+L 2.0 3.0 3.0 | T |
| CSR109 | 2018 Fall | Motor Vehicle Documentation Procedures | | State motor vehicle documentation procedure. Use of computer based government workstation emphasized. Includes procedures for location and | Prerequisites: None. | | Occ | L+L 2.0 3.0 3.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | modification of customer and vehicle records | | | | | |
| CSR118 | 2020 Spring | Property Insurance Financial Security Customer Service | | Financial security needs determinations procedures for the customer service representative. Referrals, value factors, and solutions applicable to providing opportunities for member financial security. Also includes company lines of business. | Prerequisites: None. | | Occ | L+L 1.0 2.0 2.0 | T |
| CSR119 | 2020 Spring | Introduction to Homeowner Insurance Customer Service | | Introduction to homeowner insurance components and coverage types for the customer service representative. Covers the home buying process as well as industry specific vocabulary and contracts. | Prerequisites: None. | | Occ | LEC 2.0 2.0 2.0 | S |
| CSR120 | 2020 Spring | Homeowner Policy Issuance Customer Service | | Examination of homeowner insurance components and policies for customer representative issuance procedures. Covers dwelling types and characteristics as well as various systems and procedures for policy issuance. Also includes an introduction to old age homes procedures. | Prerequisites: None. | | Occ | L+L 2.0 3.0 3.0 | T |
| CSR121 | 2020 Spring | Homeowner Policy Servicing Customer Service | | Homeowner policy servicing components for the customer service representative. Covers systems and procedures for completing policy modifications, cancellations, and declines. Also includes Earned Premium Location (EPL) and Probable Maximum Loss (PML) guidelines. | Prerequisites: None. | | Occ | L+L 2.0 3.0 3.0 | T |
| CSR122 | 2020 Spring | Introduction to Unit Owner Policy Customer Service | | Unit owner policy components and procedures for the customer service representative. Covers various systems and procedures for | Prerequisites: None. | | Occ | L+L 2.0 3.0 3.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | issuance, modification, cancellation, and rewrite of policies. Also includes strategies for needs, determinations, and procedures for responding to member coverage inquiries. | | | | | |
| CSR123 | 2020 Spring | Introduction to Rental Property Insurance Customer Service | | Introduction to rental property insurance components and policies for the customer service representative. Covers various systems and procedures for issuance, modification, and cancellation of policies as well as declined accounts. | Prerequisites: None. | | Occ | L+L 2.0 3.0 3.0 | T |
| CSR124 | 2020 Spring | Renters Valuable Personal Property Customer Service I | | Introduction to renters valuable personal property insurance procedures for the customer service representative. Covers types of policies, coverages, and limits as well as issuance and billing procedures. Also includes member policy update procedures. | Prerequisites: None. | | Occ | L+L 2.0 3.0 3.0 | T |
| CSR125 | 2020 Spring | Renters Valuable Personal Property Customer Service II | | Additional renters valuable personal property insurance procedures. Includes characteristics of valuable personal property coverage and limits as well as guidelines and procedures for dealing with collections. Also covers policy modifications, declines, and cancellations. | Prerequisites: A grade of C or better in CSR124. | | Occ | L+L 2.0 3.0 3.0 | T |
| CSR126 | 2020 Summer | Automobile Insurance Customer Service Procedures | | Automobile insurance industry customer service procedures. Covers roles and responsibility of a call center customer service consultant, including customer care expectations, call flow guidelines, insurance policy lifespan, and bill processing. | Prerequisites: None. | | Occ | LEC 2.0 2.0 2.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Also covered workstation operation principles. | | | | | |
| CSR130 | 2022 Spring | Advocate-Driven Healthcare | | Procedures for advocate-driven healthcare customer service representatives. Covers eligibility requirements, enrollment procedures, and Health Insurance Portability and Accountability Act of 1996 (HIPAA) compliance standards. Also includes healthcare services, products, and plans. | Prerequisites: None. | | Occ | LEC 2.0 2.0 2.0 | S |
| CSR136 | 2018 Fall | Health Care Insurance: Claims I | | Overview of health insurance, medical terminology, and various operating systems and applications. Also includes research of medical, outpatient, and inpatient claims. | Prerequisites: None. | | Occ | L+L 4.0 6.0 6.0 | T |
| CSR139 | 2019 Spring | Introduction to Retail Pharmacy Customer Care | | Introduction to the retail pharmacy program. Includes customer care responsibilities, confidentiality, and eligibility status in addition to various types of member inquiries. Also covers quality assurance and Federal and State laws governing controlled substances. | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| CSR144 | 2021 Spring | Prior Authorization Programs and Systems | | Prior authorization programs and systems for federal employees. Covers Med-Ex, 'Buy and Bill' and Medical Formulary Exception (MFE) programs as well as identification and processes for compounds. Also covers the Clinical Authorization System (CAS) program organization and use, including clinical rationales, outcomes, inquiries, and non-covered Qsets. | Prerequisites: None. | | Occ | LEC 2.0 2.0 2.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| CSR145 | 2021 Spring | Prescription Prior Authorization I | | Prescription prior authorization procedures for federal employees. Covers account access, documentation, and eligibility as well as claims process and claims adjudication. Computerized databases and automated phone systems emphasized. | Prerequisites: None. | | Occ | L+L 3.0 4.0 4.0 | T |
| CSR146 | 2021 Spring | Prescription Prior Authorization II | | Advanced prescription prior authorization procedures for federal employees. Usage of various computerized databases emphasized. Includes drug benefit management, drug limitation guidelines, standard allowance fill quantity, and prior authorization fill quantity. Approved and denied authorizations also covered in addition to grandfathered records and change in therapy procedures. | Prerequisites: A grade of C or better in CSR145. | | Occ | L+L 3.0 4.0 4.0 | T |
| CSR148 | 2018 Fall | Health Care Insurance: Customer Service | | Overview of customer service standards and objectives for health care insurance phone inquiries. Covers customer service solution processes, including first call resolution, account inquires, member eligibility and benefits. Health care regulations also covered. | Prerequisites: None. | | Occ | L+L 4.0 6.0 6.0 | T |
| CSR155 | 2017 Fall | Retail Pharmacy Plans | | Retail pharmacy benefit plan design. Includes types of plans, limitations, and drug coverage in addition to fulfillment requests. Also covers procedures for accessing accounts, responding to caller inquires, completing test claims, and steps for locating formulary alternatives. | Prerequisites: A grade of C or better in CSR139. | | Occ | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| CSR156 | 2018 Fall | Retail Pharmacy Procedures | | Practical application of retail pharmacy customer care procedures. Includes procedures for accessing accounts, responding to eligibility issues, and completing customer requests. Also covers billing and payment procedures as well as the provision of non-technical web support. | Prerequisites: A grade of C or better in CSR139. | | Occ | L+L 2.0 4.0 4.0 | T |
| CSR157 | 2018 Fall | Mail Order Pharmacy Procedures | | Practical application of mail order pharmacy customer care procedures. Includes procedures for managing billing and payment inquiries as well as order status processes and prior authorizations. | Prerequisites: A grade of C or better in CSR155. | | Occ | L+L 2.0 3.0 3.0 | T |
| CSR160 | 1999 Spring | Pharmacy Practice for the Customer Service Representative | | Orientation to customer service responsibilities in pharmacy practice. Includes educational and licensure requirements as well as basic functions of the pharmacy and the customer service representative | Prerequisites: Permission of Department or Division. | | | LEC 1.0 1.0 1.0 | S |
| CSR162 | 1999 Spring | Pharmacy Operations for the Customer Service Representative | | Customer service responsibilities in pharmacy operations. Includes procedures for prescription dispensing and drug distribution in the retail setting. Inventory control, packaging and storage, in addition to computer usage and third party operations | Prerequisites: A grade of C or better in CSR160. | Occ | Occ | LEC 3.0 3.0 3.0 | S |
| CSR163 | 2019 Summer | Telecommunications Industry Collections Customer Service | | Introductory collections customer service strategies. Covers essential behaviors for effective customer support and professional interaction, in addition to knowledge of company products, services, roles and functions. | Prerequisites: None. | | Occ | LEC 1.0 1.0 1.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| CSR164 | 2019 Summer | Telecommunications Industry Receivables Management | | Receivables management procedures for customer services representatives in the telecommunications industry. Covers tools and systems for managing billing account modifications, prorations, and credit adjustments in addition to handling fraud claims. Also includes payment processing, options and restrictions, as well as distributions and various declined payments. | Prerequisites: None. | | Occ | LEC 2.0 2.0 2.0 | S |
| CSR165 | 2019 Summer | Collections Customer Service | | Practical application of telecommunications collections customer service procedures. Covers access to and navigation of tools and systems for completion of billing, payment and collections services. | Prerequisites: None. | | Occ | L+L 2.0 4.0 4.0 | T |
| CSR166 | 2019 Summer | Telecommunications Industry Collections | | Telecommunications industry collection procedures and strategies. Includes policies and procedures for collections, including the Fair Debt Collections Practice Act (FDCPA) and federal laws and regulations for compliance. Also covers collections schemes and payments options, as well as call escalation and miscellaneous billing procedures. | Prerequisites: None. | | Occ | L+L 2.0 3.0 3.0 | T |
| CSR171 | 2022 Spring | Customer Representative Web Design Products and Services | | Introduction to web design products and services. Includes customer services for web design, branding, and hosting as well as various products available to business owners. Also covers domain ownership and security. | Prerequisites: None. | | Occ | LEC 2.0 2.0 2.0 | S |
| CSR172 | 2022 Spring | Customer Representative Web Service Sales | | Customer service account procedures for web service sales. Covers business specific services and | Prerequisites: None. | | Occ | LEC 2.0 2.0 2.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | products, and application to meeting customer needs. Also covers hosting and website design sales procedures as well as customer consultation techniques. | | | | | |
| CSR173 | 2022 Spring | Customer Service for Web Hosting | | Introduction to web hosting products and customer services. Includes features and benefits of branding, productivity, presence, and marketing. | Prerequisites: None. | | Occ | LEC 2.0 2.0 2.0 | S |
| CSR174 | 2022 Spring | Hosting Product Support Customer Service | | Hosting product support customer service procedures. Covers databases, email solutions, and Content Management Systems (CMS) as well as business hosting. Also covers troubleshooting procedures including site latency. | Prerequisites: None. | | Occ | LEC 2.0 2.0 2.0 | S |
| CSR175 | 2022 Spring | Web Hosting Account Customer Service | | Account customer service for web hosting and domains. Includes new accounts, branding, and presence strategies and products, and their application to meeting customer needs. Also covers hosting and website design procedures as well as completion of a marketing consultation. | Prerequisites: None. | | Occ | LEC 1.0 1.0 1.0 | S |
| CSR176 | 2021 Summer | Customer Product Service Management for Web Hosting/Domain Registrar | | Introduction to web hosting and domain registrar products and customer services. Includes features and benefits of branding, productivity, presence, and marketing. | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| CSR177 | 2018 Fall | Customer Representative for Web Hosting/Domain Registrar Services | | Customer service account procedures for web hosting and domain registrar product application. Includes new accounts, branding, and presence strategies and products, and their application to meeting customer needs. | Prerequisites: None. | | Occ | L+L 2.0 4.0 4.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Also covers hosting and website design procedures as well as completion of a marketing consultation. | | | | | |
| CSR178 | 2018 Fall | Customer Service Consultations and Troubleshooting Lab | | Practical application of strategies and procedures for conducting customer consultations and troubleshooting. | Prerequisites: None. | | Occ | LAB 1.0 2.0 2.0 | T |
| CSR184 | 2022 Fall | Business Technology in Customer Service | | Foundational business technology for enhancing customer service. Includes the integration of technology into an effective workforce management solution. Covers Enterprise Resource Planning (ERP) in addition to Customer Relationship Management (CRM) and Business Intelligence (BI). | Prerequisites: None. | | Occ | LEC 2.0 2.0 2.0 | S |
| CSR185 | 2021 Fall | Insurance Industry Direct Sales Concepts | | Overview of customer service direct sales concepts for the insurance industry. Covers building relationships with customers in addition to systems used and strategies for effective communication and sales techniques. Also includes product knowledge, coverages, and procedures for closing the sale. | Prerequisites: None. Corequisites: CSR186. | | Occ | LEC 3.0 3.0 3.0 | S |
| CSR186 | 2021 Fall | Insurance Industry Direct Sales Procedures | | Practical application of direct sales basics. Covers product knowledge, sales procedures, and systems in addition to effective communication techniques. | Prerequisites: None. Corequisites: CSR185. | | Occ | L+L 2.0 4.0 4.0 | T |
| CSR195 | 2018 Fall | Customer Service Representative Sales and Marketing | | Introduction to sales and marketing strategies for the customer service representative. Includes the sales and negotiation processes as well as behavioral styles and demographics of customers. Also covers types of markets, | Prerequisites: None. | | Occ | L+L 2.0 4.0 4.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | organizational structure, and elements of a marketing plan. | | | | | |
| CSR196 | 2020 Summer | Call Center Customer Service | | Introduction to practical application for call center representatives. Covers the role of call center representatives and skills and behaviors necessary for successful and effective call flow and completion of inbound calls. Also includes procedures for customer authentication, billing, payments, and claims loss reports as well as de-escalation. | Prerequisites: Permission of Department or Division. | Occ | | L+L 3.0 5.0 5.0 | T |
| CSR197 | 2018 Fall | Customer Service Representative Business Practices | | Introduction to business practices for the customer service representative. Includes organization types and structures as well as essential business communication techniques and foundational skills. Also covers professional telephone techniques. | Prerequisites: None. | | Occ | L+L 2.0 3.0 3.0 | T |
| CSR200 | 2009 Summer I | Automobile Representative Customer Services | | Automobile representative customer service responsibilities. Includes overview of insurance industry terminology and contracts as well as need determination. Also covers privacy and security issues in addition to relationship management strategies. | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| CSR201 | 2022 Spring | Web-Based Hosting Customer Service | | Web-based hosting customer service. Includes resources, tools, and services for setup, maintenance, and troubleshooting. | Prerequisites: None. | | Occ | LEC 1.0 1.0 1.0 | S |
| CSR202 | 2021 Fall | Automobile Insurance Policy Customer Service | | Front-line customer service procedures for automobile insurance policies. Emphasis upon information associated with completing automobile | Prerequisites: None. | | Occ | L+L 3.0 5.0 5.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | insurance policy changes. Covers policy issue and policy status change operations, endorsements, policy cancellation, and vehicle ownership concerns. Includes title lien holder issues and model call flow identification and demonstration. | | | | | |
| CSR203 | 2022 Spring | Productivity Customer Service | | Web-based productivity customer service. Includes tools and resources for managing productivity as well as troubleshooting procedures. | Prerequisites: None. | | Occ | LEC 1.0 1.0 1.0 | S |
| CSR204 | 2021 Fall | Auto Insurance Quotes and Underwriting | | Automobile insurance member services representative operating procedures. Procedures for providing auto insurance quotes and completing payments. Covers tools for underwriting, including risk factors and rate determination. Also includes account research techniques and fundamental need-based sales principles. | Prerequisites: None. | | Occ | L+L 3.0 5.0 5.0 | T |
| CSR206 | 2021 Fall | Special Lines Customer Service Procedures | | Introduction to special lines customer service procedures. Covers types of coverage, discounts, and eligibility for motorcycle, recreational vehicles, and watercraft. Includes procedures for quoting and use of state-specific guidelines and procedures. | Prerequisites: Permission of Department or Division. | | | L+L 2.0 3.0 3.0 | T |
| CSR207 | 2018 Fall | Automobile Policy Adjustment | | Emphasis upon policy explanation and adjustment. Covers membership flow-thru criteria, quality customer service information, and in-depth on-line resource instrument review. Also includes consultative selling practice and the observation | Prerequisites: None. | Occ | Occ | L+L 3.0 4.0 4.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | of acting member service representatives. | | | | | |
| CSR208 | 2021 Fall | House and Home Customer Service | | Introduction to house and home coverage. Includes homeowner products and procedures for completing customer inquiries and cross-selling. Also covers an introduction to renter insurance. | Prerequisites: None. | | Occ | L+L 1.0 2.0 2.0 | T |
| CSR209 | 2021 Fall | State Specific Customer Service | | Introduction to state specific variations in coverage and service. Covers product knowledge, guidelines and processes for specific states in both auto and property lines. | Prerequisites: None. | | Occ | L+L 1.0 2.0 2.0 | T |
| CSR211 | 2020 Summer | Auto Insurance Quotes | | Procedures for providing auto insurance quotes and completing various payments. Covers tools for investigating rate changes as well as procedures for modifying account vehicles and driver information. Also includes account research techniques and reinstatement procedures. | Prerequisites: None. | | Occ | L+L 3.0 5.0 5.0 | T |
| CSR212 | 2009 Summer I | Automobile Insurance Operations I | | Automobile insurance member services representative operating procedures. Emphasis upon explanation of payment and rate information, the provision of written correspondence, and file information completion. Covers representative underwriting observation, fundamental need based sales principles, and phone system usage. | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| CSR213 | 2009 Summer I | Automobile Insurance Operations II | | Auto insurance account operations. Includes the format and use of vehicle identification numbers (VIN) and the impact of regulation in the insurance industry. Also | Prerequisites: A grade of C or better in CSR212. | | Occ | LEC 2.0 2.0 2.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | covers policy procedures including liability, exclusions, and credits. Review of the billing process and statements also covered. | | | | | |
| CSR214 | 2018 Fall | Automobile Insurance Operations Lab | | Practical application of auto insurance member services operational procedures. Includes use of the direct sales system to complete account navigation in addition to modification and billing procedures. Emphasis on effective communication skills, information gathering, and sales techniques. | Prerequisites: A grade of C or better in CSR213. | | Occ | LAB 1.0 2.0 2.0 | T |
| CSR215 | 2018 Fall | Digital Telephone Customer Service | | Digital telephone customer service provisions. Emphasis on the establishment and alteration of digital phone service. Covers phone number assignation, ancillary service provision, and public directory phone number listing information | Prerequisites: None. | | Occ | L+L 1.0 2.0 2.0 | T |
| CSR219 | 2018 Fall | Disconnects and Transfers | | Procedures for completing disconnects and transfers of service using the Integrated Communications Operations Management System. Includes restrictions, documentation, and scheduling issues | Prerequisites: None. | | Occ | L+L 1.0 2.0 2.0 | T |
| CSR220 | 2018 Fall | Sales and Retention | | Practical application for call center representatives. Covers skills and behaviors necessary for successful and effective completion of inbound sales and retention calls. | Prerequisites: Permission of Department or Division. | | | LAB 2.0 6.0 6.0 | T |
| CSR224 | 2018 Fall | Communications Industry Billing Practices | | Provision of billing services to digital telecommunications industry customers. Covers database billing issues, billing policy concerns, payment | Prerequisites: None. | | Occ | L+L 1.0 2.0 2.0 | T |



Occ

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | acceptance, and adjustments processing. | | | | | |
| CSR225 | 2018 Summer | Digital Telecommunications Customer Service | | Principles for the provision of digital telecommunications industry customer service. Emphasis upon the initiation of services to customers. Covers deposit collection, credit check performance, and Internet connection procedures. Includes digital television upgrade and pay-per-view provision information. | Prerequisites: None. | | Occ | LEC 2.0 2.0 2.0 | S |
| CSR226 | 2018 Fall | Digital Telecommunications Customer Interaction | | Digital telecommunications industry customer service communication techniques. Emphasis on active listening and questioning strategies in the identification of digital telecommunications customer needs. Covers negotiation and customer valuation techniques | Prerequisites: None. | | Occ | L+L 1.0 2.0 2.0 | T |
| CSR228 | 2018 Fall | Telecommunications Database Navigation | | Telecommunications database navigation procedures. Emphasis on the documentation of customer service activities in a telecommunications database. Covers code and notation interpretation, function key usage, and work order data entry. | Prerequisites: None. | | Occ | L+L 1.0 2.0 2.0 | T |
| CSR232 | 2009 Spring | Auto Insurance and Claims Overview | | Overview of auto insurance coverage, including claims and claims handling. Emphasis on liability, uninsured and underinsured motorist, medical and physical damage | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| CSR233 | 2009 Spring | Auto Damage Appraisal | | Overview of various components of the automobile. Emphasis on types of damage that may require a claims report. Covers appraisal process, | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | total losses, and vehicle design platforms | | | | | |
| CSR242 | 2009 Summer I | Auto Insurance Loss Reports | | Automobile insurance loss reports. Determination of fault and claims processing emphasized. Various types of damage covered as well as claim correspondence and compliance policies. | Prerequisites: None. | | Occ | LEC 2.0 2.0 2.0 | S |
| CSR243 | 2018 Fall | Auto Insurance Loss Reports Lab | | Practical application of processing of automobile insurance accident and loss reports. Emphasis on customer service while processing claims reports. Usage of computerized insurance system included. | Prerequisites: A grade of C or better in CSR242. | | Occ | LAB 2.0 6.0 6.0 | T |
| CSR280AB | 2018 Fall | Customer Service Internship | | Customer service experience in business or industry. Eighty hours of designated work per credit. Maximum of eight credits allowed | Prerequisites: Permission of Department or Division. | | | L+L 2.0 2.0 2.0 | T |
| CTE200 | 2016 Summer | Career and Technical Education: Principles, Philosophy and Student Organizations | | Examination of the role of career and technical educational (CTE) pathways as they relate to workforce development. Overview of career and technical student organizations (CTSO), occupational clusters, development and role of career and technical education, philosophy, history and impact of federal funding revenue streams, and career and technical delivery system. | Prerequisites: None. | CTE200 coursework intended for Arizona Department of Education Provisionally certified Career and Technical Education instructors.<br><br>Occ | Occ | LEC 3.0 3.0 3.0 | S |
| CTE210 | 2016 Summer | Career and Technical Education: Teaching Methods and Curriculum Development | | Overview and practical application of teaching methodology and curriculum development for secondary education career and technical education teachers. Teaching strategies and learning styles covered. Curriculum design/mapping, lesson objectives, time | Prerequisites: None. | CTE210 coursework is intended for Arizona Department of Education Provisionally certified Career and Technical Education instructors. | Occ | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | management skills, teaching resources, and Arizona Department of Education Career and Technical Curriculum Framework Standards also included. | | | | | |
| CTE220 | 2016 Summer | Career and Technical Education: Classroom Management and Lab Safety | | Classroom management techniques. Classroom discipline models, student behavior and misbehavior, group dynamics, student self-motivation, and learning styles covered. Essentials of lab safety issues, including regulatory agencies and policies. State Board of Education Professional Teaching Standards emphasized. | Prerequisites: None. | CTE220 coursework intended for Arizona Department of Education Provisionally certified Career and Technical Education instructors. | Occ | LEC 4.0 4.0 4.0 | S |
| CTR101 | 2018 Fall | Court Reporting: Machine Shorthand Theory Block I | | Basic court reporting machine shorthand theory. | Prerequisites: (45 wpm keyboarding or permission of Department or Division) and placement into ENG101 or ENG107 district placement exam OR permission of Department or Division. | Transcript(s) of high school graduation OR equivalent must be on file in the Admissions and Records Office. | Occ | L+L 6.0 10.0 10.0 | T |
| CTR102 | 2018 Fall | Court Reporting: Machine Shorthand Theory Block II | | Introduction of court briefs and phrases. | Prerequisites: A grade of C or better in CTR101 or permission of Department or Division or Program Director. | | | L+L 6.0 10.0 10.0 | T |
| CTR105 | 2018 Fall | Court Reporting: Punctuation and Grammar | | Application of the rules of punctuation, grammar, spelling, and capitalization to sentences, paragraphs, and transcripts through systematic testing and/or projects. | Prerequisites: None. | | Occ | L+L 1.0 1.0 1.0 | T |
| CTR106 | 2018 Fall | Court Reporting: Legal Terminology | | Civil/criminal law, the judicial system, legal terminologies, and researching legal citations. | Prerequisites: None. | Occ | Occ | L+L 1.0 1.0 1.0 | T |
| CTR107 | 2018 Fall | Court Reporting: Medical Terminology | | Body systems and functions. Psychological and physical | Prerequisites: None. | | Occ | L+L 1.0 1.0 1.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | diseases and drugs. Methods of researching medical information. | | | | | |
| CTR197 | 2013 Spring | Court Reporting Lab | | Court reporting practice/transcription as assigned under supervision. | Prerequisites: None. Corequisites: CTR101. | | Occ | LAB 1.0 5.0 0.0 | Z |
| CTR209 | 2018 Fall | Judicial Procedures for Court Reporting | | Professional procedures, techniques, ethics, and introduction to video applications for judicial court reporters. Proper transcription methods and correct formatting styles for transcript production. | Prerequisites: A grade of C or better in CTR102 or permission of Program Director. | | Occ | L+L 3.0 5.0 5.0 | T |
| CTR211 | 2018 Fall | Judicial Internship | | A minimum of 50 hours of participation in an actual courtroom deposition setting. Transcript production required. | Prerequisites: A grade of C or better in CTR209 and student must pass one (1) 200 words per minute Q/A test with speed and accuracy to meet court reporting industry standards or permission of Program Director. | | Occ | LAB 1.0 4.0 0.0 | C |
| CTR215 | 2018 Fall | Computer-Aided Transcription | | Computer terminology, trouble-shooting and basic maintenance of a computer-aided transcription (CAT) system. Court reporting system set-up, maintenance and operation. Realtime system applications in specific environments. Production of transcripts from dictation and with a computer-aided transcription system. | Prerequisites: A grade of C or better in (CTR101 and BPC101AA) or permission of Department or Division. | | | L+L 3.0 3.0 3.0 | T |
| CTR251 | 2018 Fall | Court Reporting Speed Building Block III | | Instruction, dictation, and readback in speeds of 80-100 wpm in Literary Material; 100-120 wpm in Jury Charge Material; 120-140 wpm in Question/Answer Testimony Material with a minimum of 95% accuracy. | Prerequisites: A grade of C or better in CTR102 or permission of Department or Division. | Occ | | L+L 14.0 20.0 20.0 | T |
| CTR251AA | 2018 Fall | Court Reporting Skill Building: Block III Literary Material | | Development of speed and accuracy skills with dictation, | Prerequisites: A grade of C or better in | Student must demonstrate completion of required speed in | Occ | L+L 4.0 4.0 4.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | readback, and transcription in literary material. Speed requirements of 80 and 100 words per minute (wpm) with a speed and accuracy to meet court reporting industry standards. | CTR102 or permission of Program Director. Corequisites: (CTR251AB or CTR252AB or CTR253AB) and (CTR251AC or CTR252AC or CTR253AC). | each module with a grade of C or better before enrolling in the next level. | | | |
| CTR251AB | 2018 Fall | Court Reporting Skill Building: Block III Jury Charge Material | | Development of speed and accuracy skills with dictation, readback, and transcription in jury charge material. Speed requirements of 100 and 120 words per minute (wpm) with speed and accuracy to meet court reporting industry standards. | Prerequisites: A grade of C or better in CTR102 or permission of Program Director. Corequisites: (CTR251AA or CTR252AA or CTR253AA) and (CTR251AC or CTR252AC or CTR253AC). | Student must demonstrate completion of required speed in each module with a grade of C or better before enrolling in the next level. | Occ | L+L 4.0 4.0 4.0 | T |
| CTR251AC | 2018 Fall | Court Reporting Skill Building: Block III Question/Answer Testimony Material | | Development of speed and accuracy skills with dictation, readback, and transcription in question/answer material. Speed requirements of 120 and 140 words per minute (wpm) with speed and accuracy to meet court reporting industry standards. | Prerequisites: A grade of C or better in CTR102 or permission of Program Director. Corequisites: (CTR251AA or CTR252AA or CTR253AA) and (CTR251AB or CTR252AB or CTR253AB). | Student must demonstrate completion of required speed in each module with a grade of C or better before enrolling in the next level. | Occ | L+L 6.0 12.0 12.0 | T |
| CTR252 | 2018 Fall | Court Reporting Speed Building Block IV | | Instruction, dictation, and readback in speeds of 120-140 wpm in Literary Material; 140-160 wpm in Jury Charge Material; 160-180 wpm in Question/Answer Testimony Material with a minimum of 95% accuracy. | Prerequisites: A grade of C or better in CTR251 or permission of Department or Division. | | | L+L 14.0 20.0 20.0 | T |
| CTR252AA | 2018 Fall | Court Reporting Skill Building: Block IV Literary Material | | Development of speed and accuracy skills with dictation, readback, and transcription in literary material. Speed requirements of 120 and 140 words per minute (wpm) with speed and accuracy to meet | Prerequisites: A grade of C or better in CTR251AA or permission of Program Director. Corequisites: (CTR251AB or CTR252AB or | Student must demonstrate completion of required speed in each module with a grade of C or better before enrolling in the next level. Occ | Occ | L+L 4.0 4.0 4.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | court reporting industry standards. | CTR253AB) and (CTR251AC or CTR252AC or CTR253AC). | | | | |
| CTR252AB | 2018 Fall | Court Reporting Skill Building: Block IV Jury Charge Material | | Development of speed and accuracy skills with dictation, readback, and transcription in jury charge material. Speed requirements of 140 and 160 words per minute (wpm) with speed and accuracy to meet court reporting industry standards. | Prerequisites: A grade of C or better in CTR251AB or permission of Program Director. Corequisites: (CTR251AA or CTR252AA or CTR253AA) and (CTR251AC or CTR252AC or CTR253AC). | Student must demonstrate completion of required speed in each module with a grade of C or better before enrolling in the next level. | Occ | L+L 4.0 4.0 4.0 | T |
| CTR252AC | 2018 Fall | Court Reporting Skill Building: Block IV Question/Answer Testimony Material | | Development of speed and accuracy skills with dictation, readback, and transcription in question/answer material. Speed requirements of 160 and 180 words per minute (wpm) with speed and accuracy to meet court reporting industry standards. | Prerequisites: A grade of C or better in CTR251AC or permission of Program Director. Corequisites: (CTR251AA or CTR252AA or CTR253AA) and (CTR251AB or CTR252AB or CTR253AB). | Student must demonstrate completion of required speed in each module with a grade of C or better before enrolling in the next level. | Occ | L+L 6.0 12.0 12.0 | T |
| CTR253 | 2018 Fall | Court Reporting Speed Building Block V | | Instruction, dictation, and readback in speeds of 160-180 wpm in Literary Material; 180-200 wpm in Jury Charge Material; 200-225 wpm in Question/Answer Testimony Material with a minimum of 95% accuracy. | Prerequisites: A grade of C or better in CTR252 or permission of Department or Division. | | | L+L 14.0 20.0 20.0 | T |
| CTR253AA | 2018 Fall | Court Reporting Skill Building: Block V Literary Material | | Development of speed and accuracy skills with dictation, readback and transcription in literary materials. Speed requirements 160 and 180 words per minute (wpm) with speed and accuracy to meet court reporting industry standards. | Prerequisites: A grade of C or better in CTR252AA or permission of Program Director. Corequisites: (CTR251AB or CTR252AB or CTR253AB) and (CTR251AC or CTR252AC or CTR253AC). | Occ | | L+L 4.0 4.0 4.0 | T |



Occ

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| CTR253AB | 2018 Fall | Court Reporting Skill Building: Block V Jury Charge Material | | Development of speed and accuracy skills with dictation, readback and transcription in jury charge materials. Speed requirements 180 and 200 words per minute (wpm) with speed and accuracy to meet court reporting industry standards. | Prerequisites: A grade of C or better in CTR252AB or permission of Program Director. Corequisites: (CTR251AA or CTR252AA or CTR253AA) and (CTR251AC or CTR252AC or CTR253AC). | | | L+L 4.0 4.0 4.0 | T |
| CTR253AC | 2018 Fall | Court Reporting Skill Building: Block V Question/Answer Testimony Material | | Development of speed and accuracy skills with dictation, readback, and transcription in question/answer material. Speed requirements of 200 and 225 words per minute (wpm) with speed and accuracy to meet court reporting industry standards. | Prerequisites: A grade of C or better in CTR252AC or permission of Program Director. Corequisites: (CTR251AA or CTR252AA or CTR253AA) and (CTR251AB or CTR252AB or CTR253AB). | Occ | | L+L 6.0 12.0 12.0 | T |
| CTR253AD | 2019 Fall | Court Reporting Skill Building Review | | Progression and retention of speed and accuracy skills with dictation, readback, and transcription in literary, jury charge, and question/answer material. | Prerequisites: A grade of C or better in CTR253AA, or CTR253AB, or CTR253AC, or permission of Program Director. | CTR253AD may be repeated five (5) times for a total of fifteen (15) credits. Occ | Occ | LAB 3.0 20.0 0.0 | Z |
| CTR271 | 2018 Fall | Scoping | | Ability to read machine shorthand steno notes and employ Computer-Aided Transcript (CAT) software to edit/correct court reporters' files with an emphasis on correct transcript formatting structure. Concentration on grammar, punctuation, proofreading skills, and accuracy to produce transcripts, including but not limited to trials, depositions, conferences, arbitrations, and other administrative hearings. | Prerequisites: A grade of C or better in (BPC101AA, CTR101, and CTR215) or permission of Department or Division. | Occ | | L+L 2.0 2.0 2.0 | T |
| CTR272 | 2018 Fall | Transcription | | Machine shorthand transcription, realtime writing | Prerequisites: A grade of C or better in | | | L+L 2.0 2.0 2.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | from audio and/or video files, with an emphasis on correct transcript formatting structure. Concentration on dictation, transcription, proofreading skills and accuracy. Computerized machine shorthand in conjunction with specialized Computer-Aided Transcription (CAT) software to generate transcripts that would include medical, interviews, judicial hearings, dissertations, and meetings. | (BPC101AA, CTR101, CTR215, and CTR271) or permission of Department or Division. | | | | |
| CTR290 | 2013 Spring | Registered Professional Reporter Preparation | | Live dictation practice to increase speed in any machine shorthand system in preparation for the national Court Reporters Association Registered Professional Reporter (RPR) Exam. | Prerequisites: One year of machine shorthand. | | Occ | LEC 2.0 2.0 2.0 | S |
| CTR291 | 2018 Fall | Extended Machine Shorthand Practice | | Dictation and testing in Literary, Jury Charge, and Question/Answer testimony material at incremental speeds for the purpose of the student to increase machine shorthand speed and accuracy. Readback of paper or computerized notes. | Prerequisites: Permission of Program Director or Instructor. | CTR291 may be repeated for credit. | Occ | LAB 2.0 2.0 2.0 | T |
| CTT110 | 2018 Fall | Introduction to Caterpillar Service Industry | | Introduction to the Caterpillar organization and product line, basic shop safety, and shop operation. Includes computer operations and service information systems. | Prerequisites: Permission of Department or Division. | | | L+L 3.0 5.0 5.0 | T |
| CTT111 | 2018 Fall | Caterpillar Engine Fundamentals | | Introduction to diesel engine theory and service procedures. Focuses on Caterpillar engine systems and applications. | Prerequisites: A grade of C or better in CTT110. | | Occ | L+L 4.0 8.0 8.0 | T |
| CTT112 | 2018 Fall | Hydraulic Fundamentals | | Hydraulic fundamentals, including functions of valves used in Caterpillar hydraulic systems, functions of vane pumps, gear pumps, and | Prerequisites: A grade of C or better in CTT110. | Occ | Occ | L+L 3.0 5.0 5.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | piston pumps, and assembly and disassembly of hydraulic components. Includes ISO hydraulic symbols. | | | | | |
| CTT113 | 2018 Fall | Fuel Systems | | Introduction to fuel systems used in Caterpillar engines. Covers fuel selection, calibrations, and nozzle testing procedures, governor operation, and hydraulic fuel ratio controls. Includes 1.1 and 1.2 MUI and HEUI, EUI, Nippondenso, and Zexel fuel systems. | Prerequisites: A grade of C or better in CTT110. | | Occ | L+L 3.0 5.0 5.0 | T |
| CTT114 | 2018 Fall | Basic Electrical Fundamentals | | Basic electrical and electronic principles used by the technician to diagnose and repair electrical systems in Caterpillar machines. | Prerequisites: A grade of C or better in CTT110. | | Occ | L+L 3.0 5.0 5.0 | T |
| CTT115 | 2018 Fall | Air Conditioning Fundamentals | | Introduction to principles, systems, components, and servicing of air conditioning systems used in Caterpillar products. | Prerequisites: A grade of C or better in CTT110. | | Occ | L+L 3.0 5.0 5.0 | T |
| CTT116 | 2018 Fall | Power Train I | | Basic components and operations of power train systems used in Caterpillar machines. Covers basic components, clutches, manual shift transmissions, and power shift transmissions. | Prerequisites: A grade of C or better in CTT110. | | Occ | L+L 3.0 5.0 5.0 | T |
| CTT117 | 2018 Fall | Machine Hydraulic Systems | | Operation, testing, and adjustment procedures for pilot operated hydraulic systems, load sensing pressure compensated (LSPC) hydraulic systems, electro-hydraulic systems, and hydrostatic systems. Components of hydraulic systems and oil flow through the system. | Prerequisites: A grade of C or better in CTT110. | | Occ | L+L 3.0 5.0 5.0 | T |
| CTT118 | 2015 Spring | Caterpillar Dealer Internship I | | Application of skills and knowledge gained in CTT coursework in an internship in a dealership environment. | Prerequisites: A grade of C or better in CTT110. | | Occ | LAB 3.0 3.0 0.0 | P |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Develops professional skills required of Caterpillar service technician. Provides experience in tool usage, shop safety, connective devices, computers and service information systems, air intake and exhaust systems, lubrication systems, cooling systems, fuel systems, engines, and electrical systems. Requires intern to complete a list of learning objectives, keep a logbook, and be evaluated by dealership supervisor and internship coordinator. | | | | | |
| CTT119 | 2018 Fall | Caterpillar Dealer Internship II | | Application of skills and knowledge gained in CTT coursework in an internship in a dealership environment. Develops professional skills required of Caterpillar service technician. Provides experience in hydraulics, pumps, valves, cylinders, and pilot-operated implement system. Requires intern to complete a list of learning objectives, keep a logbook, and be evaluated by dealership supervisor and internship coordinator. | Prerequisites: A grade of C or better in CTT110. | Occ | | LAB 3.0 3.0 0.0 | P |
| CTT200 | 2018 Fall | Power Train II | | Methods of transferring power. Hydraulic-driven machines and mechanical power train components, including differentials, brakes, final drives, and undercarriage. | Prerequisites: A grade of C or better in CTT110. | | | L+L 3.0 5.0 5.0 | T |
| CTT201 | 2018 Fall | Machine Electronics | | Introduction to machine electronic systems and diagnostic tooling used to diagnose and repair the complex electrical/electronic systems installed in Caterpillar machines. | Prerequisites: A grade of C or better in CTT110. | | | L+L 3.0 5.0 5.0 | T |



Occ

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| CTT202 | 2018 Fall | Engine Diagnostics and Repair | | In-depth study of engine diagnostics and repair techniques used to troubleshoot and repair engine problems in Caterpillar machines. Selection and use of Caterpillar diagnostic tools. Covers oil, air, cooling, and fuel systems. | Prerequisites: A grade of C or better in CTT110. | | Occ | L+L 3.0 5.0 5.0 | T |
| CTT203 | 2018 Fall | Machine Diagnostics | | Failure analysis, troubleshooting logic, and diagnostic tooling and processes used to diagnose and repair the complex systems installed in Caterpillar machines. Use of Caterpillar's Applied Failure Analysis. Introduction to Service Technician Workbench (STW) applications. | Prerequisites: A grade of C or better in CTT110. | | Occ | L+L 3.0 5.0 5.0 | T |
| CTT204 | 2018 Fall | Machine Specific Systems | | Introduction to machine-specific systems. Machines covered include compact construction equipment, agricultural combines and challengers, 325B Excavator, off-highway trucks, wheel tractor scrapers, and motor graders. | Prerequisites: A grade of C or better in CTT110. | | Occ | L+L 3.0 5.0 5.0 | T |
| CTT205 | 2018 Fall | Caterpillar Dealer Internship III | | Application of skills and knowledge gained in CTT coursework in an internship in a dealership environment. Develops professional skills required of Caterpillar service technician. Provides experience in air conditioning systems, power trains, couplings, transmissions, and hydraulic systems. Requires intern to complete a list of learning objectives, keep a logbook, and be evaluated by dealership supervisor and internship coordinator. | Prerequisites: A grade of C or better in CTT110. | | Occ | LAB 3.0 3.0 0.0 | P |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| CTT206 | 2018 Fall | Caterpillar Dealer Internship IV | | Application of skills and knowledge gained in CTT coursework in an internship in a dealership environment. Develops professional skills required of Caterpillar service technician. Provides experience in lubrication systems, engine air induction systems, cooling systems, fuel systems, timing systems, failure analysis, diagnosis, and troubleshooting of specific types of Caterpillar equipment. Requires intern to complete a list of learning objectives, keep a logbook, and be evaluated by dealership supervisor and internship coordinator. | Prerequisites: A grade of C or better in CTT110. | | Occ | LAB 3.0 3.0 0.0 | P |
| CUL101 | 2019 Fall | Culinary Basics | | Theory and practice of basic elements of culinary arts fundamentals. Emphasis on safety, sanitation and uniform requirements, culinary terminology, basic nutritional guidelines, equipment needs and usage, standard measurements, knife selection and care, basic knife cuts, and fruit and vegetable identification and preparation. | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| CUL102 | 2019 Fall | Hot Foods | | Cooking techniques and preparation of varied meat, fish and poultry items. Theory and practice of production of stocks, sauces, and soups. Study of butchering, yields, purchasing and grade classification. | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| CUL103 | 2019 Fall | Breakfast and Cold Foods | | Cooking techniques and preparation of breakfast items, salads, sandwiches, and dressings. Theory and practice of production of egg, pasta, cheeses, and fruit | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | dishes, canapes and hors d`oeuvre creations. Study of lettuces, fruits, grains, cheeses and dressings as components of salads and sandwiches. | | | | | |
| CUL104 | 2019 Fall | Bakery and Pastry | | Provides a study of cooking techniques and preparation methods for cakes, pies, cookies and simple desserts as well as production of doughs and breads. Includes preparation of various bakery sauces and toppings, uses of chocolate, and appropriate presentation methods for various types of desserts. | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| CUL105 | 2019 Fall | Principles of Professional Cooking | | Introductory principles and skills for professional cooking. Introduces organizational structure of kitchen staff in different types of kitchens. Includes basic principles of safety and sanitation, equipment and utensil use, French cooking terms, recipe use, measuring techniques, identification and use of seasoning agents, and basic cooking methods applied to stocks, sauces and soups, vegetables, starches, entrees, and eggs. Emphasis on practical experiences in a commercial kitchen. | Prerequisites: None. | | Occ | L+L 3.0 5.0 5.0 | T |
| CUL107 | 2018 Fall | Principles and Techniques of Garde Manger | | Prepares students for employment in garde manger pantry positions in restaurants and resorts. Includes costing out and ordering food products; food and safety factors; preparing and garnishing pantry product. Emphasis on classical food presentation. | Prerequisites: A grade of C or better in CUL105 or permission of Program Director. | | Occ | L+L 3.0 5.0 5.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| CUL109 | 2012 Spring | Menu Planning Development | HRM102 | Principles and techniques of menu planning for food service operations where food is served in quantity; includes applications for health care institutions, commercial kitchens, school cafeterias, and industrial facilities. | Prerequisites: None. | | Occ | LEC 2.0 2.0 2.0 | S |
| CUL111 | 2012 Spring | Purchasing for Food Service Systems | | Food purchasing for institutions: cost factors, quality standards, purchasing practices and controls. | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| CUL113 | 2020 Fall | Commercial Baking Techniques | | Principles and techniques for preparation, storage, and serving of bakery products. Includes breads, cakes, pies, pastry, cookies, fillings, and icings. Emphasis on practical experiences in a commercial bakery. | Prerequisites: None. | Students must have or obtain a current Maricopa County Arizona Food Handler's Certificate prior to food handling activities to successfully participate in the course. Recommend students complete this prior to the start of the course. | Occ | L+L 3.0 5.0 5.0 | T |
| CUL115 | 2003 Fall | Food Service Sanitation, Safety and Stewarding | | Focuses on the theory and practice of food service safety and sanitation. Emphasis on understanding and applying the Hazard Analysis Critical Control Points (HACCP) concept. Reviews legal elements of food service sanitation based on requirements and recommendations of Maricopa County Health Department. Focuses on stewarding as an important kitchen support service with emphasis on appropriate practices and principles of receiving food and product rotation | Prerequisites: None. | | Occ | LEC 2.0 2.0 2.0 | S |
| CUL117 | 2018 Fall | Catering - Planning and Production | | Focuses on the basic steps of the catering process in a commercial food setting. Includes a review of safety and sanitation principles. Emphasizes practical experiences in booking and | Prerequisites: A grade of C or better in CUL105. | | | LAB 1.0 3.0 3.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | record keeping, planning, ordering, production, and service set-up and break-down for both in-house and off-premise catered events. | | | | | |
| CUL119 | 2012 Spring | Baking Theory and Retail Operations | | Baking principles to include detailed study of ingredients, heat transfer, and recipe conversions. Basic business operations for a retail bakery including bakery product line and floor plan design. | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| CUL120 | 2019 Fall | Food Costing, Purchasing and Inventory Control | | Basic skills necessary to understand and utilize cost controls. Focus on measurements, recipe costing and yield analysis. Application of systems and practices for efficient food purchasing, storage, production, budgeting and inventory. | Prerequisites: None. | | Occ | L+L 3.0 3.0 3.0 | T |
| CUL121 | 2012 Spring | Principles of Food and Beverage Service | | Qualities and skills necessary for successful food and beverage service. Includes room planning and setup, duties of service staff, types of service, customer relations, dining room etiquette, and cash management. | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| CUL123 | 2018 Fall | Customer Service Practicum | | Professional food and beverage experience in a commercial food service operation. Focuses on food server, host/hostess, cashier, and busperson. Includes beverage preparation, application of sanitation, and safety concepts. Stresses professionalism in service, demeanor, and appearance. | Prerequisites: A grade of C or better in FON104. | | Occ | L+L 4.0 11.0 11.0 | T |
| CUL123AA | 2013 Fall | Customer Service Practicum | | Professional food and beverage experience in a commercial food service operation. Focuses on food server, host/hostess cashier, busperson. Includes beverage | Prerequisites: A grade of C or better in FON104 and Permission of Department or Division. | CUL123AA may be repeated for a total of four (4) credits. | Occ | L+L 1.0 4.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | preparation, application of sanitation and safety concepts. Stresses professionalism in service, demeanor, and appearance. | | | | | |
| CUL123AB | 2018 Fall | Customer Service Practicum | | Professional food and beverage experience in a commercial food service operation. Focuses on food server, host/hostess cashier, bus person. Includes beverage preparation, application of sanitation and safety concepts. Stresses professionalism in service, demeanor, and appearance. | Prerequisites: None. | | Occ | L+L 2.0 5.0 5.0 | T |
| CUL127 | 2019 Fall | Classical Desserts | | Advanced principles and techniques in commercial baking and dessert preparation. Focus on fine pastries with European flair and on desserts served in better hotels, restaurants, and resorts. Preparation of macaroons, tarts, puff pastries, specialty cakes, and desserts such as Bavarian creams, mousses, custards, souffles, crepe desserts, and flammeries. Preparation and use of sauces, techniques for using nuts and chocolate, and exploration of new recipes. | Prerequisites: A grade of C or better in CUL113, or permission of Program Director. | | Occ | L+L 3.0 5.0 5.0 | T |
| CUL130 | 2019 Fall | Savory Foods I | | Studies all facets of hot foods with an emphasis on French and regional cooking techniques; including vegetable preparation, stocks, sauces, and soups. Reviews ingredients, production and plating techniques that are unique to contemporary, international and regional cuisines. | Prerequisites: None. | | Occ | L+L 6.0 7.5 7.5 | T |
| CUL131 | 2018 Fall | Customer Services in Food Service Systems | | Customer service principles and procedures in commercial | Prerequisites: None. | | Occ | LAB 1.0 3.0 3.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | food service operations. Focuses on experiences in busing, waiter/waitressing, hosting, and beverage preparation in a coffee shop or at catered events. Emphasis on professionalism. Includes principles of safety and sanitation. | | | | | |
| CUL137 | 2023 Fall | Specialty Breads and Breakfast Pastry | | The preparation of classical and artisan breads using advanced production techniques and skills. Classic breakfast pastry, with the production of laminated doughs, sweet doughs, and rich yeast doughs to include Danish, croissant, puff pastry, brioche, and other international classics. Completion of edible centerpieces made out of various styles of bread. | Prerequisites: None. | CUL137 students must have or obtain a current Maricopa County Arizona Food Handler's Certificate prior to food handling activities to successfully participate in the course. Recommend students complete this prior to the start of the course. | Occ | L+L 3.0 5.0 5.0 | T |
| CUL140 | 2003 Fall | Culinary Principles and Kitchen Management I | | Historical background of the culinary profession and food components. Overview of kitchen administration and responsibilities. Includes food history, terminology, tools and equipment, food preparation, tasting and sensory evaluation, stocks and sauces, herbs and spices, chocolates, vegetables, fruits, pasta, grains and cheeses | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| CUL145 | 2012 Spring | Banquet Food and Beverage Service Externship | | Waiter/waitress serving experiences in a banquet setting; includes instructor-assisted placement, orientation, job seeking skills, and working a minimum of four banquets or twenty-four hours in banquet service. Professional appearance and attire required. | Prerequisites: A grade of C or better in CUL121, CUL123, and FON104. | | | LAB 1.0 5.0 0.0 | C |



Occ

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| CUL150 | 2018 Fall | Garde Manger I | | Provides a foundation in Garde Manger. Includes equipment, sanitation and safety, production, salads, emulsified and non-emulsified dressings, sandwiches, cold sauces, salad condiments, knife skills, cleaning of salad greens and spice and herb identification. Studies culinary terms and presentation techniques. Teaches cooking techniques such as poaching, sauteing, and grilling in the context of Garde Manger work. | Prerequisites: None. | | Occ | L+L 2.0 3.5 3.5 | T |
| CUL160 | 2022 Fall | Bakery I | | Theory and practice of operating a bakery or pastry shop in a hotel or restaurant kitchen. Provides experience in planning, ordering, scheduling and producing fine French and American pastries and baked goods. Emphasis on rapid, high-quality hand production of doughs, creams, fillings, cookies and breads. | Prerequisites: None. | | Occ | L+L 3.0 5.0 5.0 | T |
| CUL170 | 2023 Fall | Dining Room Operations I | | Focuses on theory and practice of operating a casual dining room; includes set-up and clean-up, food and beverage service, proper etiquette, point-of-sale operation and presenting guest checks. Emphasis on service techniques, including buffet and banquet set-ups, and customer accommodations. | Prerequisites: None. | | Occ | L+L 3.0 5.0 5.0 | T |
| CUL180 | 1998 Fall | Food In History | | Focuses on the history of foodstuffs, the story of cuisine and the social history of eating. Includes the relationship between people and what they eat, between particular foods and social | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | behavior, and between dietary habits, customs and methods of cooking | | | | | |
| CUL190 | 2000 Summer I | Catering Operations I | | Studies theory and practice of planning and executing catering functions; includes initial customer contact and follow-up, room set-up and scheduling, menu and incidental planning event execution and breakdown, billing and post-event follow up | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| CUL201 | 2018 Fall | International Cuisine | | Gourmet international food preparation applied to restaurants. Review principles of sanitation and safety. Explores history and customs, serving styles, and preparation techniques of foods unique to selected international cultures. Emphasis on practical cooking experiences in a restaurant kitchen. Cultures to include, but not limited to: Italian, German, Oriental, Middle Eastern, and Spanish. | Prerequisites: A grade of C or better in CUL105 or permission of Program Director. | | Occ | L+L 3.0 5.0 5.0 | T |
| CUL203 | 2018 Fall | American Regional Cuisine | | American regional food preparation applied to restaurants. Review principles of sanitation and safety. Explores history and customs, serving styles, and preparation techniques of foods unique to selected American regions. Emphasis on practical cooking experiences in a restaurant setting. American regions to include, but not limited to: Southern, Cajun/Creole, New England, Mid-West, and Pacific Coast. | Prerequisites: A grade of C or better in CUL105 or permission of Program Director. | | Occ | L+L 3.0 5.0 5.0 | T |
| CUL205 | 2018 Fall | French Cuisine | | Principles of French cooking applied to restaurant kitchens. | Prerequisites: A grade of C or better in | | | L+L 3.0 5.0 5.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Includes review of safety and sanitation principles, orientation to French culture, use of French terms and recipes, and reading French menus. Emphasis on practical experiences in preparing French meals in a restaurant kitchen. Introduces preparation of appetizers, hors-d`oeurves, charcuterie items, pastries, and desserts. | CUL105 or permission of Program Director. | | | | |
| CUL207 | 2018 Fall | Pacific Rim Cuisine | | Local and gourmet Pacific Rim food preparation applied to restaurants. Overview of principles of sanitation and safety. Explores history and customs, serving styles, and preparation techniques of foods unique to Pacific Rim cultures. Emphasis on practical cooking experiences in a restaurant kitchen. Cultures to include, but not limited to Chinese, Japanese, Thai, Korean, and South Pacific islands. | Prerequisites: A grade of "C" or better in CUL105. | Occ | | L+L 3.0 5.0 5.0 | T |
| CUL209 | 2018 Fall | Italian Cuisine | | Principles of Italian cooking applied to restaurant kitchens. Includes review of safety and sanitation principles, orientation to Italian culture, use of Italian terms and recipes, and reading Italian menus. Emphasis on practical experiences in preparing Italian meals in a restaurant kitchen. Introduces preparation of appetizers, entrees, salads, fresh pasta items, pastries, and desserts. | Prerequisites: A grade of "C" or better in CUL105. | Occ | | L+L 3.0 5.0 5.0 | T |
| CUL210 | 1998 Fall | Menu Planning and Facilities Design | | Principles and techniques of menu planning and restaurant design for food service operations. Includes applications for health care | Prerequisites: None. | | Occ | LEC 2.0 2.0 2.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | institutions, commercial kitchens, and industrial facilities. Studies building codes and examines the relationships among equipment, staff and customers in the design of a facility | | | | | |
| CUL211 | 2018 Fall | Professional Cooking Practicum | | Preparation of hot and cold foods in a commercial food service operation; experience in volume food production preparing salads, soups, stocks, sauces, entrees, starches, and vegetables; designed to develop knowledge and skills necessary to cook in a variety of commercial kitchens. | Prerequisites: A grade of C or better in (CUL105 and FON104) or permission of Department or Division. | | | L+L 7.0 19.0 19.0 | T |
| CUL211AA | 2013 Fall | Professional Cooking Practicum | | Preparation of hot and cold foods in a commercial food service operation; experience in volume food production preparing salads, soups, stocks, sauces, entrees, starches, and vegetables; designed to develop knowledge and skills necessary to cook in a variety of commercial kitchens. | Prerequisites: A grade of C or better in CUL105, FON104, and permission of Department or Division. | Occ | | L+L 1.0 3.0 0.0 | Z |
| CUL211BA | 2018 Fall | Professional Cooking Practicum | | Preparation of hot and cold foods in a commercial food service operation; experience in volume food production preparing salads, soups, stocks, sauces, entrees, starches, and vegetables; designed to develop knowledge and skills necessary to cook in a variety of commercial kitchens. | Prerequisites: A grade of C or better in (CUL105 and FON104) or permission of Department or Division. Corequisites: CUL211BB. | Occ | | L+L 4.0 11.0 11.0 | T |
| CUL211BB | 2018 Fall | Professional Cooking Practicum | | Preparation of hot and cold foods in a commercial food service operation; experience in volume food production preparing salads, soups, | Prerequisites: A grade of C or better in (CUL105 and FON104) or permission of Department or Division. | Occ | | L+L 3.0 6.0 6.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | stocks, sauces, entrees, starches, and vegetables; designed to develop knowledge and skills necessary to cook in a variety of commercial kitchens. | Corequisites: CUL211BA. | | | | |
| CUL213 | 2018 Fall | Buffet Catering | | Focuses on the basic steps of the catering process in a commercial food setting. Includes an overview of safety and sanitation principles. Emphasizes practical experiences in booking and record keeping, function planning, ordering, production, and service set-up and breakdown for both in-house and off-premise catered events. | Prerequisites: A grade of C or better in CUL105 or permission of Program Director. | | | L+L 3.0 5.0 5.0 | T |
| CUL215 | 2020 Fall | Advanced Pastry Arts | | Advanced pastry arts and decorative work as applied to showpieces and special occasion cakes. Includes sugar work such as pulled, blown, and poured as well as the use of tempered and modeling chocolate. Design and execution of a three-tier wedding cake as well as work on a special occasion and team wedding cake using gum paste, pastillage, chocolate, or marzipan. Includes desserts for special diets and spa desserts. | Prerequisites: A grade of C or better in CUL113 or permission of Program Director. | CUL215 may be repeated for a total of six (6) credit hours. | Occ | L+L 3.0 5.0 5.0 | T |
| CUL217 | 2019 Fall | Wedding Cake Production | | Basic and advanced execution for special occasion, wedding, and groom's cakes to include initial design work, baking, icing, and advanced finishing techniques to include the use of fondant and gum paste. Enhancement of cakes to include basic sugar, pastillage, and chocolate decoration. | Prerequisites: A grade of C or better in CUL113 or permission of Program Director. | | | L+L 3.0 5.0 5.0 | T |



Occ

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| CUL219 | 2020 Fall | Professional Pastry Techniques | | Advanced production techniques for plated desserts, frozen desserts, modern and classical gateaux, petits fours, and chocolates. | Prerequisites: A grade of C or better in CUL113 or permission of Program Director. | | Occ | L+L 3.0 5.0 5.0 | T |
| CUL220 | 2006 Fall | Food Service Nutrition | | Study of basic nutrition concepts with an emphasis on the nutritional concerns of restaurants and other types of food service operations. Focuses on nutrients in foods, the relationships to other nutrients and the planning of well-balanced menus throughout the life cycle | Prerequisites: None. | | Occ | LEC 2.0 2.0 2.0 | S |
| CUL223 | 2013 Fall | Food Service Management | | Administrative procedures and personnel relationships: Management of materials costs, record keeping and legal aspects of food and beverage service operations. | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| CUL225 | 2012 Spring | Supervisory Functions in Food Service | | Principles and techniques of supervision applied to food service workers. Includes roles and responsibilities of a food service supervisor, basic theories of management, line staffing functions, basic concepts of communication, motivation techniques, problem-solving, labor relations and laws, performance evaluation and basic record keeping functions in food service settings. | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| CUL230 | 2020 Spring | Savory Foods II | | Hot food product utilization, preparation and display for contemporary, continental kitchen. Focuses on classical preparation skills with an emphasis on contemporary and international flavors in food production. Students also practice organization, communication, teamwork and plating skills. Food production | Prerequisites: A grade of C or better in CUL130. | | | L+L 6.0 7.0 7.0 | T |



Occ

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | includes the creation of appetizers, hors d'oeuvres, salads, and salad dressings; the use of grains and legumes; the production of charcuterie; and the creation of display pieces in both catering and kitchen environments. | | | | | |
| CUL231AA | 2012 Spring | Culinary Studies Internship | | Work experience preparing hot and cold foods in a commercial food service operation, experience in volume food production preparing salads, soups, stocks, sauces, entrees, starches, and vegetables. Five (5) hours of work weekly. Supervision and evaluation by an internship coordinator. | Prerequisites: A grade of C or better in CUL105, FON104, and permission of Department or Division. | CUL231AA may be repeated for a total of seven (7) credits. | Occ | LAB 1.0 5.0 0.0 | C |
| CUL231AB | 2012 Spring | Culinary Studies Internship | | Work experience preparing hot and cold foods in a commercial food service operation, experience in volume food production preparing salads, soups, stocks, sauces, entrees, starches, and vegetables. Ten (10) hours of work weekly. Supervision and evaluation by an internship coordinator. | Prerequisites: A grade of C or better in CUL105, FON104, and permission of Department or Division. | CUL231AB may be repeated for a total of six (6) credits. | Occ | LAB 2.0 10.0 0.0 | C |
| CUL231AC | 2012 Spring | Culinary Studies Internship | | Work experience preparing hot and cold foods in a commercial food service operation, experience in volume food production preparing salads, soups, stocks, sauces, entrees, starches, and vegetables. Fifteen (15) hours of work weekly. Supervision and evaluation by an internship coordinator. | Prerequisites: A grade of C or better in CUL105, FON104, and permission of Department or Division. | CUL231AC may be repeated for a total of six (6) credits. | Occ | LAB 3.0 15.0 0.0 | C |
| CUL235 | 2018 Fall | Advanced Culinary Techniques I - Meats | | Theory and practice of the varied uses and preparation of protein products. Emphasis on | Prerequisites: A grade of C or better in | | | L+L 2.0 2.0 2.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | butchering, creating stocks, soups and sauces, cooking methodologies, cost effective applications, plating and selection of appropriate accompaniments and garnishes. | CUL230 or industry equivalent. | | | | |
| CUL236 | 2018 Fall | Advanced Culinary Techniques II - Seafood | | Theory and practice of the varied uses and preparation of seafood products. Emphasis on butchering, creating stocks, soups and sauces, cooking methodologies, cost-effective applications, plating and selection of appropriate accompaniments and garnishes. | Prerequisites: A grade of C or better in CUL230 or industry equivalent. | | | L+L 2.0 2.0 2.0 | T |
| CUL237 | 2018 Fall | Advanced Culinary Techniques III - Game and Poultry | | Theory and practice of the varied uses and preparation of game and poultry products. Emphasis on butchering, creating stocks, soups and sauces, cooking methodologies, cost effective applications, plating and selection of appropriate accompaniments and garnishes. | Prerequisites: A grade of C or better in CUL230 or industry equivalent. | Occ | | L+L 2.0 2.0 2.0 | T |
| CUL240 | 2003 Fall | Culinary Principles and Kitchen Management II | | Advanced culinary and management practices instruction. Emphasis on principles and terminology used in contemporary kitchens. Identification and use of fish and shellfish and game. Understanding of wine, beer and spirits. Study of diversity of international cuisines and menu development. Special emphasis on management functions and practices for kitchen supervisors and chefs, staff hiring, training and evaluation, point of sale system components, cost | Prerequisites: A grade of C or better in CUL140. | Occ<br><br>Occ | | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | accounting procedures, legal regulations and maintenance of records to understand and control profit and loss. | | | | | |
| CUL245 | 2018 Fall | Professional Kitchen Management Techniques | | Theory and practice of the key elements of kitchen leadership. Emphasis on identifying leadership and communication skills, understanding employment laws, establishing performance criteria, developing accountability, utilizing motivational procedures and training practices, controlling labor and food costs, maintaining guest satisfaction and bottom line profits. | Prerequisites: A grade of C or better in CUL240 or industry equivalent. | Occ | | L+L 2.0 2.0 2.0 | T |
| CUL250 | 2018 Fall | Garde Manger II | | Refinement of skills required in a Garde Manger Department. Preparation of appetizers, hors d'oeuvres, salads, salad dressings, use of grains and legumes, production of charcuterie and display pieces. Emphasis placed on eye appeal, texture, color contrast, artistic touch, taste and processing. Includes study of production and storage of ingredients, sanitation and hygiene standards | Prerequisites: A grade of C or better in CUL150. | Occ | | L+L 2.0 4.0 4.0 | T |
| CUL255 | 2018 Fall | Advanced Garde Manger I - Salads and Sandwiches | | Theory and practice of creating simple and complex salads and sandwiches. Emphasis on use of multiple ingredients for hot and cold products, dressings, emulsified oils and vinegars, condiments, production methodologies, cost effective applications, plating and appropriate accompaniments and garnishes. | Prerequisites: A grade of C or better in CUL250 or industry equivalent. | | | L+L 2.0 2.0 2.0 | T |



Occ

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| CUL256 | 2018 Fall | Advanced Garde Manger II - Appetizers and Hors d'oeuvres | | Theory and practice of the key elements in production of appetizers and hors d'oeuvres. Emphasis on ingredient selection, flavor combinations, preparation methodologies, cost effective applications, displaying, garnishing and plating. | Prerequisites: A grade of C or better in CUL250 or industry equivalent. | | Occ | L+L 2.0 2.0 2.0 | T |
| CUL260 | 2022 Fall | Bakery II | | Focuses on theory and practice of operating a bakery or pastry shop in a hotel or restaurant kitchen. Provides experience in planning, ordering, scheduling and producing fine French and American pastries and baked goods. Emphasis placed on rapid, high-quality hand production and assembly of breads, desserts and garnishes. | Prerequisites: A grade of C or better in CUL160. | | | L+L 3.0 7.5 7.5 | T |
| CUL265 | 2018 Fall | Professional Baking I - Base Products and Sauces | | Theory and practice of the preparation of base products and sauces. Emphasis on creating finished products using basic components, creating sauces, and study of cooking methodologies, cost effective applications and plating techniques. | Prerequisites: A grade of C or better in CUL260 or industry equivalent. | Occ | Occ | L+L 2.0 2.0 2.0 | T |
| CUL266 | 2018 Fall | Professional Baking II - Breads and Rolls | | Theory and practice of cooking techniques and procedures in the preparation of breads and rolls. Emphasis on hands-on production of scratch recipes, understanding formulas, ratios and ingredient interaction for producing high quality breads and rolls, cooking methodologies, and cost-effective applications. Focus on production of yeast-leavened breads, quick breads, laminated dough, | Prerequisites: A grade of C or better in CUL260 or industry equivalent. | | Occ | L+L 2.0 2.0 2.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | unleavened dough and artisan style breads. | | | | | |
| CUL267 | 2018 Fall | Professional Baking III - Pastries, Pies and Cakes | | Theory and practice of the preparation of complex pastries, pies and cakes. Emphasis on cooking methodologies, high quality cost effective applications, and visually dramatic plating and garnishing techniques. | Prerequisites: A grade of C or better in CUL260 or industry equivalent. | | Occ | L+L 2.0 2.0 2.0 | T |
| CUL268 | 2018 Fall | Professional Baking IV - Decorative and Design Work | | Theory and practice of the varied uses and preparation of chocolate and sugar as decorative items. Emphasis on applications for advanced show work, cooking methodologies, cost effective applications for plated desserts and use as appropriate display pieces. | Prerequisites: A grade of C or better in CUL260 or industry equivalent. | | Occ | L+L 2.0 2.0 2.0 | T |
| CUL270 | 2018 Fall | Dining Room Operations II | | Theory and practice of operating a formal dining room, including set-up and clean-up, food and beverage service, proper etiquette and tableside food preparation. Emphasis on formal etiquette and service practices for a dining room including buffet and banquet set-up and managerial duties | Prerequisites: A grade of C or better in CUL170. | | | L+L 3.0 6.0 6.0 | T |
| CUL296WA | 2002 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to | Occ<br><br>Occ | | LAB 1.0 5.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | students major or career interest or with permission of Instructor. | | | | |
| CUL296WB | 2002 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor. | | Occ | LAB 2.0 10.0 0.0 | Z |
| CUL296WC | 2002 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor. | | Occ | LAB 3.0 15.0 0.0 | Z |
| CUL296WD | 2002 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to | | | LAB 4.0 20.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | COMMON COMPETENCY COURSE | students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor. | | | | |
| CUL298AA | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | Prerequisites: Permission of Program Director or Instructor. | | Occ | LAB 1.0 1.0 0.0 | Z |
| CUL298AB | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | Prerequisites: Permission of Program Director or Instructor. | | Occ | LAB 2.0 2.0 0.0 | Z |
| CUL298AC | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured | Prerequisites: Permission of Program Director or Instructor. | | Occ | LAB 3.0 3.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | | | | | |
| CWE198AA | 2018 Fall | Career/Work Experience | | Participation in a work experience, gaining on-the-job training, and/or exploring a career or field of choice. Helps students relate their education to the real work world. Resume writing and interviewing skills. Development of employability skills | Prerequisites: None. | | Acad | L+L 1.0 1.0 1.0 | T |
| CWE198AB | 2018 Fall | Career/Work Experience | | Participation in a work experience, gaining on-the-job training, and/or exploring a career or field of choice. Helps students relate their education to the real work world. Resume writing and interviewing skills. Development of employability skills | Prerequisites: None. | | Acad | L+L 2.0 2.0 2.0 | T |
| CWE198AC | 2018 Fall | Career/Work Experience | | Participation in a work experience, gaining on-the-job training, and/or exploring a career or field of choice. Helps students relate their education to the real work world. Resume writing and interviewing skills. Development of employability skills | Prerequisites: None. | | Acad | L+L 3.0 3.0 3.0 | T |
| CWE298AA | 2023 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured | Prerequisites: Permission of Program Director or Instructor. | | Acad | LAB 1.0 1.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | | | | | |
| CWE298AB | 2023 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | Prerequisites: Permission of Program Director or Instructor. | | Acad | LAB 2.0 2.0 0.0 | Z |
| CWE298AC | 2023 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | Prerequisites: Permission of Program Director or Instructor. | | Acad | LAB 3.0 3.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| DAE112 | 2020 Fall | Dental Assisting I | | Introduction to general dentistry, dental sciences, and basic preclinical dental assisting theory and skills. Topics include dental anatomy, recording oral conditions, infection control, patient preparation, communication, patient safety and comfort, emergency management, four-handed dentistry concepts and the use and maintenance of dental equipment, and development of professional behaviors. | Prerequisites: Acceptance into the Dental Assisting Program or permission of Program Director. | | Occ | LEC 7.0 7.0 7.0 LAB 0.0 10.0 10.0 | T |
| DAE124 | 2012 Fall | Dental Radiography | | Physics of radiography, theory of radiation production, exposure techniques, radiation protection, digital image production, film processing, mounting, and interpretation of radiographs. | Prerequisites: A grade of C or better in DAE156 or permission of Program Director. Corequisites: DAE131 or permission of Program Director. | | | LEC 2.0 2.0 2.0 | S |
| DAE131 | 2018 Fall | Dental Radiography Laboratory | | Radiation safety and infection control procedures for operator and patient. Image receptor placement, exposure, processing, mounting, and evaluation of dental radiographs. Operation and maintenance of x-ray and processing equipment. Interpretation of radiographic findings. | Prerequisites: A grade of C or better in DAE156 or permission of Program Director. Corequisites: DAE124 or permission of Program Director. | Occ | Occ | LAB 2.0 6.0 6.0 | T |
| DAE140 | 2012 Fall | Dental Issues Seminar | | Examination of legal and ethical responsibilities of dental team members. Review and analysis of clinical procedures in general and specialty practices. Includes professional and career development strategies and certification information and processes. | Prerequisites: A grade of C or better in DAE156 or permission of Program Director. Corequisites: (DAE224, DAE225, DAE226, DAE227, and DAE228) or permission of Program Director. | | Occ | LEC 1.0 1.0 1.0 | S |
| DAE156 | 2020 Fall | Dental Assisting II | | Intermediate dental assisting skills, with an emphasis in treatment provided in general | Prerequisites: A grade of C or better in | | | LEC 7.0 7.0 7.0 LAB 0.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | dentistry, including an introduction to dental diseases and their prevention, and preparing for and assisting in general dental restorative procedures, including the use of local anesthetics, dental materials, and pharmacological agents for procedures. Introduction to ethics and the legal aspects of dental practices. | DAE112 or permission of Program Director. | | | 10.0<br>10.0 | |
| DAE212 | 2020 Fall | Dental Assisting III | | Advanced dental assisting skills, with an emphasis in assisting for dental specialty procedures, including pediatrics, endodontics, periodontics, orthodontics, prosthodontics, and oral and maxillofacial surgery. Additional emphasis will be on expanded functions procedures performed by the dental assistant, as well as patient records management and pharmacology related to dental treatment procedures. | Prerequisites: A grade of C or better in DAE156 or permission of Program Director. | | Occ | LEC 2.0<br>2.0 2.0<br>LAB 0.0<br>2.0 2.0 | T |
| DAE224 | 2012 Fall | General Clinical Practice | | Placement of students in general practice dental facilities for supervised practical experience. | Prerequisites: A grade of C or better in DAE112 and DAE156, or Permission of Program Director. Corequisites: DAE140 or permission of Program Director. | | | LAB 1.0<br>5.0 0.0 | C |
| DAE225 | 2012 Fall | Pediatric Clinical Practice | | Placement of students in pediatric dental facilities for supervised practical experience. | Prerequisites: A grade of C or better in DAE112 and DAE156, or Permission of Program Director. Corequisites: DAE140 or permission of Program Director. | Occ | | LAB 1.0<br>5.0 0.0 | C |
| DAE226 | 2012 Fall | Periodontal Clinical Practice | | Placement of students in periodontal facilities for | Prerequisites: A grade of C or better in DAE112 and DAE156, | | | LAB 1.0<br>5.0 0.0 | C |



Occ

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | supervised practical experience. | or Permission of Program Director. Corequisites: DAE140 or permission of Program Director. | | | | |
| DAE227 | 2012 Fall | Orthodontic Clinical Practice | | Placement of students in orthodontic facilities for supervised practical experience. | Prerequisites: A grade of C or better in DAE112 and DAE156, or Permission of Program Director. Corequisites: DAE140 or permission of Program Director. | | | LAB 1.0 5.0 0.0 | C |
| DAE228 | 2012 Fall | Oral and Maxillofacial Surgery Clinical Practice | | Placement of students in oral and maxillofacial surgical facilities for supervised practical experience. | Prerequisites: A grade of C or better in DAE112 and DAE156, or Permission of Program Director. Corequisites: DAE140 or permission of Program Director. | Occ | | LAB 1.0 5.0 0.0 | C |
| DAE240 | 2018 Fall | Dental Radiographic Imaging | | Dental radiographic imaging. Diagnostic value of radiographs, image geometry, exposure techniques, processing of intra-oral and extra-oral radiographs covered. X-ray production, exposure factors, and image characteristics emphasized. Identification of image defects and corrective measures. Biological effects of x-radiation, radiation safety, digitized radiography, infection control procedures, and legal implications also covered. | Prerequisites: Admission to the Clinical Dental Assisting Program or permission of Department or Division. | Occ<br>Occ | | L+L 3.0 4.0 4.0 | T |
| DAE256 | 2020 Fall | Dental Assisting IV | | Advanced dental assisting sciences, with an emphasis in the recognition of oral pathologies, use of technology in dentistry, intermediate dental office management skills, and legal considerations for the practice of dentistry. Additional emphasis will be | Prerequisites: A grade of C or better in DAE212 or permission of Program Director. | | Occ | LEC 2.0 2.0 2.0 LAB 0.0 2.0 2.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | placed on coronal polishing and community oral health. | | | | | |
| DAE285 | 2014 Summer | Clinical Dental Assisting Seminar | | Overview of special topics in clinical dental assisting. Clinical internship evaluation included. Covers expanded functions, legal responsibilities and liabilities. One hundred (100) hours of designated work required. | Prerequisites: None. Corequisites: DAE290. | | Occ | L+L 2.0 2.0 0.0 | Z |
| DAE290 | 2018 Fall | Internship for Clinical Dental Assistants | | Perform clinical dental assisting skills within a dental practice setting. Practice safety and infection control, clinical and expanded dental assisting, patient management, laboratory skills, business assisting, equipment operation, and maintenance. Operate within practice standards, and record and evaluate internship experience. Two hundred (200) hours of designated work required. | Prerequisites: Permission of Program Director. Corequisites: DAE285. | | Occ | L+L 4.0 4.0 4.0 | T |
| DAE298AA | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment are made available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | Prerequisites: Permission of Program Director or Instructor. | | Occ | LAB 1.0 1.0 0.0 | Z |
| DAE298AB | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and | Prerequisites: Permission of Program Director or Instructor. | | Occ | LAB 2.0 2.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | study paralleled by professional expertise and guidance. Professional-type facilities and equipment are made available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | | | | | |
| DAE298AC | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment are made available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | Prerequisites: Permission of Program Director or Instructor. | | Occ | LAB 3.0 3.0 0.0 | Z |
| DAH100 | 2017 Fall | Introduction to Dance | | Overview of the field of dance focusing on origins, historical development, and cultural characteristics of the various styles of dance | Prerequisites: None. | Course Attribute(s): General Education Designation: Humanities, Arts and Design - [HU] | Acad | LEC 3.0 3.0 3.0 | S |
| DAH201 | 2023 Fall | Dance, Culture, and Global Contexts | | Introduction to the study of dance as culture in diverse global contexts. | Prerequisites: None. | | Acad | LEC 3.0 3.0 3.0 | S |
| DAH250 | 2015 Fall | Dance in Popular Culture | | Interdisciplinary approach investigating diverse cultural dance practices that have shaped American popular culture from the late 19th century to the present. Highlights issues of power, class, race, ethnicity, gender, age and sexuality. Emphasis is on revealing diverse cultural | Prerequisites: None. | Course Attribute(s): General Education Designation: Humanities, Arts and Design - [HU] General Education Designation: Cultural Diversity - [C] | Acad | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | influences in U.S. popular culture. | | | | | |
| DAH255 | 2015 Fall | Hip Hop: Arts, Aesthetic and Culture | | Selective survey and historico-cultural analysis of hip hop arts, aesthetics and culture organized around the founding elements of DJing, MCing, B-boy and B-girling, graffiti arts and knowledge. | Prerequisites: A grade of C or better in ENG101 or ENG107. | Course Attribute(s): General Education Designation: Cultural Diversity - [C] General Education Designation: Humanities, Arts and Design - [HU] General Education Designation: Literacy and Critical Inquiry - [L] | Acad | LEC 3.0 3.0 3.0 | S |
| DAN101AA | 2018 Fall | Social Dance: Ballroom | | Theory and practice of Ballroom dance. Development of movement quality and performance skills individually, with a partner or in a group setting. | Prerequisites: None. | DAN101AA may be repeated for a total of four (4) credits. | Occ | L+L 1.0 2.0 2.0 | T |
| DAN101AB | 2018 Fall | Social Dance: Swing | | Theory and practice of Swing dance. Development of movement quality and performance skills individually, with a partner or in a group setting. | Prerequisites: None. | DAN101AB may be repeated for a total of four (4) credits. | Occ | L+L 1.0 2.0 2.0 | T |
| DAN101AC | 2018 Fall | Social Dance: Latin | | Theory and practice of Latin dance. Development of movement quality and performance skills individually, with a partner or in a group setting. | Prerequisites: None. | DAN101AC may be repeated for a total of four (4) credits. | Occ | L+L 1.0 2.0 2.0 | T |
| DAN101AE | 2018 Fall | Social Dance: Tango | | Theory and practice of Tango dance. Development of movement quality and performance skills individually, with a partner or in a group setting. | Prerequisites: None. | DAN101AE may be repeated for a total of four (4) credits. | Occ | L+L 1.0 2.0 2.0 | T |
| DAN102 | 2023 Fall | Hip Hop I | | Theory and practice of Hip Hop dance at the beginning level. Development of movement quality and performance skills. | Prerequisites: None. | DAN102 may be repeated for credit. | Occ | L+L 1.0 3.0 3.0 | T |
| DAN102PA | 2023 Fall | Hip Hop Basic Level | | Theory and practice of Hip Hop dance at the basic level. Development of movement quality and improvisation skills. Dance training for personal skill development and interest. | Prerequisites: None. | DAN102PA may be repeated for credit. Course is not intended for dance majors. | Occ | L+L 0.5 1.5 1.5 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| DAN103 | 2023 Fall | Hip Hop II | | Theory and practice of Hip Hop dance at the advanced beginning level. Development of movement quality and performance skills. | Prerequisites: A grade of C or better in DAN102 or permission of Instructor. | DAN103 may be repeated for credit. | Occ | L+L 1.0 3.0 3.0 | T |
| DAN103PA | 2023 Fall | Hip Hop Beginning Level | | Theory and practice of Hip Hop dance at the beginning level. Development of movement quality and improvisation skills. Dance training for personal skill development and interest. | Prerequisites: A grade of C or better in DAN102 or DAN102PA or permission of Instructor. | DAN103PA may be repeated for credit. Course is not intended for dance majors. | Occ | L+L 0.5 1.5 1.5 | T |
| DAN104AA | 2018 Fall | Ballroom I | | Theory and practice of Ballroom dance at the beginning level. Development of movement quality and performance skills. | Prerequisites: None. | DAN104AA may be repeated for credit. | Occ | L+L 1.0 3.0 3.0 | T |
| DAN104AB | 2018 Fall | Ballroom II | | Theory and practice of Ballroom dance at the advanced beginning level. Development of movement quality and performance skills. | Prerequisites: A grade of C or better in DAN104AA or permission of Instructor. | DAN104AB may be repeated for credit. | Occ | L+L 1.0 3.0 3.0 | T |
| DAN106AA | 2018 Fall | Latin I | | Theory and practice of Latin dance at the beginning level. Development of movement quality and performance skills. | Prerequisites: None. | DAN106AA may be repeated for credit. | Occ | L+L 1.0 3.0 3.0 | T |
| DAN106AB | 2018 Fall | Latin II | | Theory and practice of Latin dance at the advanced beginning level. Development of movement quality and performance skills. | Prerequisites: A grade of C or better in DAN106AA or permission of Instructor. | DAN106AB can be repeated for credit. | Occ | L+L 1.0 3.0 3.0 | T |
| DAN108AA | 2018 Fall | Tango I | | Theory and practice of Tango dance at the beginning level. Development of movement quality and performance skills. | Prerequisites: None. | DAN108AA may be repeated for credit. | Occ | L+L 1.0 3.0 3.0 | T |
| DAN108AB | 2018 Fall | Tango II | | Theory and practice of Tango dance at the advanced beginning level. Development of movement quality and performance skills. | Prerequisites: A grade of C or better in DAN108AA or permission of Instructor. | DAN108AB may be repeated for credit. | Occ | L+L 1.0 3.0 3.0 | T |
| DAN115 | 2018 Fall | Dance Trends | | Theory and practice of current social dance trends. Development of movement quality and performance skills. | Prerequisites: None. | DAN115 may be repeated for credit. | Occ | L+L 1.0 3.0 3.0 | T |
| DAN120AB | 2018 Fall | World Dance: Flamenco | | Theory and practice of Flamenco. Development of | Prerequisites: None. | DAN120AB may be repeated for credit. | Occ | L+L 1.0 3.0 3.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | movement quality and performance skills, individually, with a partner or in a group setting. | | | | | |
| DAN120AE | 2018 Fall | World Dance: Middle Eastern Dance | | Theory and practice of Middle Eastern dance. Development of movement quality and performance skills. | Prerequisites: None. | DAN120AE may be repeated for credit. | Occ | L+L 1.0 3.0 3.0 | T |
| DAN120AK | 2018 Fall | World Dance: Capoeira | | Theory and practice of Capoeira. Development of movement quality and performance skills. | Prerequisites: None. | DAN120AK may be repeated for credit. | Occ | L+L 1.0 3.0 3.0 | T |
| DAN129 | 2018 Fall | Musical Theatre Dance I | | Introduction to the theory and practice of musical theatre dance at the beginning level. Development of movement quality and performance skills. | Prerequisites: None. | DAN129 may be repeated for credit. | Occ | L+L 1.0 3.0 3.0 | T |
| DAN130 | 2018 Fall | Musical Theatre Dance II | | Theory and practice of musical theatre dance at the advanced beginning level. Development of movement quality and performance skills. | Prerequisites: A grade of C or better in DAN129 or permission of Instructor. | DAN130 may be repeated for credit. | Occ | L+L 1.0 3.0 3.0 | T |
| DAN131 | 2018 Fall | Ballet I | | Introduction to the theory and practice of ballet at the beginning level. Development of movement quality and performance skills. | Prerequisites: None. | DAN131 may be repeated for credit. | Occ | L+L 1.0 3.0 3.0 | T |
| DAN131PA | 2018 Fall | Ballet Basic Level | | Dance training for personal skill development and interest. Introduction to the theory and practice of ballet at the basic level. | Prerequisites: None. Prior dance experience suggested but not required. | DAN131PA may be repeated for credit. Course is not intended for dance majors. | Occ | L+L 0.5 1.5 1.5 | T |
| DAN132 | 2018 Fall | Modern Dance I | | Introduction to the theory and practice of modern dance at the beginning level. Development of movement quality and performance skills. | Prerequisites: None. | DAN132 may be repeated for credit. | Occ | L+L 1.0 3.0 3.0 | T |
| DAN132PA | 2018 Fall | Modern Dance Basic Level | | Dance training for personal skill development and interest. Introduction to the theory and practice of modern dance at the basic level. | Prerequisites: None. Prior dance experience suggested but not required. | DAN132PA may be repeated for credit. Course is not intended for dance majors. | Occ | L+L 0.5 1.5 1.5 | T |
| DAN133 | 2018 Fall | Jazz Dance I | | Introduction to the theory and practice of jazz dance at the beginning level. Development | Prerequisites: None. Corequisites: DAN138 for dance majors. | DAN133 may be repeated for credit. | Occ | L+L 1.0 3.0 3.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | of movement quality and performance skills. | | | | | |
| DAN133PA | 2018 Fall | Jazz Basic Level | | Dance training for personal skill development and interest. Introduction to the theory and practice of jazz dance at the basic level. | Prerequisites: None. Prior dance experience suggested but not required. | DAN133PA may be repeated for credit. Course is not intended for dance majors. | Occ | L+L 0.5 1.5 1.5 | T |
| DAN134 | 2018 Fall | Ballet II | | Theory and practice of ballet at the advanced beginning level. Development of movement quality and performance skills. | Prerequisites: A grade of C or better in DAN131 or permission of Instructor. | DAN134 may be repeated for credit. | Occ | L+L 1.0 3.0 3.0 | T |
| DAN134PA | 2018 Fall | Ballet Beginning Level | | Dance training for personal skill development and interest. Theory and practice of ballet at the beginning level. | Prerequisites: A grade of C or better in DAN131PA or permission of Department or Division. | DAN134PA may be repeated for credit. Course is not intended for dance majors. | Occ | L+L 0.5 1.5 1.5 | T |
| DAN135 | 2018 Fall | Modern Dance II | | Theory and practice of modern dance at the advanced beginning level. Development of movement quality and performance skills. | Prerequisites: A grade of C or better in DAN132 or permission of Instructor. | DAN135 may be repeated for credit. | Occ | L+L 1.0 3.0 3.0 | T |
| DAN135PA | 2018 Fall | Modern Dance Beginning Level | | Dance training for personal skill development and interest. Theory and practice of modern dance at the beginning level. | Prerequisites: A grade of C or better in DAN132PA or permission of Department or Division. | DAN135PA may be repeated for credit. Course is not intended for dance majors. | Occ | L+L 0.5 1.5 1.5 | T |
| DAN136 | 2018 Fall | Jazz Dance II | | Theory and practice of jazz dance at the advanced beginning level. Development of movement quality and performance skills. | Prerequisites: A grade of C or better in DAN133 or permission of Instructor. | DAN136 may be repeated for credit. | Occ | L+L 1.0 3.0 3.0 | T |
| DAN136PA | 2018 Fall | Jazz Beginning Level | | Dance training for personal skill development and interest. Introduction to the theory and practice of jazz dance at the beginning level. Development of movement quality and performance skills. | Prerequisites: A grade of C or better in DAN133PA or permission of Department or Division. | DAN136PA may be repeated for credit. Course is not intended for dance majors. | Occ | L+L 0.5 1.5 1.5 | T |
| DAN140 | 2018 Fall | Tap Dance I | | An introduction to the theory and practice of tap dance. | Prerequisites: None. | DAN140 may be repeated for credit. | Occ | L+L 1.0 3.0 3.0 | T |
| DAN141 | 2018 Fall | Dance Workshop | | An intensive experience in the process of choreography, performance, and production elements. | Prerequisites: None. | DAN141 may be repeated for credit. | Occ | L+L 1.0 3.0 3.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| DAN145 | 2018 Fall | Tap Dance II | | Theory and practice of tap dance at an advanced beginning level. | Prerequisites: A grade of C or better in DAN140 or permission of Instructor. | DAN145 may be repeated for credit. | Occ | L+L 1.0 3.0 3.0 | T |
| DAN146 | 2018 Fall | Tap Dance Ensemble | | Introduction to the process and practice of dance performance, specific to the genre of tap dance. | Prerequisites: A grade of C or better in DAN140 or permission of Instructor. | DAN146 may be repeated for credit. | Occ | L+L 1.0 3.0 3.0 | T |
| DAN150 | 2018 Fall | Dance Performance I | | An introduction to the process and practice of dance performance. | Prerequisites: None. Corequisites: Any level of any of the following dance technique courses with a DAN prefix: ballet, modern, jazz, hip hop, tap, social, or world dance. | DAN150 may be repeated for credit. | Occ | L+L 1.0 3.0 3.0 | T |
| DAN155 | 2018 Fall | Dance Performance II | | Continued study of the process and practice of dance performance at advanced beginning level. | Prerequisites: A grade of C or better in DAN150 or permission of Instructor. Corequisites: Any level of any of the following dance technique courses with a DAN prefix: ballet, modern, jazz, hip hop, tap, social, or world dance. | DAN155 may be repeated for credit. | Occ | L+L 1.0 3.0 3.0 | T |
| DAN164 | 2018 Fall | Improvisation | | An introduction to and an exploration of basic improvisational dance skills. | Prerequisites: None. | DAN164 may be repeated for credit. | Occ | L+L 1.0 3.0 3.0 | T |
| DAN170 | 2020 Spring | Dance Kinesiology | | In-depth study of how the human body functions during dance movement both theoretically and practically. Attention given to correct body alignment and use while dancing, exploring each part of the body individually and analyzing the body as a whole. | Prerequisites: None. Corequisites: Any dance technique course. | | Occ | LEC 3.0 3.0 3.0 | S |
| DAN190 | 2024 Fall | Discovering Dance Careers | | An overview of the professional opportunities available in dance and dance related fields. | Prerequisites: None. | DAN190 may be repeated for credit. | Occ | LEC 1.0 1.0 1.0 | S |
| DAN191 | 2021 Spring | Viewing Dance | | This course emphasizes developing critical analysis | Prerequisites: None. | | Occ | L+L 1.0 1.0 1.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | skills in order to find effective and intelligent ways of viewing and discussing choreography, dance for film, and lighting design for dance. Students will view masterpiece examples of choreography, dance for film, and lighting design from notable artists during the 20th and 21st centuries spanning various genres of dance. | | | | | |
| DAN192 | 2021 Spring | Digital Music for Dancers | | Learn to use Digital Audio Workstation (DAW) software to edit and create music for dance performance and film as well as fix audio issues in music and sound. | Prerequisites: None. | | Occ | L+L 1.0 1.0 1.0 | T |
| DAN193 | 2021 Spring | Professional Promotion for Dancers | | An introduction to professional promotion for dancers. Design software and online applications will be used to manipulate photos and graphics in the creation of design projects for promotion. | Prerequisites: None. | | Occ | L+L 1.0 1.0 1.0 | T |
| DAN201AA | 2018 Fall | Special Topics: Dance | | Exploration of current topics, issues and activities related to one or more aspects of dance. | Prerequisites: Permission of Instructor. | Designed to offer special topics and/or specialized training for students in dance. Includes activities for portfolio enhancement. | Occ | L+L 1.0 1.0 1.0 | T |
| DAN201AB | 2018 Fall | Special Topics: Dance | | Exploration of current topics, issues and activities related to one or more aspects of dance. | Prerequisites: Permission of Instructor. | Designed to offer special topics and/or specialized training for students in dance. Includes activities for portfolio enhancement | Occ | L+L 2.0 2.0 2.0 | T |
| DAN201AC | 2018 Fall | Special Topics: Dance | | Exploration of current topics, issues and activities related to one or more aspects of dance. | Prerequisites: Permission of Instructor. | Designed to offer special topics and/or specialized training for students in dance. Includes activities for portfolio enhancement | Occ | L+L 3.0 3.0 3.0 | T |
| DAN202 | 2023 Fall | Hip Hop III | | Theory and practice of Hip Hop dance at the beginning intermediate level. Development of movement quality and performance skills. | Prerequisites: A grade of C or better in DAN103 or permission of Instructor. | DAN202 may be repeated for credit. | Occ | L+L 1.0 3.0 3.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| DAN202PA | 2023 Fall | Hip Hop Intermediate Level | | Theory and practice of Hip Hop dance at the intermediate level. Development of movement quality and improvisation skills. Dance training for personal skill development and interest. | Prerequisites: A grade of C or better in DAN103, or DAN103PA, or permission of Instructor. | DAN202PA may be repeated for credit. Course is not intended for dance majors. | Occ | L+L 0.5 1.5 1.5 | T |
| DAN203 | 2023 Fall | Hip Hop IV | | Theory and practice of Hip Hop dance at the intermediate level. Development of movement quality and performance skills. | Prerequisites: A grade of C or better in DAN202 or permission of Instructor. | DAN203 may be repeated for credit. | Occ | L+L 1.0 3.0 3.0 | T |
| DAN203PA | 2023 Fall | Hip Hop Intermediate Advanced Level | | Theory and practice of Hip Hop dance at the intermediate advanced level. Development of movement quality and improvisation skills. Dance training for personal skill development and interest. | Prerequisites: A grade of C or better in DAN202, or DAN202PA, or permission of Instructor. | DAN203PA may be repeated for credit. Course is not intended for dance majors. | Occ | L+L 0.5 1.5 1.5 | T |
| DAN210 | 2018 Fall | Dance Production I | | Introduction to the elements of pre-production and production, including but not limited to production organization, production management, lighting design, and sound design as they relate to the art of dance. | Prerequisites: None. | | Occ | L+L 3.0 3.0 3.0 | T |
| DAN220 | 2018 Fall | Dance Career Preparation | | This course provides foundational skills for employment in the field of dance including career research; development of promotional materials; interview and audition preparation; and entrepreneurial strategies for achieving educational and career goals. | Prerequisites: A grade of C or better in ENG101 or permission of Instructor. | | Occ | L+L 3.0 3.0 3.0 | T |
| DAN221 | 2016 Summer | Rhythmic Awareness I | | Exploration of rhythm in dance performance, choreography and pedagogy. Emphasis on the basic understanding of rhythm and cultivating awareness of rhythm in everyday life. | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| DAN229 | 2018 Fall | Musical Theatre Dance III | | Theory and practice of musical theatre dance at the beginning intermediate level. Development of movement quality and performance skills. | Prerequisites: A grade of C or better in DAN130 or permission of Instructor. | DAN229 may be repeated for credit. | Occ | L+L 1.0 3.0 3.0 | T |
| DAN230 | 2018 Fall | Musical Theatre Dance IV | | Theory and practice of musical theatre dance at the intermediate level. Development of movement quality and performance skills. | Prerequisites: A grade of C or better in DAN229 or permission of Instructor. | DAN230 may be repeated for credit. | Occ | L+L 1.0 3.0 3.0 | T |
| DAN231 | 2018 Fall | Ballet III | | Theory and practice of ballet at the beginning intermediate level. Development of movement quality and performance skills. | Prerequisites: A grade of C or better in DAN134 or permission of Instructor. | DAN231 may be repeated for credit. | Occ | L+L 1.0 3.0 3.0 | T |
| DAN231AA | 2018 Fall | Ballet III: Intensive | | Theory and intensive practice of ballet at the beginning intermediate level. Development of movement quality and performance skills. | Prerequisites: A grade of C or better in DAN134 or permission of Instructor. | DAN231AA may be repeated for credit. | Occ | L+L 2.0 5.0 5.0 | T |
| DAN231PA | 2018 Fall | Ballet Intermediate Level | | Dance training for personal skill development and interest. Theory and practice of ballet at the intermediate level. | Prerequisites: A grade of C or better in DAN134PA or permission of Department or Division. | DAN231PA may be repeated for credit. Course is not intended for dance majors. | Occ | L+L 0.5 1.5 1.5 | T |
| DAN232 | 2018 Fall | Modern Dance III | | Theory and practice of modern dance at the beginning intermediate level. Development of movement quality and performance skills. | Prerequisites: A grade of C or better in DAN135 or permission of Instructor. | DAN232 may be repeated for credit. | Occ | L+L 1.0 3.0 3.0 | T |
| DAN232AA | 2018 Fall | Modern Dance III: Intensive | | Theory and intensive practice of modern dance at the beginning intermediate level. Development of movement quality and performance skills. | Prerequisites: A grade of C or better in DAN135 or permission of Instructor. | DAN232AA may be repeated for credit. | Occ | L+L 2.0 5.0 5.0 | T |
| DAN232PA | 2018 Fall | Modern Dance Intermediate Level | | Dance training for personal skill development and interest. Theory and practice of modern dance at the intermediate level. | Prerequisites: A grade of C or better in DAN135PA or permission of Department or Division. | DAN232PA may be repeated for credit. Course is not intended for dance majors. | Occ | L+L 0.5 1.5 1.5 | T |
| DAN233 | 2018 Fall | Jazz Dance III | | Theory and practice of jazz dance at the beginning intermediate level. Development of movement quality and performance skills. | Prerequisites: A grade of C or better in DAN136 or permission of Instructor. | DAN233 may be repeated for credit. | Occ | L+L 1.0 3.0 3.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| DAN233AA | 2018 Fall | Jazz Dance III: Intensive | | Theory and intensive practice of jazz dance at the beginning intermediate level. Development of movement quality and performance skills. | Prerequisites: A grade of C or better in DAN136 or permission of Instructor. | DAN233AA may be repeated for credit. | Occ | L+L 2.0 5.0 5.0 | T |
| DAN233PA | 2018 Fall | Jazz Intermediate Level | | Dance training for personal skill development and interest. Introduction to the theory and practice of jazz dance at the intermediate level. | Prerequisites: A grade of C or better in DAN136PA or permission of Department or Division. | DAN233PA may be repeated for credit. Course is not intended for dance majors. | Occ | L+L 0.5 1.5 1.5 | T |
| DAN234 | 2018 Fall | Ballet IV | | Theory and practice of ballet at the intermediate level. Development of movement quality and performance skills. | Prerequisites: A grade of C or better in DAN231 or permission of Instructor. | DAN234 may be repeated for credit. | Occ | L+L 1.0 3.0 3.0 | T |
| DAN234AA | 2018 Fall | Ballet IV: Intensive | | Theory and intensive practice of ballet at the advanced intermediate level. Development of movement quality and performance skills. | Prerequisites: A grade of C or better in DAN231AA or permission of Instructor. | DAN234AA may be repeated for credit. | Occ | L+L 2.0 5.0 5.0 | T |
| DAN234PA | 2018 Fall | Ballet Advanced Level | | Dance training for personal skill development and interest. Theory and practice of ballet at the advanced level. | Prerequisites: A grade of C or better in DAN231PA or permission of Department or Division. | DAN234PA may be repeated for credit. Course is not intended for dance majors. | Occ | L+L 0.5 1.5 1.5 | T |
| DAN235 | 2018 Fall | Modern Dance IV | | Theory and practice of modern dance at the intermediate level. Development of movement quality and performance skills. | Prerequisites: A grade of C or better in DAN232 or permission of Instructor. | DAN235 may be repeated for credit. | Occ | L+L 1.0 3.0 3.0 | T |
| DAN235AA | 2018 Fall | Modern Dance IV: Intensive | | Theory and intensive practice of modern dance at the advanced intermediate level. Development of movement quality and performance skills. | Prerequisites: A grade of C or better in DAN232AA or permission of Instructor. | DAN235AA may be repeated for credit. | Occ | L+L 2.0 5.0 5.0 | T |
| DAN235PA | 2018 Fall | Modern Dance Advanced Level | | Dance training for personal development and interest. Theory and practice of modern dance at the advanced level. Development of movement quality and performance skills. | Prerequisites: A grade of C or better in DAN232PA or permission of Department or Division. | DAN235PA may be repeated for credit. Course is not intended for dance majors. | Occ | L+L 0.5 1.5 1.5 | T |
| DAN236 | 2018 Fall | Jazz Dance IV | | Theory and practice of jazz dance at the intermediate level. Development of movement quality and performance skills. | Prerequisites: A grade of C or better in DAN233 or permission of Instructor. | DAN236 may be repeated for credit. | Occ | L+L 1.0 3.0 3.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| DAN236AA | 2018 Fall | Jazz Dance IV: Intensive | | Theory and intensive practice of jazz dance at the advanced intermediate level. Development of movement quality and performance skills. | Prerequisites: A grade of C or better in DAN233AA or permission of Instructor. | DAN236AA may be repeated for credit. | Occ | L+L 2.0 5.0 5.0 | T |
| DAN236PA | 2018 Fall | Jazz Advanced Level | | Dance training for personal skill development and interest. Introduction to the theory and practice of jazz dance at the advanced level. | Prerequisites: A grade of C or better in DAN233PA or permission of Department or Division. | DAN236PA may be repeated for credit. Course is not intended for dance majors. | Occ | L+L 0.5 1.5 1.5 | T |
| DAN237 | 2018 Fall | Ballet Pointe I | | An introduction to the theory and practice of pointe work at the beginning level. Development of strength and movement quality. | Prerequisites: A grade of C or better in DAN134 or permission of Instructor. Corequisites: DAN231 or DAN234. | DAN237 may be repeated for credit. | Occ | L+L 1.0 1.0 1.0 | T |
| DAN240 | 2018 Fall | Tap Dance III | | Theory and practice of tap dance at a beginning intermediate level. | Prerequisites: A grade of C or better in DAN145 or permission of Instructor. | DAN240 may be repeated for credit. | Occ | L+L 1.0 3.0 3.0 | T |
| DAN245 | 2018 Fall | Tap Dance IV | | Theory and practice of tap dance at an intermediate level. | Prerequisites: A grade of C or better in DAN240 or permission of Instructor. | DAN245 may be repeated for credit. | Occ | L+L 1.0 3.0 3.0 | T |
| DAN250 | 2018 Fall | Dance Performance III | | Continued study of the process and practice of dance performance at beginning intermediate level. | Prerequisites: A grade of C or better in DAN155 or permission of Instructor. Corequisites: Any level of any of the following dance technique courses with a DAN prefix: ballet, modern, jazz, hip hop, tap, social, or world dance. | DAN250 may be repeated for credit. | Occ | L+L 1.0 3.0 3.0 | T |
| DAN255 | 2018 Fall | Dance Performance IV | | Continued study of the process and practice of dance performance at the intermediate level. | Prerequisites: A grade of C or better in DAN250 or permission of Instructor. Corequisites: Any level of any of the following dance technique courses with a DAN prefix: ballet, modern, jazz, hip hop, tap, social, or world dance. | DAN255 may be repeated for credit. | Occ | L+L 1.0 3.0 3.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| DAN264 | 2018 Fall | Choreography I | | Study of basic dance choreography to include construction of a phrase, structure and form in a composition, and the basic elements of time, space and energy | Prerequisites: None. | | Occ | L+L 3.0 3.0 3.0 | T |
| DAN265 | 2018 Fall | Choreography II | | Exploration of choreography at the intermediate level. Experimentation with the various approaches to creative practice as established by 20th and 21st century artists. | Prerequisites: A grade of C or better in DAN264 or permission of Instructor. | | Occ | L+L 3.0 3.0 3.0 | T |
| DAN272 | 2020 Fall | Dance Technology | | Survey of the expanding field of technology as it pertains to the study and performance of dance. | Prerequisites: None. | | Occ | L+L 3.0 3.0 3.0 | T |
| DAN275 | 2023 Fall | Choreography for Film and Video | | Introduction to creating choreography uniquely for screen medium, emphasizing relationship between choreography, work of the camera, and the editing in maintaining the three dimensional qualities of movement when transferred to the two dimensional space of the screen. | Prerequisites: None. DAN264 recommended but not required. | | | LEC 3.0 3.0 3.0 | S |
| DAN280 | 2023 Fall | Dance Practicum | | A culmination of coursework for the dance major requiring completion of an extended choreographic work from conception to performance. Also requires a final evaluative paper on the successes and challenges encountered throughout the project. | Prerequisites: Permission of Instructor. | DAN280 may be repeated for credit.<br>Occ | Occ | L+L 2.0 3.0 3.0 | T |
| DAN282AA | 2016 Summer | Service-Learning Experience in Dance | | Unpaid Service-Learning (SL) experience, completed with approved community partner. | Prerequisites: Permission of Instructor. | DAN282AA may be repeated for a total of six (6) credit hours. Standard grading available according to procedures outlined in catalog. | Occ | LAB 1.0 1.0 0.0 | L |
| DAN282AB | 2016 Summer | Service-Learning Experience in Dance | | Unpaid Service-Learning (SL) experience, completed with approved community partner. | Prerequisites: Permission of Instructor. | DAN282AB may be repeated for a total of six (6) credit hours. Standard grading available | Occ | LAB 2.0 2.0 0.0 | L |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | according to procedures outlined in catalog. | | | |
| DAN282AC | 2016 Summer | Service-Learning Experience in Dance | | Unpaid Service-Learning (SL) experience, completed with approved community partner. | Prerequisites: Permission of Instructor. | DAN282AC may be repeated for a total of six (6) credit hours. Standard grading available according to procedures outlined in catalog. | Occ | LAB 3.0 3.0 0.0 | L |
| DAN290AA | 2018 Fall | Dance Conservatory I | | An intensive course focusing on the theory and practice of dance technique including, but not limited to, ballet, modern dance, modern jazz, pilates, yoga and dance performance at the beginning level. Study of repertory and development of movement quality and performance skills. Includes an informal public showing of dance technique and performance skills. | Prerequisites: None. | DAN290AA may be repeated for a total of three (3) credit hours. | Occ | L+L 1.0 3.0 3.0 | T |
| DAN290AB | 2018 Fall | Dance Conservatory I | | An intensive course focusing on the theory and practice of dance technique including, but not limited to, ballet, modern dance, modern jazz, pilates, yoga and dance performance at the beginning level. Study of repertory and development of movement quality and performance skills. Includes an informal public showing of dance technique and performance skills. | Prerequisites: None. | DAN290AB may be repeated for a total of six (6) credit hours. | Occ | L+L 2.0 6.0 6.0 | T |
| DAN290AC | 2018 Fall | Dance Conservatory I | | An intensive course focusing on the theory and practice of dance technique including, but not limited to, ballet, modern dance, modern jazz, pilates, yoga and dance performance at the beginning level. Study of repertory and development of movement quality and performance skills. Includes an informal public showing of dance technique and performance skills. | Prerequisites: None. | DAN290AC may be repeated for a total of nine (9) credit hours. | Occ | L+L 3.0 9.0 9.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| DAN293 | 2016 Summer | Teaching Dance in Elementary Education | | Introduction to theories and methods of teaching dance and movement in the elementary school setting. Includes planning, facilitating, and assessing dance and movement experiences for grades K-6. | Prerequisites: A grade of C or better in (BIO160, DAN231, DAN232, DAN233 and DAN264) or permission of Instructor. | | Occ | LEC 3.0 3.0 3.0 | S |
| DAN294 | 2016 Summer | Teaching Dance In Secondary Education | | Introduction to the theories and methods of teaching dance and movement in the secondary school setting. Includes planning, facilitating, and assessing dance and movement experiences for grades 7-12. | Prerequisites: A grade of C or better in (BIO160, DAN231, DAN232, DAN233 and DAN264) or permission of Instructor. | | Occ | LEC 3.0 3.0 3.0 | S |
| DAN298AA | 2023 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. | Prerequisites: Permission of Program Director or Instructor. | DAN298AA may be repeated for credit. | Occ | LAB 1.0 1.0 0.0 | Z |
| DAN298AB | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student | Prerequisites: Permission of Program Director or Instructor. | | Occ | LAB 2.0 2.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | development. COMMON COMPETENCY COURSE | | | | | |
| DAN298AC | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | Prerequisites: Permission of Program Director or Instructor. | | Occ | LAB 3.0 3.0 0.0 | Z |
| DFT105AA | 2018 Fall | Computer Aided Drafting I: AutoCAD | | Industrial use of AUTOCAD equipment (hardware and software) in the areas of mechanical, electronic and construction drawings | Prerequisites: None. | Course Attribute(s): General Education Designation: Computer/Stats/Quantitative Apps - [CS] in combination with: CSC100 or CSC100AA or CSC100AB. | Occ | L+L 3.0 6.0 6.0 | T |
| DFT106 | 1996 Fall | Algebra and Graphs for Design Technology | | Algebraic principles and applications used in the design trades. Additional topics in the use of rectangular coordinates. | Prerequisites: A grade of C or better in MAT092 or equivalent or 1 year of high school algebra or permission of Department or Division. | | | LEC 3.0 3.0 3.0 | S |
| DFT107 | 1992 Fall | Trigonometry and Analytic Geometry for Design Technology | | An introduction to plane trigonometry and plane and solid geometry with practical applications to the field of design drafting. Problems in the analysis of force, stress, and vectors as well as primary geometric considerations | Prerequisites: A grade of C or better in DFT106 or equivalent. | Occ | | LEC 3.0 3.0 3.0 | S |
| DFT110 | 2018 Fall | Introduction to Drafting | | Fundamentals of drafting including lettering, basic drawing concepts, geometric construction and multiview projection. | Prerequisites: None. | | Occ | L+L 3.0 6.0 6.0 | T |
| DFT111 | 2018 Fall | Intermediate Drafting | | Dimensioning and tolerancing, sectional views and auxiliary views. | Prerequisites: A grade of C or better in | Occ | | L+L 3.0 6.0 6.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | DFT105AA, or DFT110, or equivalent. | | | | |
| DFT112 | 2018 Fall | Advanced Drafting | | Detail and assembly drawings, dimensioning and tolerancing per current manufacturing standards. | Prerequisites: A grade of C or better in (DFT111 and DFT254AA) or equivalent. | | Occ | L+L 3.0 6.0 6.0 | T |
| DFT114 | 1999 Summer I | Machine Trades Blueprint Reading | | Analysis and interpretation of technical drawings, common to manufacturing and the machine trades | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| DFT115 | 2020 Fall | Geometric Dimensioning and Tolerancing | | Principles and application of the latest techniques in geometric dimensioning and tolerancing in accordance with current American Society of Mechanical Engineers (ASME) Y14.5M. Recommended for all manufacturing personnel who read or produce engineering drawings related to contracts with the U.S. Government. | Prerequisites: A grade of C or better in DFT110 or Corequisites: DFT110 or permission of Department or Division. | | | LEC 3.0 3.0 3.0 | S |
| DFT126 | 1994 Fall | Building Trades Blueprint Reading | | Analysis and interpretation of technical drawings common to the construction industry and building trades | Prerequisites: None. | Occ | Occ | LEC 3.0 3.0 3.0 | S |
| DFT254AA | 2018 Fall | Computer Aided Drafting II: AutoCAD | | Advanced AutoCAD techniques in constructing three-dimensional objects and symbols, dimensioning and text; advanced techniques for projection, rotation, and translation of objects; advanced plotter use. | Prerequisites: A grade of C or better in DFT105AA or equivalent or permission of Department or Division. | | | L+L 3.0 6.0 6.0 | T |
| DFT255 | 2020 Fall | 3D Printing/Additive Manufacturing | | Rapidly advancing additive manufacturing (AM) technologies, often called 3D printing, provide us a direct way of converting digital data into physical objects. Additive manufacturing enables the building of customized parts previously impossible to fabricate. Design for additive manufacturing teaches | Prerequisites: A grade of C or better in DFT254AA or or permission of Department or Division. | Occ | | L+L 4.0 4.0 4.0 | T |



Occ

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | background, terminology, fundamentals designing for additive manufacturing, and current AM technology as well as advantages and limitations of 3D printing, materials, and post-processing. Students will learn and apply technique through lab activities, machine operation and maintenance, part design and analysis, adapting stereolithography files, printing models, and post-processing. | | | | | |
| DFT296WA | 2002 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor. | | Occ | LAB 1.0 5.0 0.0 | Z |
| DFT296WB | 2002 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one | Occ | | LAB 2.0 10.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | class which is related to students major or career interest or with permission of Instructor. | | | | |
| DFT296WC | 2002 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor. | | Occ | LAB 3.0 15.0 0.0 | Z |
| DFT296WD | 2002 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor. | | Occ | LAB 4.0 20.0 0.0 | Z |
| DFT298AA | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by | Prerequisites: Permission of Program Director or Instructor. | | Occ | LAB 1.0 1.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | | | | | |
| DFT298AB | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | Prerequisites: Permission of Program Director or Instructor. | Occ | | LAB 2.0 2.0 0.0 | Z |
| DFT298AC | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | Prerequisites: Permission of Program Director or Instructor. | Occ | | LAB 3.0 3.0 0.0 | Z |
| DHE110 | 2021 Spring | Pharmacology | | Study of the principles of pharmacology and drugs affecting oral health and dental treatment. Topics | Prerequisites: Admission to the Dental Hygiene Program or permission of Instructor. | | | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | include drug interactions, oral manifestations, drugs used in dentistry and alternative medicine. | | | | | |
| DHE112 | 2021 Spring | Oral Pathology | | Identification, classification, etiology and treatment of lesions of the oral mucosa and atypical conditions of the oral cavity and supporting structures. Understanding of abnormal conditions to recognize the parameters of comprehensive dental hygiene care. Multimedia resources are used extensively for identification of oral lesions. | Prerequisites: Admission to the Dental Hygiene Program or permission of Instructor. | | Occ | LEC 3.0 3.0 3.0 | S |
| DHE115 | 2021 Fall | Emergency Medicine | | Introduction to recording and interpreting medical history. Additional topics include: recognition of signs and symptoms of medical emergencies, procedures and techniques introduced to prevent emergencies and management of emergency situations in the dental environment. | Prerequisites: Admission to the Dental Hygiene Program. | | Occ | LEC 2.0 2.0 2.0 | S |
| DHE117 | 2021 Fall | Dental Radiography | | Physics of radiography, theory of radiation production, exposure techniques, radiation protection, image processing, mounting, and interpretation of radiography. Course activities include multimedia resources. | Prerequisites: Admission to the Dental Hygiene Program or permission of Program Director. | | | LEC 2.0 2.0 2.0 | S |
| DHE119 | 2019 Fall | Head and Neck Anatomy | | Study of the structures of the head and neck relevant to dental hygiene. Topics include: osteology, musculature, vascular supply, lymph and glandular tissue, cranial nerves and routes of infection. Course activities include use of skulls, models and multimedia resources. | Prerequisites: Admission to the Dental Hygiene Program or permission of Instructor. | Occ | Occ | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| DHE120 | 2022 Fall | Pre-Clinical Dental Hygiene | | Introduction to the dental hygiene profession and the process of care. Infection control, patient assessment, preventive treatment and dental hygiene instrumentation are practiced. Students are introduced to self assessment skills and quality improvement. | Prerequisites: Admission to the Dental Hygiene Program or permission of Instructor. | | Occ | L+L 6.0 12.0 12.0 | T |
| DHE121 | 2022 Fall | Dental Anatomy, Embryology and Histology | | Includes the histology and embryology of oral tissues; developmental disturbances of the face, oral cavity, and related structures; tooth composition and morphology including anomalies; eruption patterns and occlusal evaluation. Use of skulls, models and multimedia resources also covered. | Prerequisites: Admission to the Dental Hygiene Program. | | Occ | L+L 2.0 3.0 3.0 | T |
| DHE125 | 2021 Fall | Dental Radiography Laboratory | | Radiation safety and infection control procedures for operator and patient. Image receptor placement, exposure, processing, mounting and evaluation of dental radiographs. Operation and maintenance of X-ray and processing equipment. Interpretation of radiographic findings. | A grade of C or better required in all Prerequisites. Prerequisites or Corequisites: (DHE117 and admission to the Dental Hygiene Program) or permission of Program Director. | | Occ | LAB 1.0 3.0 3.0 | T |
| DHE127 | 2019 Fall | Prevention of Dental Disease | | Introduction to preventive aids, agents, and coaching to help patients achieve optimum oral health, reduce incidence of disease, and minimize risk of oral injury. Instills critical thinking in etiologic agents, cariology, fluorides, sealants, nutrition, and their oral and systemic implications. | Prerequisites: Admission to the Dental Hygiene Program or permission of Instructor. | | Occ | LEC 3.0 3.0 3.0 | S |
| DHE132 | 2023 Fall | Dental Hygiene Theory I | | Study of the dental hygiene process of care with emphasis on assessment, planning and implementation. Topics | Prerequisites: A grade of C or better in (DHE120 and admission to the Dental | | | L+L 3.0 5.0 5.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | include instrumentation, adjunct dental hygiene services, instrument sharpening, computer technology, dental specialties and professional accountability. | Hygiene Program) or permission of Instructor. Corequisites: DHE133. | | | | |
| DHE133 | 2023 Fall | Dental Hygiene Clinic I | | Application of the dental hygiene process of care with emphasis on assessment, planning, and implementation. Introduction to evaluation of dental hygiene therapy. | Prerequisites: A grade of C or better in DHE120 and admission to the Dental Hygiene Program. Corequisites: DHE132 and current CPR card. | | | LAB 3.0 9.0 9.0 | T |
| DHE201 | 2021 Fall | Dental Materials | | Composition, properties and criteria for use of dental materials. Principles of manipulation of restorative, preventive, and laboratory dental materials. | Prerequisites: Admission to the Dental Hygiene Program or permission of Program Director/Chair. Corequisites: DHE202. | | Occ | LEC 2.0 2.0 2.0 | S |
| DHE202 | 2021 Fall | Dental Materials Laboratory | | Manipulate permanent and temporary restorative materials, impression materials/systems, cements, bases and liners. Fabricate mouth protectors, tooth whitening appliances and study models. Laboratory proficiency in margination of permanent restorative materials. | Prerequisites: Admission to the Dental Hygiene Program or permission of Program Director/Chair. Corequisites: DHE201. | Occ | Occ | LAB 1.0 3.0 3.0 | T |
| DHE212 | 2023 Fall | Dental Hygiene Theory II | | Study of the dental hygiene process of care with emphasis on comprehensive care planning, case presentation, and clinical decision making. Introduction to advanced periodontal instrumentation. | Prerequisites: A grade of C or better in DHE132 and DHE133 and admission to the Dental Hygiene Program. Corequisites: DHE213. | | Occ | L+L 2.0 3.0 3.0 | T |
| DHE213 | 2023 Fall | Dental Hygiene Clinic II | | Application of the dental hygiene process of care with emphasis on comprehensive care planning, case presentation, clinical decision making, advanced instrumentation and improved time utilization. | Prerequisites: A grade of C or better in DHE132 and DHE133 and admission to the Dental Hygiene Program. Corequisites: DHE212. | | Occ | LAB 5.0 15.0 15.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| DHE219 | 2021 Spring | Practice Management | | Integration of practice management concepts and comprehensive quality patient care in preparation for future collaborative practice between dental hygienists and dentists. Students are challenged with practice situations including productivity, conflict management, ethical and legal issues. | Prerequisites: Admission to the Dental Hygiene Program or permission of Instructor. | | Occ | LEC 2.0 2.0 2.0 | S |
| DHE225 | 2019 Fall | Periodontics | | Principles of periodontology; etiology, microbiology, pathogenesis, classification and characteristics of healthy and diseased periodontal tissues. Surgical treatment of periodontal disease and the effects of dental hygiene therapy, surgical techniques and maintenance therapy. Evaluation of the scientific literature and multi-media resources are used extensively. | Prerequisites: Admission to the Dental Hygiene Program or permission of Instructor. | | Occ | LEC 3.0 3.0 3.0 | S |
| DHE227 | 2019 Fall | Dental Anesthesia | | A comprehensive lecture and laboratory course providing concepts and techniques for the administration of local anesthetic agents and nitrous oxide. Experience gained in medical history review, electronic recordkeeping, patient management, and hands-on experience administering local anesthetics and nitrous oxide in a clinical setting. | Prerequisites: A grade of C or better in DHE119. | | Occ | LEC 2.0 2.0 2.0 LAB 0.0 3.0 3.0 | T |
| DHE229 | 2021 Spring | Community Oral Health | | An examination of methods used to assess the oral health status of the community and to plan, implement, finance and evaluate dental public health programs. Focus on community-based health promotion and disease | Prerequisites: Admission to the Dental Hygiene Program or permission of Instructor. | | Occ | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | prevention measures to improve the oral health of the population, as well as the characteristics of dental care delivery systems and the social, political, psychological and economic factors affecting utilization within the system. | | | | | |
| DHE232 | 2023 Fall | Dental Hygiene Theory III | | Study of the dental hygiene process of care with emphasis on the patient with special needs and advanced instrumentation. Students participate in field observations and present case documentations. | Prerequisites: A grade of C or better in (DHE212 and DHE213) and admission to the Dental Hygiene Program. Corequisites: DHE233. | | Occ | L+L 2.0 2.0 2.0 | T |
| DHE233 | 2023 Fall | Dental Hygiene Clinic III | | Application of the dental hygiene process of care with emphasis on diverse populations. Students prepare for clinical practice using self assessment, evaluation and critical thinking skills. | Prerequisites: A grade of C or better in (DHE212 and DHE213) and admission to the Dental Hygiene Program. Corequisites: DHE232. | | Occ | LAB 5.0 15.0 15.0 | T |
| DHE298AA | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | Prerequisites: Permission of Program Director or Instructor. | | Occ | LAB 1.0 1.0 0.0 | Z |
| DHE298AB | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and | Prerequisites: Permission of Program Director or Instructor. | | Occ | LAB 2.0 2.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | | | | | |
| DHE298AC | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | Prerequisites: Permission of Program Director or Instructor. | | Occ | LAB 3.0 3.0 0.0 | Z |
| DIE104 | 2019 Spring | Electrical for Diesel Engines I | | Introduces electrical principles and circuit theory through the operation, diagnostics and repair of batteries, starting and charging circuits. Concepts include magnetism, electrical circuits, DC electricity, electrical schematic reading, interpretation, and testing. | Prerequisites: None. | | Occ | L+L 3.0 4.0 4.0 | T |
| DIE106 | 2019 Spring | Mobile Hydraulics and Pneumatics | | The transmission of energy through hydraulic and pneumatic systems. Defines the function and operation of valves, cylinders, pumps, motors, accumulators, reservoirs, coolers, hoses, fluids, filters, seals and contamination control. Basic troubleshooting and schematic interpretation emphasized. | Prerequisites: None. | | Occ | L+L 3.0 4.0 4.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Pneumatic functions discussed. | | | | | |
| DIE108 | 2019 Spring | Heavy Duty Diesel PowerTrains | | Introduction to powertrain concepts and operation of basic components of the powertrain system. Basic powertrain maintenance industry practices and skills that include but not limited to pressure testing and adjustments. Clutch fill calibration and some component disassembly will be covered. | Prerequisites: None. | | Occ | L+L 3.0 4.0 4.0 | T |
| DIE112 | 2019 Spring | General Diesel Engines | | Introduction to diesel engine operation and related systems. Concepts include basic engine maintenance, engine tear-down, inspection, reassembly, and all necessary adjustments. | Prerequisites: None. | | Occ | L+L 3.0 4.0 4.0 | T |
| DIE296WA | 2002 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor. | | Occ | LAB 1.0 5.0 0.0 | Z |
| DIE296WB | 2002 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to | | | LAB 2.0 10.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | COMMON COMPETENCY COURSE | students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor. | | | | |
| DIE296WC | 2002 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor. | | Occ | LAB 3.0 15.0 0.0 | Z |
| DIE296WD | 2002 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or | Occ | | LAB 4.0 20.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | career interest or with permission of Instructor. | | | | |
| DIE298AA | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | Prerequisites: Permission of Program Director or Instructor. | | Occ | LAB 1.0 1.0 0.0 | Z |
| DIE298AB | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | Prerequisites: Permission of Program Director or Instructor. | | Occ | LAB 2.0 2.0 0.0 | Z |
| DIE298AC | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and | Prerequisites: Permission of Program Director or Instructor. | | Occ | LAB 3.0 3.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | | | | | |
| DMI220 | 2017 Spring | Sectional Anatomy | DMS220 ICE220 | Sectional human anatomy in the transverse, sagittal and coronal planes. Emphasis on the brain, neck, chest, abdomen and pelvic cavity. | Prerequisites: (BIO160 or BIO201) and (HCC145 or HCC146), or a graduate of a related medical program of study or currently registered as a technologist in radiography, nuclear medicine, radiation therapy or sonography OR Admission to the Medical Radiography Program or permission of Instructor. | | Occ | LEC 3.0 3.0 3.0 | S |
| DMI228 | 2012 Spring | Radiography Practicum VII | | Advanced imaging procedures. | Prerequisites: Permission of Instructor and acceptance by sponsoring clinical institution. | DMI228 may be repeated for a total of three (3) credit hours. | Occ | L+L 1.0 6.0 0.0 | C |
| DMS100 | 2010 Fall | Introduction to Diagnostic Medical Sonography | | Role of health care worker in diagnostic medical sonography. Job duties, responsibilities, working conditions and work environments in the inpatient and outpatient clinical settings. Overview of diagnostic and therapeutic procedures. Shadowing experience in diagnostic sonography department. | Prerequisites: None. | | Occ | LEC 0.5 0.5 0.5 | S |
| DMS101 | 2020 Fall | Patient Care in Diagnostic Sonography | | Safety procedures for the hospitalized patient. Transfer, moving and positioning techniques. Patent assessment methods and procedures. Protection of drains, tubes, intravenous lines, and infusion pumps. Gloving, gowning, and sterile procedures. Safe use and | Prerequisites: Admission to the Diagnostic Medical Sonography program or permission of Instructor. | | Occ | LAB 1.0 3.0 3.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | application of sonography equipment. Professional behavior and responsibility of the sonographer in the diagnostic imaging lab. | | | | | |
| DMS110 | 2021 Spring | Introduction to Diagnostic Sonography | | Use of ultrasound including medical applications. Job description including opportunities, licensure, use of sonography equipment, responsibilities of diagnostic medical sonographers in the workplace, and medical ethics. | Prerequisites: Admission to Diagnostic Medical Sonography program. | | Occ | LEC 3.0 3.0 3.0 | S |
| DMS110LL | 2018 Fall | Introduction to Diagnostic Sonography Laboratory, | | Use and maintenance of sonography equipment, and responsibilities of Diagnostic Medical Sonographers in the workplace. | Prerequisites: A grade of C or better in DMS110 or Corequisites: DMS110. | | | LAB 1.0 3.0 3.0 | T |
| DMS120 | 2023 Fall | Ultrasound Imaging: Abdominal Procedures I | | Ultrasound evaluation of upper abdominal organs. Normal and pathologic ultrasound appearances of the liver, gallbladder, pancreas, biliary tree, spleen, adrenal glands, kidneys, major vascular structures, and lymph nodes. | Prerequisites: Admission to Diagnostic Medical Sonography program. | Occ | Occ | LEC 3.0 3.0 3.0 | S |
| DMS120LL | 2018 Fall | Ultrasound Imaging: Abdominal Procedures I Laboratory | | Ultrasound evaluation of upper abdominal organs. Normal ultrasound appearances of the liver, gallbladder, pancreas, biliary tree, spleen, adrenal glands, kidneys, major vascular structures, small parts, and lymph nodes. | Prerequisites: A grade of C or better in DMS120 or Corequisites: DMS120. | | | LAB 1.0 3.0 3.0 | T |
| DMS121 | 2012 Fall | Ultrasound Imaging: Abdominal Procedures II | | Ultrasound evaluation of upper abdominal organs. Normal and pathologic ultrasound appearances of the liver, gallbladder, pancreas, biliary tree, spleen, adrenal glands, kidneys, major vascular structures, lymph nodes, and small parts. | Prerequisites: Admission to Diagnostic Medical Sonography program. | Occ | Occ | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| DMS130 | 2021 Spring | Ultrasound Imaging: OB/GYN Procedures | | Ultrasound evaluation of the female pelvis, reproductive system, and fetus. Diagnostic tests related to the ultrasound procedure. Normal and pathologic ultrasound appearances of the fetus, placenta, uterus, cervix, fallopian tubes, and ovaries. | Prerequisites: Admission to Diagnostic Medical Sonography program. | | Occ | LEC 3.0 3.0 3.0 | S |
| DMS130LL | 2021 Fall | Ultrasound Imaging: OB/GYN Procedures Laboratory | | Application of diagnostic concepts to evaluation of the pelvis, reproductive system, and fetus. Normal and pathologic ultrasound appearances of the fetus, placenta, uterus, cervix, fallopian tubes, ovaries, and male pelvis. | Prerequisites: None. Corequisites: DMS130 or permission of the Program Director. | | Occ | LAB 1.0 3.0 3.0 | T |
| DMS140 | 2010 Fall | Ultrasound Case Studies: Part I | | Medical terminology, anatomy, physical principles, and techniques for determining proper technical factors. Anatomical variants, normal, and pathological sonographic findings in diagnostic ultrasound case presentations. | Prerequisites: Admission to Diagnostic Medical Sonography program. | | Occ | LEC 2.0 2.0 2.0 | S |
| DMS145 | 2015 Fall | Clinical Pathology for Diagnostic Imaging | | Disease etiology and impact on the human body. Physiologic effects of disease on body systems. Role of Diagnostic Medical Imaging (DMI) modalities in the diagnosis and treatment of selected disease processes. DMI as part of the health care team. Cultural implications in the prevention and treatment of disease. | Prerequisites: Admission to Diagnostic Medical Sonography program. | | Occ | LEC 1.0 1.0 1.0 | S |
| DMS148 | 2017 Spring | Introduction to Musculoskeletal Sonographic Imaging | | Ultrasound terminology. Ethics. Tissue structure and physiology in imaging. Legal ramifications. Documentation and reporting. Billing and coding. Professional standards. Roles healthcare | Prerequisites: Admission to Diagnostic Medical Sonography program or permission of the Program Director. | | Occ | LEC 1.0 1.0 1.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | clinicians and relationships to Sonography. | | | | | |
| DMS150 | 2021 Spring | Sonographic Principles and Instrumentation I | | Sonographic principles and instrumentation necessary for the performance of diagnostic sonographic imaging and vascular examinations. Quality control materials and procedures. Biological effects of ultrasound energy. | Prerequisites: Admission to Diagnostic Medical Sonography program. | | Occ | LEC 3.0 3.0 3.0 | S |
| DMS150LL | 2018 Fall | Sonographic Principles and Instrumentation Laboratory | | Laboratory experience in support of DMS150. | Prerequisites: A grade of C or better in DMS150 or Corequisites: DMS150. | | | LAB 1.0 3.0 3.0 | T |
| DMS151 | 2015 Fall | Sonographic Principles and Instrumentation II | | Sonographic principles and instrumentation necessary for the performance of diagnostic sonographic examinations using Hemodynamics and Doppler imaging. Identifying and reducing image artifacts. Quality control materials and procedures. Biological effects of ultrasound energy. | Prerequisites: Admission to Diagnostic Medical Sonography program. | Occ | Occ | LEC 2.0 2.0 2.0 | S |
| DMS155 | 2019 Fall | Introduction to Clinical Care for Sonography | | Observation of correct hospital policies and procedures in clinical simulation. The job description, duties, and functions of the sonographer. Career opportunities in ultrasound. | Prerequisites: Admission to Diagnostic Medical Sonography program. | | Occ | LAB 1.0 5.0 0.0 | C |
| DMS161 | 2022 Summer | Clinical Practicum II-AA | | Technical and professional aspects of diagnostic ultrasound in a hospital or clinical setting at the beginner level. Hospital procedures and policies. Observation, assistance, and performance of clerical, patient care, and sonographic duties under strict supervision. | Prerequisites: Admission to Diagnostic Medical Sonography program. | | Occ | LAB 2.0 10.0 0.0 | C |
| DMS162 | 2022 Spring | Clinical Practicum II-AB | | Development of technical and professional aspects of diagnostic ultrasound in a hospital or clinical setting at the beginner level. Hospital | Prerequisites: Admission to Diagnostic Medical Sonography program. | | Occ | LAB 2.0 10.0 0.0 | C |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | procedures and policies. Continued observation, assistance and performance of clerical, patient care and sonographic duties under strict supervision. | | | | | |
| DMS171 | 2021 Spring | Clinical Practicum III-AA | | Technical and professional aspects of diagnostic ultrasound in a hospital or clinical setting at the advanced beginner level. Reinforcement and broadening of knowledge base related to hospital procedures and policies. Observation, assistance and performance of patient care and sonographic duties under moderate supervision. | Prerequisites: Admission to Diagnostic Medical Sonography program. | | Occ | LAB 2.0 10.0 0.0 | C |
| DMS172 | 2021 Spring | Clinical Practicum III-AB | | Continued technical and professional aspects of diagnostic ultrasound in a hospital or clinical setting at the advanced beginner level. Ongoing reinforcement and broadening of knowledge base related to hospital procedures and policies. Continued observation, assistance and performance of patient care and sonographic duties under moderate supervision. | Prerequisites: Admission to Diagnostic Medical Sonography program. | | Occ | LAB 2.0 10.0 0.0 | C |
| DMS210 | 2021 Spring | Concepts of Vascular Imaging | | Vascular physics and terminology. Application of imaging concepts to arterial, venous, and cerebrovascular ultrasound. Normal, abnormal and pathologic states of human vascular anatomy. Review and demonstration of selected scanning protocols to include extremity and cerebral vascular systems. | Prerequisites: Admission to Diagnostic Medical Sonography program. | | Occ | LEC 2.0 2.0 2.0 | S |
| DMS210LL | 2018 Fall | Concepts of Vascular Imaging Laboratory | | Application of diagnostic concepts to arterial, venous, | Prerequisites: A grade of C or better in | | | LAB 1.0 3.0 3.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | and cerebrovascular vasculature. Normal human vascular anatomy. Demonstration of selected scanning protocols to include extremity and visceral vascular systems. | DMS210 or Corequisites: DMS210. | | | | |
| DMS220 | 2017 Spring | Sectional Anatomy | DMI220 ICE220 | Sectional human anatomy in the transverse, sagittal and coronal planes. Emphasis on the brain, neck, chest, abdomen and pelvic cavity. | Prerequisites: (BIO160 or BIO201) and (HCC145 or HCC146), or a graduate of a related medical program of study or currently registered as a technologist in radiography, nuclear medicine, radiation therapy or sonography OR Admission to the Medical Radiography Program or permission of Instructor. | | Occ | LEC 3.0 3.0 3.0 | S |
| DMS225 | 2013 Fall | High Risk Obstetric/Gynecology Sonography | | Sonographic overview of the female reproductive system. High risk intervention and tests related to sonography. Normal and abnormal sonographic presentations of the uterus and fetus in pregnancy. | Prerequisites: Admission to Diagnostic Medical Sonography program. | | Occ | LEC 1.0 1.0 1.0 | S |
| DMS230 | 2010 Fall | Introduction to Echocardiography | | Anatomy and physiology of the heart. Normal, abnormal and pathologic states of cardiac anatomy as it relates to diagnostic sonography. Demonstration of scanning techniques in echocardiography. | Prerequisites: Admission to Diagnostic Medical Sonography program. | | Occ | LEC 1.0 1.0 1.0 | S |
| DMS235 | 2010 Fall | Ultrasound Breast Imaging | | Ultrasound imaging of the breast. Includes terminology, technique, physics and instrumentation. Breast anatomy, physical examination and procedure findings. Pathology and | Prerequisites: Admission to Diagnostic Medical Sonography program. | | Occ | LEC 1.0 1.0 1.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | correlation with other imaging modalities. | | | | | |
| DMS240 | 2010 Fall | Ultrasound Case Studies: Part II | | Medical terminology, anatomy, physical principles, and technology for determining proper technical factors. Anatomical variants, normal, and pathological sonographic findings in diagnostic ultrasound case presentations. | Prerequisites: Admission to Diagnostic Medical Sonography program. | | Occ | LEC 2.0 2.0 2.0 | S |
| DMS241 | 2010 Fall | Ultrasound Case Studies: Part III | | Medical terminology, anatomy, physical principles, and technology for determining proper technical factors. Anatomical variants, normal, and pathological sonographic findings in diagnostic ultrasound case presentations. | Prerequisites: Admission to Diagnostic Medical Sonography program. | | Occ | LEC 2.0 2.0 2.0 | S |
| DMS245 | 2010 Fall | Neurosonography | | Neuroanatomy and neurosonography of the brain and spinal cord. | Prerequisites: Admission to Diagnostic Medical Sonography program. | | Occ | LEC 1.0 1.0 1.0 | S |
| DMS250 | 2018 Fall | Musculoskeletal Sonography and Small Parts | | Normal sonographic human anatomy in sagittal, transverse, oblique, coronal planes. Emphasis on musculoskeletal imaging, and small parts. | Prerequisites: Admission to Diagnostic Medical Sonography program. | | Occ | L+L 2.0 2.0 2.0 | T |
| DMS252 | 2018 Fall | Musculoskeletal Procedures I | | Ultrasound terminology and physics. Anatomical variants, normal, and pathological sonographic findings in musculoskeletal diagnostic ultrasound of the upper extremity. | Prerequisites: Admission to Diagnostic Medical Sonography program or permission of the Program Director. | | Occ | L+L 4.0 6.0 6.0 | T |
| DMS254 | 2018 Fall | Musculoskeletal Procedures II | | Ultrasound terminology and physics. Anatomical variants, normal, and pathological sonographic findings in musculoskeletal diagnostic ultrasound of the lower extremity. | Prerequisites: Admission to Diagnostic Medical Sonography program or permission of the Program Director. | | Occ | L+L 4.0 6.0 6.0 | T |
| DMS255 | 2018 Summer | Pediatric Sonography | | Ultrasound imaging of the pediatric population. Includes | Prerequisites: Admission to Diagnostic | | | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | terminology, technique, physics and instrumentation. Embryology, anatomy, physical examination and procedure findings. Pathology and correlation with other imaging modalities. | Medical Sonography Program, or Registered Diagnostic Medical Sonographer (RDMS) credentialed with permission from Program Director. | | | | |
| DMS261 | 2021 Spring | Clinical Practicum IV-AA | | Technical and professional aspects of diagnostic ultrasound in a hospital or clinical setting at the intermediate level. Reinforcement and broadening of knowledge base related to hospital procedures and policies. Observation, assistance and performance of patient care and sonographic duties under limited supervision. | Prerequisites: Admission to Diagnostic Medical Sonography program. | | Occ | LAB 2.0 10.0 0.0 | C |
| DMS262 | 2021 Fall | Clinical Practicum IV-AB | | Development of technical and professional aspects of diagnostic ultrasound in a hospital or clinical setting at the intermediate level. Ongoing reinforcement and broadening of knowledge base related to hospital procedures and policies. Continued observation, assistance and performance of patient care and sonographic duties under limited supervision. | Prerequisites: Admission to Diagnostic Medical Sonography program. | | Occ | LAB 2.0 10.0 0.0 | C |
| DMS263 | 2017 Spring | Vascular Clinical Practicum I | | Technical and professional aspects of diagnostic vascular ultrasound in a hospital or clinical setting at the intermediate level. Reinforcement and broadening of knowledge base related to hospital procedures and policies. Observation, assistance and performance of patient care and vascular sonographic | Prerequisites: Admission to Diagnostic Medical Sonography program. | | Occ | LAB 2.0 10.0 0.0 | C |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | duties under limited supervision. | | | | | |
| DMS265 | 2017 Spring | Musculoskeletal Clinical Practicum | | Musculoskeletal Clinical Practicum of 240 hours in healthcare setting Ultrasound imaging instrumentation, protocol implementation and positioning techniques. Application of Ultrasound safety, quality control procedures and effective patient care and communication skills. | Prerequisites: Admission to Diagnostic Medical Sonography program or permission of the Program Director. | | Occ | LAB 4.0 24.0 0.0 | C |
| DMS267 | 2017 Spring | Musculoskeletal Case Studies | | Medical terminology, anatomy, physical principles, and technology for determining proper technical factors. Anatomical variants, normal, and pathological sonographic findings in musculoskeletal diagnostic ultrasound case presentations. | Prerequisites: Admission to Diagnostic Medical Sonography program or permission of the Program Director. | | Occ | LEC 1.0 1.0 1.0 | S |
| DMS270 | 2022 Summer | Clinical Practicum V-AA | | Technical and professional aspects of diagnostic ultrasound in a hospital or clinical setting at the advanced level. Clinical diagnostic experiences in routine/high risk obstetrics, pelvic, vascular, abdominal and small parts scanning. | Prerequisites: Admission to Diagnostic Medical Sonography program. | | Occ | LAB 2.0 10.0 0.0 | C |
| DMS271 | 2021 Spring | Clinical Practicum V-AB | | Development of technical and professional aspects of diagnostic ultrasound in a hospital or clinical setting at the advanced level. Continued opportunity for clinical diagnostic experiences in routine/high risk obstetrics, pelvic, vascular, abdominal and small parts scanning. Focus on progression to independent level of function. | Prerequisites: Admission to Diagnostic Medical Sonography program. | | Occ | LAB 2.0 10.0 0.0 | C |
| DMS272 | 2021 Spring | Clinical Practicum V-AC | | Culminating clinical practice course with application of theoretical and practical | Prerequisites: Admission to Diagnostic | | | LAB 2.0 10.0 0.0 | C |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | concepts related to diagnostic ultrasound. Emphasis on independent performance of all clinical diagnostic procedures including routine/high risk obstetrics, pelvic, vascular, abdominal and small parts scanning. | Medical Sonography program. | | | | |
| DMS273 | 2017 Spring | Vascular Clinical Practicum II | | Development of technical and professional aspects of diagnostic vascular ultrasound in a hospital or clinical setting at the advanced level. Continued opportunity for clinical diagnostic experiences in routine/complex vascular scanning. Focus on progression to independent level of function. | Prerequisites: Admission to Diagnostic Medical Sonography program. | | Occ | LAB 2.0 10.0 0.0 | C |
| DMS281 | 2022 Spring | Ultrasound Registry Preparation Seminar: Physics and Instrumentation | | Intensive review of major content measured in the American Registry for Diagnostic Medical Sonography certification examination. Physics and instrumentation in ultrasound technology. | Prerequisites: Admission into the Diagnostic Medical Sonography program or permission of the Program Director. | | Occ | LEC 1.0 1.0 1.0 | S |
| DMS282 | 2022 Spring | Ultrasound Registry Preparation Seminar: Abdominal and Small Parts Imaging | | Intensive review of major content measured in the American Registry for Diagnostic Medical Sonography certification examination. Specialties of abdominal and small parts imaging. | Prerequisites: Admission into the Diagnostic Medical Sonography program or permission of the Program Director. | | Occ | LEC 1.0 1.0 1.0 | S |
| DMS283 | 2022 Spring | Ultrasound Registry Preparation Seminar: Obstetrics and Gynecology | | Intensive review of major content measured in the American Registry for Diagnostic Medical Sonography certification examination for obstetrics and gynecology. | Prerequisites: Admission into the Diagnostic Medical Sonography program or permission of the Program Director. | | Occ | LEC 1.0 1.0 1.0 | S |
| DMS284 | 2022 Spring | Ultrasound Registry Preparation: Vascular Imaging | | Anatomy and physiology of the vascular system. Testing parameters and methods for vascular examinations. Scan | Prerequisites: Admission into the Diagnostic Medical Sonography program or | | Occ | LEC 1.0 1.0 1.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | protocol for sonographic evaluation of head and neck, extremities, upper abdomen and pelvis vasculature. Interpret scans and special cases. | permission of the Program Director. | | | | |
| DMS285 | 2011 Fall | Intermediate Vascular Technology | | Sonographic evaluation of the upper and lower peripheral vascular system and the cerebrovascular system. Normal and pathologic sonographic imaging and Doppler evaluation of the venous, arterial systems of the upper and lower extremities, and intra and extracranial vessels. | Prerequisites: Admission to Diagnostic Medical Sonography program. | | Occ | LEC 2.0 2.0 2.0 | S |
| DMS286 | 2015 Spring | Advanced Vascular Technology | | Vascular evaluation of the abdominal vicera and small parts. Normal and pathologic sonographic imaging and Doppler evaluation of the venous and arterial systems of the abdominal organs and small body parts. Capabilities, limitations, protocols and techniques required for diagnosis of the systemic, hepatoportal, and collateral systems, and extremities. Preoperative mapping of the radial, mammary, and epigastric arteries. | Prerequisites: Admission to Diagnostic Medical Sonography program. | | Occ | LEC 2.0 2.0 2.0 | S |
| DMS286LL | 2018 Fall | Advanced Vascular Technology Laboratory | | Laboratory experience in support of DMS286. | Prerequisites: A grade of C or better in DMS286 or Corequisites: DMS286. | | | LAB 1.0 3.0 3.0 | T |
| DMS290 | 2010 Fall | Advanced Medical Ultrasound Procedures | | Presentation of advanced topics in sonography including state of the art equipment. Superficial organs, heart and vessels, neurosonography, musculoskeletal, intraoperative, and interventional procedures. Aseptic technique, medical- | Prerequisites: Admission to Diagnostic Medical Sonography program. | | Occ | LEC 4.0 4.0 4.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | legal and patient record keeping and image acquisition for performance of advanced sonographic examinations. | | | | | |
| DMS295 | 2018 Fall | Stress Echocardiography | | Anatomy and physiology of the heart. Normal and stressed states of cardiac anatomy as it relates to diagnostic sonography. Performance of stress echocardiography exam. Pharmacological agents used in stress echocardiography. | Prerequisites: Completion of echocardiography program, or Registered Diagnostic Cardiac Sonographer (RDCS), or Registered Diagnostic Medical Sonographer (RDMS), or Registered Cardiac Sonographer (RCS) credentials. | | Occ | L+L 2.0 3.5 3.5 | T |
| ECE102 | 2024 Spring | Engineering Analysis Tools and Techniques | | Learning culture of engineering, engineering use of computer tools, and computer modeling as applied to engineering analysis and design. | Prerequisites: A grade of C or better in MAT15+ or higher-level mathematics course, or an appropriate District placement above MAT15+, or permission of Instructor or Division or Department Chair. | | Acad | L+L 2.0 4.0 4.0 | T |
| ECE103 | 2021 Fall | Engineering Problem Solving and Design | | Fundamentals of the design process: engineering modeling, communication and problem-solving skills in a team environment. Emphasis on process-based improvements to the design process. Introduction to engineering as a profession. | Prerequisites: A grade of C or better in ECE102 or permission of Instructor or Division or Department Chair. | Student may receive credit for only one of the following: ECE103 or ECE103EP. | Acad | L+L 2.0 4.0 4.0 | T |
| ECE103EP | 2019 Fall | Engineering Problem Solving and Design (with EPICS projects) | | Fundamentals of the design process: engineering modeling, communication and problem-solving skills in a team environment. Emphasis on process-based improvements to the design process. Introduction to engineering as a profession. | Prerequisites: A grade of C or better in ECE102 or permission of Instructor. | ECE103EP students may receive credit for only one of the following: ECE103 or ECE103EP. | Acad | L+L 2.0 4.0 4.0 | T |
| ECE104 | 2020 Fall | EPICS Gold I | | EPICS Gold is the first of a sequence of two two-credit service learning courses in | Prerequisites: None. | Students who complete this course and transfer to ASU may participate in the upper division | Acad | L+L 2.0 2.0 2.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | which EPICS teams are formed from students potentially representing all engineering, computer science, and construction disciplines, as well as other majors, including sustainability, business, liberal arts, sciences, and others. | | EPICS classes following this introductory class, which may include continuation of the project from this class or different projects. Student participation for multiple consecutive semesters on a project is encouraged. ECE104 may be repeated for a total of four (4) credit hours. | | | |
| ECE105 | 2019 Fall | MATLAB Programming | | Use MATLAB to solve engineering problems. An overview of programming, including matrices, structures, strings, functions, control flow, file management, data analysis, graphing capabilities, and mathematical calculations. | Prerequisites: A grade of C or better in [(MAT150 or MAT151 or MAT152 or MAT155 or MAT156) and MAT182] or MAT187 or higher level mathematics course or permission of Instructor or Division or Department Chair. | | | L+L 1.0 2.0 2.0 | T |
| ECE106 | 2006 Fall | Survey of Nanotechnology | | Reading and discussion on topics in nanotechnology. Includes key issues in the development of nanoscale engineering | Prerequisites: None. | Acad | Acad | LEC 1.0 1.0 1.0 | S |
| ECE111 | 2018 Fall | Bioengineering Systems | | Introduction to biological concepts and application of engineering to biological and earth systems. Analysis of materials, structures, fluid mechanics, bioelectricity, and dynamics as applied to biological and environmental systems | Prerequisites: None. | | Acad | LEC 3.0 3.0 3.0 LAB 0.0 2.0 2.0 | T |
| ECE150 | 2022 Fall | Exploring Engineering and its Impact on Society | | Introduction to the profession of engineering and its impact on culture and society. | Prerequisites: None. | Course Attribute(s): General Education Designation: Humanities, Arts and Design - [HU] | Acad | LEC 3.0 3.0 3.0 | S |
| ECE205 | 2024 Fall | Introduction to Mining Engineering | | Introduction to the process of mineral and metal extraction. From location, design, operation to reclamation of a mine site. | Prerequisites: A grade of C or better in ECE102. | | Acad | LEC 3.0 3.0 3.0 | S |
| ECE211 | 2024 Spring | Engineering Mechanics-Statics | | Modeling of static equilibrium in particles and rigid bodies | Prerequisites: A grade of C or better in PHY115 or PHY121 or | | Acad | LEC 3.0 3.0 3.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | through analysis of forces and mechanical properties. | permission of Instructor or Division or Department Chair. Corequisites: MAT230 or MAT231 or permission of Instructor or Division or Department Chair. | | | LAB 0.0 2.0 2.0 | |
| ECE212 | 2024 Spring | Engineering Mechanics-Dynamics | | Modeling of dynamic motion in particles and rigid bodies through kinetics and kinematics. Work and energy principles; impulse and momentum principles; planar kinematics; equations of motion; conservation of energy and momentum. | A grade of C or better required in all Prerequisites. Prerequisites: [ECE211 and (PHY115 or PHY121)] or permission of Instructor or Division or Department Chair. Prerequisites or Corequisites: MAT240 or MAT241 or permission of Instructor or Division or Department Chair. | Acad | | LEC 3.0 3.0 3.0 LAB 0.0 2.0 2.0 | T |
| ECE214 | 2018 Fall | Engineering Mechanics | | Foundations of engineering mechanics, including force systems, resultants, equilibrium of particles and rigid bodies, centroids and centers of mass, area and mass moments of inertia, friction, internal forces in structures, kinematics and kinetics of particles, kinematics and kinetics of rigid bodies, energy and momentum principles. | Prerequisites: A grade of C or better in (ECE103 or ECE103AB or ECE103EP) and (MAT230 or MAT231) and (PHY115 or PHY121). Corequisites: MAT240 or MAT241. | | | LEC 4.0 4.0 4.0 LAB 0.0 2.0 2.0 | T |
| ECE215 | 2019 Fall | Mechanics of Materials | | Designed to provide students with a strong fundamental foundation in the mechanics of solids. Includes the concepts of stress and strain applied to the analysis and design of members subjected to axial and torsional loads and members subjected to shear and bending, applications and transformation of plane stress | Prerequisites: A grade of C or better in (ECE211 or ECE214). | Acad | | L+L 3.0 5.0 5.0 | T |



Acad

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | and plane strain, deformation of beams, and elastic buckling of columns. | | | | | |
| ECE216 | 2019 Fall | Computer-Aided Engineering | | Introduction to engineering graphics, including tolerancing and fasteners, as well as creation and use of engineering drawings. | Prerequisites: A grade of C or better in ECE103, or ECE103EP, or permission of Instructor. Corequisites: ECE216LL. | | | LEC 2.0 2.0 2.0 | S |
| ECE216LL | 2019 Fall | Computer-Aided Engineering Laboratory | | Laboratory experience in support of ECE216. | Prerequisites: A grade of C or better in ECE103, or ECE103EP, or permission of Instructor. Corequisites: ECE216. | | | LAB 1.0 2.0 2.0 | T |
| ECE230 | 2018 Fall | Introduction to the Chemical Engineering Process | | Introduces fundamental skills and principles needed to analyze the industrial processes of importance to the chemical engineering profession. | Prerequisites: A grade of C or better in CHM152 and MAT231. | ECE230 course is designed for chemical engineering students. Acad | Acad | L+L 3.0 5.0 5.0 | T |
| ECE231 | 2018 Fall | Introduction to Fluid Transport Phenomena | | Fundamental skills and principles of fluid transport on both macroscopic and microscopic scales using mass balances, momentum balances and energy balances to analyze and/or design fluid systems of interest in the chemical engineering profession. | Prerequisites: A grade of C or better in MAT271 and PHY121. | Acad | Acad | L+L 3.0 5.0 5.0 | T |
| ECE280 | 2022 Fall | Foundational Statistics for Engineers | MAT280 | Fundamentals of probability, descriptive statistics, sampling distributions, parameter estimation, tests of hypotheses, regression analysis, analysis of variance, and design of experiments. | Prerequisites: A grade of C or better in MAT220, or MAT221, or equivalent. | | Acad | L+L 3.0 5.0 5.0 | T |
| ECE285 | 2018 Fall | Introduction to Astrodynamics | AST285 PHY285 | Introduction to celestial mechanics and the dynamics of spacecraft navigation. Introduction to rocket propulsion and spacecraft design. Orbital and interplanetary celestial mechanics and maneuvers. | Prerequisites: A grade of C or better in ENG101 and (PHY115 or PHY121). | | Acad | LEC 4.0 3.0 3.0 LAB 0.0 3.0 3.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Astrophysics and characteristics of the space environment. Lab is project-based, utilizing a real-time spacecraft simulation environment. | | | | | |
| ECE294 | 2018 Fall | Special Topics in Engineering | | Exploration and investigation of a focused topic in engineering. | Prerequisites: Permission of Instructor or Department or Division Chair. | ECE294 may be repeated for credit. | Acad | L+L 3.0 3.0 3.0 | T |
| ECE294AA | 2018 Fall | Special Topics in Engineering | | Exploration and investigation of a focused topic in engineering. | Prerequisites: Permission of Instructor or Department or Division Chair. | ECE294AA may be repeated for credit. | Acad | L+L 2.0 2.0 2.0 | T |
| ECE294AB | 2018 Fall | Special Topics in Engineering | | Exploration and investigation of a focused topic in engineering. | Prerequisites: Permission of Instructor or Department or Division Chair. | ECE294AB may be repeated for credit. | Acad | L+L 1.0 1.0 1.0 | T |
| ECE294AC | 2018 Fall | Special Topics in Engineering | | Exploration and investigation of a focused topic in engineering. | Prerequisites: Permission of Instructor, or Department or Division Chair. | ECE294AC may be repeated for credit. | Acad | L+L 0.5 0.5 0.5 | T |
| ECE296WA | 2023 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor. | | Acad | LAB 1.0 5.0 0.0 | Z |
| ECE296WB | 2023 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a | | | LAB 2.0 10.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor. | | | | |
| ECE296WC | 2023 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor. | | Acad | LAB 3.0 15.0 0.0 | Z |
| ECE296WD | 2023 Fall | Cooperative Education | | Prerequisites: Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. | Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest | | Acad | LAB 4.0 20.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | or with permission of the Instructor. | | | | |
| ECE297WA | 2024 Spring | Engineering Internship | | Supervised work experience in engineering environment. Includes experience working with engineers or technicians, related to troubleshooting, system design, or other processes. Also includes experiences in problem solving, working as a team, soft skills, time and resource management; and exposure to specific processes. | Prerequisites: Permission of Instructor or Division Chair or Department Chair. | | | LAB 1.0 5.0 0.0 | C |
| ECE297WB | 2024 Spring | Engineering Internship | | Supervised work experience in engineering environment. Includes experience working with engineers or technicians, related to troubleshooting, system design, or other processes. Also includes experiences in problem solving, working as a team, soft skills, time and resource management; and exposure to specific processes. | Prerequisites: Permission of Instructor or Division Chair or Department Chair. | Acad | | LAB 2.0 10.0 0.0 | C |
| ECE297WC | 2024 Spring | Engineering Internship | | Supervised work experience in engineering environment. Includes experience working with engineers or technicians, related to troubleshooting, system design, or other processes. Also includes experiences in problem solving, working as a team, soft skills, time and resource management; and exposure to specific processes. | Prerequisites: Permission of Instructor or Division Chair or Department Chair. | Acad | | LAB 3.0 15.0 0.0 | C |
| ECE297WD | 2024 Spring | Engineering Internship | | Supervised work experience in engineering environment. Includes experience working with engineers or technicians, related to troubleshooting, system design, or other processes. Also includes experiences in problem | Prerequisites: Permission of Instructor or Division Chair or Department Chair. | Acad | | LAB 4.0 20.0 0.0 | C |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | solving, working as a team, soft skills, time and resource management; and exposure to specific processes. | | | | | |
| ECE298AA | 2019 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. | Prerequisites: Permission of Instructor, or Department or Division Chair. | Acad | | LAB 1.0 1.0 0.0 | Z |
| ECE298AB | 2019 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. | Prerequisites: Permission of Instructor, or Department or Division Chair. | Acad | | LAB 2.0 2.0 0.0 | Z |
| ECE298AC | 2019 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and | Prerequisites: Permission of Instructor, or Department or Division Chair. | | | LAB 3.0 3.0 0.0 | Z |



Acad

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | individualized learning to be combined to maximize student development. | | | | | |
| ECG100 | 2023 Fall | Introduction to Healthcare: Medical, Legal, Ethics | | This course is designed to offer the student a foundation in allied health career skills. Students will demonstrate knowledge of the healthcare delivery system, health occupations, basic infection control procedures, Health Insurance Portability and Accountability Act (HIPAA) guidelines, and the general laws and ethical responsibilities of healthcare workers. Students will learn to handle emergency situations, practice safety and security procedures, build interpersonal communication skills as well as define the roles and responsibilities of an electrocardiogram (ECG) technician. Students will learn medical terminology used in healthcare, with special care populations and in special services. Body systems approach to terms related to structures, functions, diseases, procedures and diagnostic tests. Building and analyzing terms using word parts. Medical abbreviations and symbols and term spelling. | Prerequisites: Successful completion of RDG100 or higher or appropriate reading placement into CRE101. | | CLK | 25 | |
| ECG101 | 2023 Fall | The Cardiovascular System: Anatomy & Physiology and Pathophysiology of Cardiovascular Disease | | In this course, students will explore the structure and functions of the cardiovascular system. This course covers the anatomical structures of the heart, the composition of blood, the path of the blood through the heart, and the electrical conduction system. | Prerequisites: ECG100. | | CLK | 30 | |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Students will learn how these systems act as one to supply vital oxygen, nutrients and hormones to tissues and remove carbon dioxide and metabolic waste products. This course also covers pathophysiologic concepts and interventions for patients with heart and coronary vessel disease and disorders such as coronary artery disease (CAD), angina pectoris, myocardial infarction (MI), congestive heart failure (CHF), dysrhythmias, inflammatory processes and valvular heart disease. | | | | | |
| ECG102 | 2023 Fall | Introduction to ECG | | Students will learn the fundamentals of electrocardiography. Students will be able to describe the electrophysiologic basis of cardiac arrhythmias, illustrate the electrical conduction system through the heart, and the process of recording an electrocardiogram (ECG). Students will learn how to acquire 3-lead ECG, 4-lead ECG, 12-lead ECG and interpret rhythm strips. | Prerequisites: ECG101. | | CLK | 40 | |
| ECG103 | 2023 Fall | Applied ECG: Atrial, Junctional, Ventricular Rhythms and Heart Blocks | | Students will learn to recognize arrhythmias that originate within the atria, the ventricle, the AV junction, AV node as well as heart blocks. Students will identify the specific features of each arrhythmia, where it originates from and diseases associated with each. | Prerequisites: ECG102. | | CLK | 50 | |
| ECG104 | 2023 Fall | Advanced Cardiac Life Support | | Designed for the allied healthcare provider who initiates, directs, or participates in the | Prerequisites: ECG103. | | CLK | 20 | |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | management of cardiopulmonary arrest and other cardiovascular emergencies. Provides the allied healthcare provider with the knowledge and skills to recognize and manage cardiopulmonary arrest, acute arrhythmia, stroke, and acute coronary syndromes (ACS) according to current advanced emergency cardiovascular care (ECC) guidelines. Requires prior knowledge of basic electrocardiograph rhythm interpretation, pharmacologic agents, and other interventions used in advanced cardiac life support (ACLS). Upon completion of this course, students will be eligible to take the American Heart Association's (AHA's) Basic Life Support (BLS) and ACLS certification examinations. | | | | | |
| ECG105 | 2023 Fall | Advanced ECG: Diagnostic Procedures, Certification Prep and Exam | | In this course, students will learn the skills and knowledge to perform patient assessments, obtain vital signs, start IVs and conduct blood draws. Students will learn how to attach a Holter monitor to produce a diagnostic trace and analyze the trace following the monitoring process. Students will also learn how to conduct clinical exercise stress tests utilizing exercise electrocardiography for patients with known or suspected coronary artery disease. In this course, students will also learn how to conduct telemetry monitoring | Prerequisites: ECG104. | | CLK | 80 | |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | while in a hospital setting and assess and evaluate pacemakers. Diagnostic testing procedures will be performed within a prescribed range of functions involving routine and non-routine methods as well as diagnostic procedures which require the exercise of some discretion and judgment. Prior to completion of this course, students will have completed an exam prep course and taken the Certified ECG Technician (CET) Exam by the National Healthcareer Association (NHA). The exam is a 100-question exam and students will have 2 hours to complete it. The exam is timed and proctored. | | | | | |
| ECG106 | 2021 Fall 1 | Clinical Practicum | | This course serves as the clinical practicum for Electrocardiogram (ECG) Technician in which the students synthesize standard of care and scope of practice through diagnostic technology, patient assessment, patient advocacy, ethical and professional behaviors, critical thinking and decision making while in the healthcare industry setting. Mandatory attendance for all 80 hours is required for successful completion. | Prerequisites: 1. ECG105 2. Background check requirements in compliance with the Maricopa County Community College District Supplemental Background Check Policy. 3. Students also must provide a copy of an Arizona Department of Public Safety Level One Fingerprint Clearance Card. Students must maintain current fingerprint clearance throughout the externship(s). 4. Complete and submit the Allied Health Student Health and Safety Documentation Checklist, with included documentation. 5. | CLK | | 80 | |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | Students are responsible to meet the requirements of the background check, fingerprint clearance card, and health and safety documentation. | | | | |
| ECH125 | 2023 Fall | Writing for Early Childhood Professionals | | Elements of effective written communication and use in the field of early childhood education. Practical experience using common classroom documents. Course surveys document purpose, readers needs, information organization, and clear expression of ideas. | Prerequisites: None. | | Acad | LEC 1.0 1.0 1.0 | S |
| ECH128 | 2024 Fall | Early Learning: Play and the Arts | | Examines theory, research and practices relating to play and the creative arts in early childhood. Considers practical constraints and alternative perspectives. | Prerequisites: None. | | Acad | LEC 3.0 3.0 3.0 | S |
| ECH140 | 2023 Fall | Learning Made Visible Through Documentation | | The study of documentation in early childhood environments including strategies to reflect on children's thinking, hypothesis development, and the multiple relationships essential in the learning environments. | Prerequisites: None. | | Acad | LEC 1.0 1.0 1.0 | S |
| ECH141 | 2023 Fall | Explore the Fundamentals of the Reggio Emilia Approach | | Investigation and critically examination of the integral elements of the organization and philosophy of the Reggio Emilia approach to early childhood education. | Prerequisites: None. | | Acad | LEC 1.0 1.0 1.0 | S |
| ECH176 | 2023 Fall | Child Development | CFS176 | Study of the science of human development from conception through adolescence. Includes observation skills, parent and adult roles in the lives of children, and contemporary issues. | Prerequisites: None. | Course Attribute(s): General Education Designation: Social and Behavioral Sciences - [SB] | Acad | LEC 3.0 3.0 3.0 | S |
| ECH183 | 2023 Fall | Infant/Toddler Learning Materials | | Safety and design features of commercial, homemade, and | Prerequisites: None. | | Acad | LEC 1.0 1.0 1.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | household learning materials for children from birth through 30 months of age. Focus on matching items with children's developmental levels. | | | | | |
| ECH190 | 2023 Fall | Emergent Language and Literacy | | Analyzing, assessing, and enhancing language and literacy development for the young child. | Prerequisites: None. | | Acad | LEC 3.0 3.0 3.0 | S |
| ECH236 | 2023 Fall | Learning Materials for Young Children | | Design aspects of traditional early childhood play materials examined for teaching/learning potential. Includes design, production, and field-testing of teacher-made devices. | Prerequisites: None. | | Acad | LEC 1.0 1.0 1.0 | S |
| ECH238 | 2023 Fall | Computers in Early Childhood | | Comparison of computers as a teaching device with traditional early childhood learning materials. Hands-on experience with child/computer interaction and software evaluation. | Prerequisites: None. | | Acad | LEC 1.0 1.0 1.0 | S |
| ECH253 | 2023 Fall | National Credential Portfolio Development | | Portfolio or resource file development, completion, and presentation. Self-assessment and credentialing planning, professional development, writing, and critical learning included. | Prerequisites: Permission of Program Director. | | | LEC 3.0 3.0 3.0 | S |
| ECH267 | 2024 Fall | Child Development Associate Preparation Practicum I | | Participation in early childhood education related work experience for the purpose of final preparation for the Child Development Associate (CDA) national credential process. | Prerequisites: None. | | Acad | LEC 1.0 1.0 1.0 | S |
| ECH268 | 2023 Fall | Child Development Associate Preparation Practicum II | | Participation in early childhood education related work experience for the purpose of final preparation for the Child Development Associate (CDA) national credential process. | Prerequisites: A grade of C or better in (CFS178, or CFS194AB, or CFS192, or CFS193), and (CFS/ECH287, or CFS278, or CFS196), and ECH270, and (CFS/ECH176 or CFS205). | Acad | | LEC 1.0 1.0 1.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| ECH269 | 2023 Fall | Child Care Seminar | CFS269 | Emphasizes the blend of job-related activities including career exploration, employment procedures, human relations, and on-the-job issues. | Prerequisites: Permission of Department or Division. | CFS/ECH269 may be repeated for a total of three (3) credit hours. | Acad | LEC 1.0 1.0 1.0 | S |
| ECH270 | 2023 Fall | Observing Young Children | | Introduction to techniques of observing young children. Recording methods, interpretation and use of collected information including legal and ethical implications. | Prerequisites: None. | | Acad | LEC 1.0 1.0 1.0 | S |
| ECH271 | 2023 Fall | Arranging the Environment | CFS271 | Exploration of the influence of the environment on the behavior of young children. Indoor and outdoor spaces considered and analysis of environments practiced. | Prerequisites: None. | | Acad | LEC 1.0 1.0 1.0 | S |
| ECH272 | 2023 Fall | Science for the Young Child | | Methods and techniques for encouraging beginning scientific thinking among young children. Focus upon the theory of Jean Piaget. | Prerequisites: None. | | Acad | LEC 1.0 1.0 1.0 | S |
| ECH273 | 2023 Fall | Math for the Young Child | CFS273 | Methods and techniques for encouraging the beginnings of mathematical/logical thought with young children. Focus upon the theory of Jean Piaget. | Prerequisites: None. | | Acad | LEC 1.0 1.0 1.0 | S |
| ECH274 | 2023 Fall | Books and Verse for the Young Child | | Introduction to verse, storytelling, books and bookmaking for infants, toddlers, and preschoolers. Information as well as storybooks considered. | Prerequisites: None. | | Acad | LEC 1.0 1.0 1.0 | S |
| ECH275 | 2023 Fall | Literacy Development and the Young Child | CFS275 | Literacy from birth through the early childhood years. Focus on developmentally appropriate ways to encourage speaking, listening, writing, and reading in the home and classroom. | Prerequisites: None. | | Acad | LEC 1.0 1.0 1.0 | S |
| ECH279 | 2023 Fall | Early Childhood Curriculum Development | | An intensive focus on the process of building curriculum units appropriate to the developmental needs and | Prerequisites: None. | ECH279 may be repeated for a total of four (4) credit hours. | Acad | LEC 1.0 1.0 1.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | abilities of the young child. Design, use and evaluation of materials and activities. | | | | | |
| ECH280 | 2023 Fall | Food Experiences with Young Children | | A discussion of the nutritional needs of young children and the cultural and social meanings of foods, feeding and eating. Includes planning and managing food experiences in home and group settings. | Prerequisites: None. | | Acad | LEC 1.0 1.0 1.0 | S |
| ECH281 | 2023 Fall | Movement/Music for the Young Child | | Consideration of motor development in the toddler through the 8-year-old and exploration of age-appropriate rhythmic, musical and creative movement methods. | Prerequisites: None. | | Acad | LEC 1.0 1.0 1.0 | S |
| ECH282 | 2023 Fall | Discipline/Guidance of Child Groups | | Exploration of techniques for guiding children in groups with focus on individual child and adult needs for a disciplined environment. | Prerequisites: None. | | Acad | LEC 1.0 1.0 1.0 | S |
| ECH284AA | 2023 Fall | Early Childhood Teaching Internship | CFS284AA | Work experience in child care centers. 80 hours of designated work per credit. | Prerequisites: A grade of C or better in CFS/ECH176 and permission of Department or Division. | CFS/ECH284AA may be repeated for a total of six (6) credit hours. | Acad | L+L 1.0 1.0 0.0 | C |
| ECH284AB | 2023 Fall | Early Childhood Teaching Internship | CFS284AB | Work experience in child care centers. 80 hours of designated work per credit. Maximum of 6 credits allowed. | Prerequisites: A grade of C or better in CFS/ECH176 and permission of Department or Division. Corequisites: CFS/ECH269. | | | L+L 3.0 3.0 3.0 | T |
| ECH287 | 2023 Fall | Professional Development in Early Childhood Education | CFS287 | Emerging professionalism within the field of early childhood education. Consideration of job responsibilities, rewards, ethics and current issues facing practitioners. Includes assessment and career planning. | Prerequisites: None. | Acad | Acad | LEC 1.0 1.0 1.0 | S |
| ECH288 | 2023 Fall | Community Resources and Referral | | Survey of current community agencies, resources, and support groups for a variety of | Prerequisites: None. | | Acad | LEC 1.0 1.0 1.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | child and family needs. Considers appropriate procedures for referral, handling of information, confidentiality and follow up. | | | | | |
| ECH298AA | 2023 Fall | Special Projects | EDU298AA | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. | Prerequisites: Permission of Program Director or Instructor. | | Acad | LAB 1.0 1.0 0.0 | Z |
| ECH298AB | 2023 Fall | Special Projects | EDU298AB | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. | Prerequisites: Permission of Program Director or Instructor. | | Acad | LAB 2.0 2.0 0.0 | Z |
| ECH298AC | 2023 Fall | Special Projects | EDU298AC | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of | Prerequisites: Permission of Program Director or Instructor. | | Acad | LAB 3.0 3.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | independent study and individualized learning to be combined to maximize student development. | | | | | |
| ECN100 | 2007 Spring | Economics in American Society | | Selected principles of macroeconomic and microeconomic analysis. Recommended as a social science elective and for some paraprofessional programs. Not for business transfer students; credit will not be granted if ECN111 or ECN112 has been completed | Prerequisites: None. | | Acad | LEC 3.0 3.0 3.0 | S |
| ECN105 | 1994 Fall | Consumer Economics | | The relationship between the consumer and the economy in American society. Socioeconomic forces that impact on consumer purchases, debt, and budgeting. Consumerism as a movement | Prerequisites: None. | | Acad | LEC 3.0 3.0 3.0 | S |
| ECN160 | 1994 Fall | Economic History of the United States | | A description of the trends of American population, industry, and wealth through examination of major American institutions, historical events, and economic thought. Emphasis on the roles of technology and natural resources in agriculture and industry, the labor force, the monetary system, market structures, and the economic impact of government | Prerequisites: None. | Course Attribute(s): General Education Designation: Historical Awareness - [H] General Education Designation: Social and Behavioral Sciences - [SB] | Acad | LEC 3.0 3.0 3.0 | S |
| ECN204 | 2009 Spring | Macroeconomic Issues | | Macroeconomic principles applied to current problems of economic policy, e.g., inflation, unemployment, gross national product (GDP), forecasting, ramifications for the international system. | Prerequisites: None. | | Acad | LEC 3.0 3.0 3.0 | S |
| ECN208 | 2009 Spring | Microeconomic Issues | | Microeconomic principles applied to current problems of market structure, consumer | Prerequisites: None. | | Acad | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | preference, supply and demand, and the theory of the firm. Topics will include contemporary events that are suitable for application of the economic way of thinking. | | | | | |
| ECN211 | 2024 Fall | Macroeconomic Principles | | A descriptive analysis of the structure and functioning of the American economy. Emphasis on basic economic institutions and factors that determine national income and employment levels. Consideration given to the macroeconomic topics of national income, unemployment, inflation and monetary and fiscal policies. | Prerequisites: None. | | Acad | LEC 3.0 3.0 3.0 | S |
| ECN212 | 2024 Fall | Microeconomic Principles | | Microeconomic analysis including the theory of consumer choice, price determination, resource allocation and income distribution. Includes non-competitive market structures such as monopoly and oligopoly; and the effects of government regulation. | Prerequisites: None. | | Acad | LEC 3.0 3.0 3.0 | S |
| ECN213 | 2018 Fall | The World Economy | | An analysis of the economic interdependence among nations, with emphasis on international trade and finance. Consideration given to the role and function of the multinational enterprise | Prerequisites: None. | Course Attribute(s): General Education Designation: Global Awareness - [G] General Education Designation: Social and Behavioral Sciences - [SB] | Acad | L+L 3.0 3.0 3.0 | T |
| ECN250 | 2018 Fall | World Economic Systems | | A descriptive analysis of capitalist, socialist and mixed economies. Some consideration also given to the problems of less developed economies | Prerequisites: None. | Course Attribute(s): General Education Designation: Global Awareness - [G] General Education Designation: Social and Behavioral Sciences - [SB] | Acad | L+L 3.0 3.0 3.0 | T |
| ECN263 | 2007 Spring | The Economics of Natural Resources, Population and the Environment | | Applies economic analysis to both the causes and possible remedies of the problems of environmental deterioration and natural resource | Prerequisites: A grade of C or better in ECN100 or ECN211 or ECN2112. | | Acad | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | depletion. Includes discussion of the economic problems of urban communities and the relationship between population and economic growth and the depletion of natural resources and environmental pollution | | | | | |
| ECN296WA | 2023 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor. | | Acad | LAB 1.0 5.0 0.0 | Z |
| ECN296WB | 2023 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor. | | Acad | LAB 2.0 10.0 0.0 | Z |
| ECN296WC | 2023 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of | Prerequisites: Completion of at least | | | LAB 3.0 15.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | educators and employers to accomplish an outcome related to the career objectives of the students. | twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor. | | | | |
| ECN296WD | 2002 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor. | | Acad | LAB 4.0 20.0 0.0 | Z |
| ECN298AA | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and | Prerequisites: Permission of Program Director or Instructor. | | Acad | LAB 1.0 1.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | | | | | |
| ECN298AB | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | Prerequisites: Permission of Program Director or Instructor. | Acad | | LAB 2.0 2.0 0.0 | Z |
| ECN298AC | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | Prerequisites: Permission of Program Director or Instructor. | Acad | | LAB 3.0 3.0 0.0 | Z |
| EDT100 | 2022 Fall | Introduction to Endoscopy | | Interpret endoscopy technology purpose, design, and structure. Basic understanding of the history and advancement of endoscopic procedures; anatomy of flexible endoscopes; role and importance of endoscopy technicians; introductory | Prerequisites: None. Corequisites: EDT101, EDT102, EDT105, or permission of Program Director. | | | L+L 1.0 1.0 1.0 | T |



Occ

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | endoscopy reprocessing; regulating agencies and professional endoscopy organizations impacting the current field of endoscopy. | | | | | |
| EDT101 | 2022 Fall | Microbiology and Infection Control in Endoscopy | | Identify and review the basic concepts of microbiology and microorganisms affecting endoscopic reprocessing and procedures. Indicate the requirements for all endoscopic work areas and staff to properly insure asepsis and best patient outcomes. | Prerequisites: None. Corequisites: EDT100, EDT102, EDT105, or permission of Program Director. | | | LEC 1.0 1.0 1.0 | S |
| EDT102 | 2022 Fall | Fundamentals of Endoscope Care and Handling | | Learn the fundamentals of endoscope care and handling including cleaning, decontamination, testing, and preparation for disinfection and sterilization. | Prerequisites: None. Corequisites: EDT100, EDT101, EDT105, or permission of Program Director. | Occ | | L+L 3.0 3.0 3.0 | T |
| EDT105 | 2022 Fall | Advanced Endoscopy Care and Handling | | Learn advanced endoscope care and handling including recordkeeping, transport, manual and mechanical high-level disinfection and storage of rigid, semi-rigid, and flexible endoscopes. | Prerequisites: None. Corequisites: EDT100, EDT101, EDT102, or permission of Program Director. | | | L+L 3.0 3.0 3.0 | T |
| EDT200 | 2022 Fall | Clinical Practicum | | Direct preceptor supervision of students applying knowledge from the Endoscopy program to include communication, policy and procedures, aseptic and sterile technique, endoscopy instruments, trays and packs, sterilization equipment, documentation, and patient assistance performed in the clinical environment. | Prerequisites: A grade of C or better in (EDT100 and EDT101 and EDT102 and EDT105) or permission of Program Director. Corequisites: EDT201 or permission of Program Director. | Occ<br>Occ | Occ | LAB 3.0 22.5 0.0 | C |
| EDT201 | 2022 Fall | Endoscopy Procedures | | Roles and responsibilities of endoscopy room personnel focusing on the endoscopy technician under the direction of the clinical facility preceptor demonstrating the role of the endoscopy technician and | Prerequisites: A grade of C or better in (EDT100 and EDT101 and EDT102 and EDT105) or permission of Program Director. Corequisites: EDT200 | | Occ | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | scope of practice and standard of recommendations. | or permission of Program Director. | | | | |
| EDU101AA | 2007 Summer I | Tutor Training and Practicum | | Tutor training with an opportunity to gain insights into instructional support services through a minimum of 30 hours of supervised on-site experience within an educational setting. Overview of the role and responsibilities of instructional tutors as well as tutoring techniques, with particular focus on reading and writing strategies | Prerequisites: None. | | Acad | LEC 1.0 1.0 1.0 | S |
| EDU110 | 2018 Spring | Education in Film | | Analysis of the portrayal of teaching, schooling and learning in mass media films, including documentary, feature length and emerging platforms. Considers historical, cultural, national and global perspectives on teaching, learning and schooling. Emphasis on identifying factors that contribute to successes as well as failures of schooling within a society. | Prerequisites: None. | | Acad | LEC 3.0 3.0 3.0 | S |
| EDU115 | 2021 Fall | Digital Literacy for Teaching and Learning in Education | EED115 | Overview of digital literacy for identifying the skills needed to become informed users of technology to communicate, instruct, create and think critically with digital tools. Explores how emerging technologies are used to teach and learn across varied educational environments (face-to-face, hybrid, online, etc). Includes skills focused on basic computer operations, productivity software, digital citizenship, instructional practices, information literacy and family and professional partnerships. Discusses | Prerequisites: None. | | Acad | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | current trends and related issues about the use of technology and its impacts in P20 education. | | | | | |
| EDU204 | 2013 Fall | Fine Arts in Educational Settings | | Exploration of fine arts integration in the K-12 classroom setting. Focus on the impact on life-long learning and education goal achievement when curriculum includes fine arts. Arizona art standards of dance, visual, theater and music also covered. | Prerequisites: Formal acceptance to a Maricopa Community College undergraduate state approved teacher preparation program or permission of Department or Division. | | | LEC 3.0 3.0 3.0 | S |
| EDU220 | 2022 Spring | Introduction to Serving English Language Learners (ELL) | | Historical overview of current educational and legal issues for serving English Learners (EL). Comparison and evaluation of various types of language educational models including Structured English Immersion (SEI), Sheltered English Instruction, and bilingual/Dual Language Immersion (DLI). Includes SEI, Sheltered English Instruction, and bilingual/DLI strategies. | Prerequisites: None. | Approved school-based practicum is required. EDU220 incorporates the 45-clock hour curricular framework for SEI endorsement through the Arizona Department of Education. | Acad | LEC 3.0 3.0 3.0 | S |
| EDU221 | 2005 Fall | Introduction to Education | | Overview of the historical, political, economic, social, and philosophical factors that influence education and make it so complex. Opportunity for students to assess their interest and suitability for teaching . | Prerequisites: None. | EDU221 requires a minimum of 30 hours of field experience in elementary or secondary classroom environment. Course Attribute(s): General Education Designation: Social and Behavioral Sciences - [SB] | Acad | LEC 3.0 3.0 3.0 | S |
| EDU222 | 2017 Spring | Introduction to the Exceptional Learner | | Overview of the exceptional learner with emphasis on factors relating to current practices, identification, characteristics, and educational adaptations. Issues related to mild disabilities, severe disabilities, emotional and behavioral disorders, intellectual | Prerequisites: None. | EDU222 requires an approved field experience. Course Attribute(s): General Education Designation: Cultural Diversity - [C] General Education Designation: Social and Behavioral Sciences - [SB] | Acad | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | disabilities, and students who are gifted. | | | | | |
| EDU223AA | 2014 Spring | Emotional Disabilities in the Classroom | | Investigation into the characteristics of and teaching strategies for students with emotional disabilities. Emphasis on Professional Teaching Standards. Includes current research findings related to teaching students with emotional disabilities. | Prerequisites: Baccalaureate Degree and formal admission to a state approved post-baccalaureate teacher preparation program and a grade of C or better in EDU222. | EDU223AA requires an approved field experience. | Acad | LEC 3.0 3.0 3.0 | S |
| EDU223AB | 2014 Spring | Learning Disabilities in the Classroom | | Investigation into the characteristics of and teaching strategies for students with learning disabilities. Emphasis on Professional Teaching Standards. Includes current research findings related to teaching students with learning disabilities. | Prerequisites: Baccalaureate Degree and formal admission to a state approved post-baccalaureate teacher preparation program and a grade of C or better in EDU222. | EDU223AB requires an approved field experience. | Acad | LEC 3.0 3.0 3.0 | S |
| EDU223AC | 2014 Spring | Mild and Moderate Intellectual Disability in the Classroom | | Investigation into the characteristics of and teaching strategies for students with mild and moderate intellectual disability. Emphasis on Professional Teaching Standards. | Prerequisites: Baccalaureate Degree and formal admission to a state approved post-baccalaureate teacher preparation program and a grade of C or better in EDU222. | EDU223AC requires an approved field experience. | Acad | LEC 3.0 3.0 3.0 | S |
| EDU223AD | 2014 Spring | Physical and Other Health Impairments in the Classroom | | Investigation into the characteristics of and teaching strategies for students with physical and other health impairments. Emphasis on Professional Teaching Standards. Includes current research findings related to teaching students with physical and other health impairments. | Prerequisites: Baccalaureate Degree and formal admission to a state approved post-baccalaureate teacher preparation program and a grade of C or better in EDU222. | EDU223AD requires an approved field experience. | Acad | LEC 3.0 3.0 3.0 | S |
| EDU223AF | 2020 Spring | Assessment and Eligibility in Special Education | | A basic overview of eligibility requirements for special services of students with disabilities, as well as investigation into the concepts, laws, issues, and procedures that relate to the | Prerequisites: Baccalaureate Degree and formal admission to a state approved post-baccalaureate teacher preparation program. | | Acad | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | formal and informal assessment of students with disabilities. Covers educational achievement tests and standardized diagnostic tests for students with disabilities as well as intelligence and adaptive behavior measurements. Includes current research findings related to assessing students with special needs and how assessment is used to inform and guide instruction. | | | | | |
| EDU224 | 2013 Fall | Brain Development and Learning | | Exploration of fine arts integration in the K-12 classroom setting. Focus on the impact on life-long learning and education goal achievement when curriculum includes fine arts. Arizona art standards of dance, visual, theater and music also covered. | Prerequisites: Formal acceptance to a Maricopa Community College undergraduate state approved teacher preparation program or permission of Department or Division. | | | LEC 3.0 3.0 3.0 | S |
| EDU225 | 2022 Spring | Professionalism and Ethics in Education | | Exploration of topics relative to the professionalism, legal knowledge, and ethical development of classroom teachers. Topics include professionalism within the teaching profession, legal considerations, ethics vs. code of conduct, dispositions, and impact of personal and community values. Prepares individuals for the professional, legal, and ethical issues that are routinely seen in an educational setting. | Prerequisites: None. | Acad | Acad | LEC 1.0 1.0 1.0 | S |
| EDU230 | 2022 Spring | Cultural Diversity in Education | | Examination of the relationship of cultural values to the formation of self-concept and learning styles. Examination of the role of prejudice, stereotyping and | Prerequisites: None. | General Education Designation: Cultural Diversity - [C] General Education Designation: Humanities, Arts and Design - [HU] | Acad | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | cultural incompatibilities in education. Emphasis on teacher preparation (preservice and/or inservice) to offer an equal educational opportunity to students of all cultural groups | | | | | |
| EDU235 | 2020 Spring | The Exceptional Learner | | Overview of the exceptional learner, one who differs from the average or typical, with emphasis on factors relating to current practices, identification, characteristics, and educational adaptations. Issues related to mildly disabled, severely disabled, emotionally and behaviorally disordered, intellectual disabilities, and gifted students. Includes current research findings related to teaching exceptional learners. | Prerequisites: Baccalaureate Degree and formal acceptance to a Maricopa Community College state approved post-baccalaureate teacher preparation program or permission of Department or Division. | EDU235 requires an approved field experience. | Acad | LEC 3.0 3.0 3.0 | S |
| EDU236 | 2010 Spring | Classroom Relationships | | Analysis of K-12 classroom interactions, classroom environment, and classroom management skills from a teacher's point of view. Focus on classroom as a multidimensional environment in which principles of classroom design, communication, management, and resources determine effectiveness. | Prerequisites: None. EDU221 suggested but not required. | | | LEC 3.0 3.0 3.0 | S |
| EDU237 | 2022 Spring | Grades K-8 Structured English Immersion | | A foundation course designed to serve needs of English Learners (EL) grades K-8. Includes comparison and evaluation of various language educational models including Structured English Immersion (SEI) and the Arizona Language Development Approach with a focus on asset based behaviors and expectations, | Prerequisites: Formal admission to an undergraduate educator preparation program or permission of Department or Division. | Acad | | LEC 3.0 3.0 3.0 | S |



Acad

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | integrated and targeted English Language Development (ELD) instruction. Covers legal and historical foundations and current issues. | | | | | |
| EDU238 | 2022 Spring | Grades 6-12 Structured English Immersion | | A foundational course designed to serve needs of English Learners (EL) grades 6-12. Includes comparison and evaluation of various Structured English Immersion (SEI) models and the Arizona Language Development Approach including asset based behaviors and expectations, integrated and targeted English Language Development (ELD) instruction, assessment monitoring and feedback. Also covers legal and historical foundations and current issues. | Prerequisites: Formal admission to an undergraduate educator preparation program or permission of Department or Division. | Acad | | LEC 3.0 3.0 3.0 | S |
| EDU239 | 2022 Spring | Structured English Immersion Grades K-8 | | A foundation course designed to prepare educators to serve the needs of English Learners (EL) grades K-8. Includes Structured English Immersion (SEI) models and the Arizona Language Development Approach with emphasis on asset based behaviors and expectations, integrated and targeted English Language Development (ELD) instruction, assessment monitoring and feedback. Also covers legal and historical foundations and current issues. | Prerequisites: Baccalaureate Degree or permission of Department or Division. | Acad | | LEC 3.0 3.0 3.0 | S |
| EDU240 | 2022 Spring | Structured English Immersion Grades 6-12 | | A foundational course designed to serve needs of English Learners (EL) grades 6-12. Includes comparison and evaluation of various | Prerequisites: Baccalaureate Degree or permission of Department or Division. | | | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Structured English Immersion (SEI) models and the Arizona Language Development Approach including asset based behaviors and expectations, integrated and targeted English Language Development (ELD) instruction, assessment monitoring and feedback. Also covers legal and historical foundations and current issues. | | | | | |
| EDU241 | 2018 Fall | Special Education: Language Development and Disorders | | Language development and language acquisition of typical children and children with disabilities. Includes language characteristics of children with a variety of disabilities and the creation of enhanced learning experiences in the classroom. Covers the referral process, as well as augmentative and alternative communication tools. Also compares Language Disorders and Language Differences. | Prerequisites: Formal admission to an undergraduate teacher preparation program or permission of Department or Division. | Acad | | LAB 2.0 2.0 2.0 | T |
| EDU242 | 2018 Fall | Language Developmental and Disorders | | Language development and language acquisition of typical children and children with disabilities. Includes language characteristics of children with a variety of disabilities and the creation of enhanced learning experiences in the classroom. Covers the referral process, as well as augmentative and alternative communication tools. Also compares Language Disorders and Language Differences. | Prerequisites: Baccalaureate Degree and formal admission to a state approved post-baccalaureate teacher preparation program or permission of Department or Division. | Acad | | LAB 2.0 2.0 2.0 | T |
| EDU243 | 2018 Fall | Effective Collaboration and Communication Practices in Special Education | | Principles of effective collaboration, consultation, and co-teaching to improve programs, services, and outcomes for individuals with | Prerequisites: Formal admission to an undergraduate teacher preparation program or | | Acad | LAB 1.0 1.0 1.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | exceptionalities and their families. Includes critical interpersonal communication strategies and tools for working with diverse groups of people in addition to the benefits of collaboration as well as the challenges that educators currently face. | permission of Department or Division. | | | | |
| EDU244 | 2018 Fall | Special Education Collaboration and Communication Practices | | Principles of effective collaboration, consultation, and co-teaching to improve programs, services, and outcomes for individuals with exceptionalities and their families. Includes critical interpersonal communication strategies and tools for working with diverse groups of people in addition to the benefits of collaboration as well as the challenges that educators currently face. | Prerequisites: Baccalaureate Degree and formal admission to a state approved post-baccalaureate teacher preparation program or permission of Department or Division. | Acad | | LAB 1.0 1.0 1.0 | T |
| EDU250 | 2007 Fall | Teaching and Learning in the Community College | | The history, functions, organization and current issues in the community/junior college with emphasis on the Arizona community colleges. Includes focus on the design and practice of effective community college teaching and learning with special emphasis on the Maricopa County Community College District | Prerequisites: None. | | Acad | LEC 3.0 3.0 3.0 | S |
| EDU254 | 2019 Fall | Education Internship | | Teaching experience in PK-12 classroom setting. Required to work 120 hours. Supervised and evaluated by a faculty coordinator. | Prerequisites: Permission of Department or Division and admission into a post-baccalaureate teacher certification program. | EDU254 may be repeated for a total of three (3) credits with permission of Department or Division. | Acad | LAB 1.5 7.5 0.0 | C |
| EDU255AA | 2005 Spring | Intern Certificate Student Teaching Lab Elementary Education | | Supervised student teacher practicum. Emphasis on the provision of instruction to learners. Covers lesson plan | Prerequisites: Baccalaureate Degree and formal acceptance of a specified teacher | | | LAB 4.0 12.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | development, classroom procedures, classroom management, and educator professionalism. Includes learner preparation, learner engagement, and learner outcome awareness. | prep two year program plan by an Arizona Department of Education approved college program and the partnering school district. | | | | |
| EDU255AB | 2005 Spring | Intern Certificate Student Teaching Lab Elementary Education | | Supervised student teacher practicum. Emphasis on the provision of instruction to learners. Covers lesson plan development, classroom procedures, classroom management, and educator professionalism. Includes learner preparation, learner engagement, and learner outcome awareness. | Prerequisites: Baccalaureate Degree and formal acceptance of a teacher prep two year program plan by an Arizona Department of Education approved college program the partnering school district EDU255AA and a minimum of 50% successful completion of all designated required course work. | | Acad | LAB 4.0 12.0 0.0 | Z |
| EDU255AC | 2007 Summer I | Intern Certificate Student Teaching Lab - Elementary Education I | | Supervised student teacher practicum. Emphasis on the provision of instruction to learners. Covers lesson plan development, classroom procedures, classroom management, and educator professionalism. Includes learner preparation, learner engagement, and learner outcome awareness. | Prerequisites: Baccalaureate Degree and formal acceptance of a specified teacher prep two year program plan by an Arizona Department of Education approved college program and the partnering school district. | | Acad | LAB 2.0 6.0 0.0 | Z |
| EDU255AD | 2007 Summer I | Intern Certificate Student Teaching Lab - Elementary Education II | | Supervised student teacher practicum. Emphasis on the provision of instruction to learners. Covers lesson plan development, classroom procedures, classroom management, and educator professionalism. Includes learner preparation, learner engagement, and learner outcome awareness. | Prerequisites: Baccalaureate Degree and formal acceptance of a specified teacher prep two year program plan by an Arizona Department of Education approved college program the partnering school district EDU255AC and a minimum of 25% successful completion | | | LAB 2.0 6.0 0.0 | Z |

Acad

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | of all designated required course work. | | | | |
| EDU255AE | 2007 Summer I | Intern Certificate Student Teaching Lab - Elementary Education III | | Supervised student teacher practicum. Emphasis on the provision of instruction to learners. Covers lesson plan development, classroom procedures, classroom management, and educator professionalism. Includes learner preparation, learner engagement, and learner outcome awareness. | Prerequisites: Baccalaureate Degree and formal acceptance of a specified teacher prep two year program plan by an Arizona Department of Education approved college program the partnering school district EDU255AD and a minimum of 50% successful completion of all designated required course work. | | Acad | LAB 2.0 6.0 0.0 | Z |
| EDU255AF | 2007 Summer I | Intern Certificate Student Teaching Lab - Elementary Education IV | | Supervised student teacher practicum. Emphasis on the provision of instruction to learners. Covers lesson plan development, classroom procedures, classroom management, and educator professionalism. Includes learner preparation, learner engagement, and learner outcome awareness. | Prerequisites: Baccalaureate Degree and formal acceptance of a specified teacher prep two year program plan by an Arizona Department of Education approved college program the partnering school district EDU255AE and a minimum of 75% successful completion of all designated required course work. | | Acad | LAB 2.0 6.0 0.0 | Z |
| EDU256AA | 2005 Spring | Intern Certificate Student Teaching Lab Secondary Education | | Supervised student teacher practicum. Emphasis on the provision of instruction to learners. Covers lesson plan development, classroom procedures, classroom management, and educator professionalism. Includes learner preparation, learner engagement, and learner outcome awareness | Prerequisites: Baccalaureate Degree and formal acceptance of a specified teacher prep two year program plan by an Arizona Department of Education approved college program and the partnering school district. | | Acad | LAB 4.0 12.0 0.0 | Z |
| EDU256AB | 2005 Spring | Intern Certificate Student Teaching Lab Secondary Education | | Supervised student teacher practicum. Emphasis on the provision of instruction to | Prerequisites: Baccalaureate Degree and formal acceptance | | | LAB 4.0 12.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | learners. Covers lesson plan development, classroom procedures, classroom management, and educator professionalism. Includes learner preparation, learner engagement, and learner outcome awareness. | of a teacher prep two year program plan by an Arizona Department of Education approved college program the partnering school district EDU256AA and a minimum of 50% successful completion of all designated required course work. | | | | |
| EDU256AC | 2007 Summer I | Intern Certificate Student Teaching Lab - Secondary Education I | | Supervised student teacher practicum. Emphasis on the provision of instruction to learners. Covers lesson plan development, classroom procedures, classroom management, and educator professionalism. Includes learner preparation, learner engagement, and learner outcome awareness. | Prerequisites: Baccalaureate Degree and formal acceptance of a specified teacher prep two year program plan by an Arizona Department of Education approved college program and the partnering school district. | | Acad | LAB 2.0 6.0 0.0 | Z |
| EDU256AD | 2007 Summer I | Intern Certificate Student Teaching Lab - Secondary Education II | | Supervised student teacher practicum. Emphasis on the provision of instruction to learners. Covers lesson plan development, classroom procedures, classroom management, and educator professionalism. Includes learner preparation, learner engagement, and learner outcome awareness. | Prerequisites: Baccalaureate Degree and formal acceptance of a teacher prep two year program plan by an Arizona Department of Education approved college program the partnering school district EDU256AC and a minimum of 25% successful completion of all designated required course work. | | Acad | LAB 2.0 6.0 0.0 | Z |
| EDU256AE | 2007 Summer I | Intern Certificate Student Teaching Lab - Secondary Education III | | Supervised student teacher practicum. Emphasis on the provision of instruction to learners. Covers lesson plan development, classroom procedures, classroom management, and educator professionalism. Includes learner preparation, learner | Prerequisites: Baccalaureate Degree and formal acceptance of a specified teacher prep two year program plan by an Arizona Department of Education approved college program the partnering school | | | LAB 2.0 6.0 0.0 | Z |



Acad

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | engagement, and learner outcome awareness. | district EDU256AD and a minimum of 50% successful completion of all designated required course work. | | | | |
| EDU256AF | 2007 Summer I | Intern Certificate Student Teaching Lab - Secondary Education IV | | Supervised student teacher practicum. Emphasis on the provision of instruction to learners. Covers lesson plan development, classroom procedures, classroom management, and educator professionalism. Includes learner preparation, learner engagement, and learner outcome awareness. | Prerequisites: Baccalaureate Degree and formal acceptance of a specified teacher prep two year program plan by an Arizona Department of Education approved college program the partnering school district EDU256AE and a minimum of 75% successful completion of all designated required course work. | | Acad | LAB 2.0 6.0 0.0 | Z |
| EDU257AC | 2007 Summer I | Intern Certificate Student Teaching Lab - Special Education I | | Supervised student teacher practicum. Emphasis on the provision of instruction to learners. Covers lesson plan development, classroom procedures, classroom management, and educator professionalism. Includes learner preparation, learner engagement, and learner outcome awareness. | Prerequisites: Baccalaureate Degree and formal acceptance of a specified teacher prep two year program plan by an Arizona Department of Education approved college program and the partnering school district. | | Acad | LAB 2.0 6.0 0.0 | Z |
| EDU257AD | 2007 Summer I | Intern Certificate Student Teaching Lab - Special Education II | | Supervised student teacher practicum. Emphasis on the provision of instruction to learners. Covers lesson plan development, classroom procedures, classroom management, and educator professionalism. Includes learner preparation, learner engagement, and learner outcome awareness. | Prerequisites: Baccalaureate Degree and formal acceptance of a teacher prep two year program plan by an Arizona Department of Education approved college program the partnering school district EDU257AC and a minimum of 25% successful completion of all designated required course work. | | Acad | LAB 2.0 6.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| EDU257AE | 2007 Summer I | Intern Certificate Student Teaching Lab - Special Education III | | Supervised student teacher practicum. Emphasis on the provision of instruction to learners. Covers lesson plan development, classroom procedures, classroom management, and educator professionalism. Includes learner preparation, learner engagement, and learner outcome awareness. | Prerequisites: Baccalaureate Degree and formal acceptance of a specified teacher prep two year program plan by an Arizona Department of Education approved college program the partnering school district EDU257AD and a minimum of 50% successful completion of all designated required course work. | | Acad | LAB 2.0 6.0 0.0 | Z |
| EDU257AF | 2007 Summer I | Intern Certificate Student Teaching Lab - Special Education IV | | Supervised student teacher practicum. Emphasis on the provision of instruction to learners. Covers lesson plan development, classroom procedures, classroom management, and educator professionalism. Includes learner preparation, learner engagement, and learner outcome awareness. | Prerequisites: Baccalaureate Degree and formal acceptance of a specified teacher prep two year program plan by an Arizona Department of Education approved college program the partnering school district EDU257AE and a minimum of 75% successful completion of all designated required course work. | | Acad | LAB 2.0 6.0 0.0 | Z |
| EDU260AA | 2014 Spring | Art Methods and Curriculum Development for Elementary | | Overview and practical application of teaching elementary art. Covers teaching strategies, learning environments, teaching resources, and use of technology. Emphasis on State Board of Education Professional Teaching Standards. | Prerequisites: Baccalaureate Degree and formal admission to a state approved post-baccalaureate teacher preparation program. | EDU260AA requires an approved field experience. | Acad | LEC 4.0 4.0 4.0 | S |
| EDU260AB | 2014 Spring | Art Methods and Curriculum Development for Secondary | | Overview and practical application of teaching secondary art. Covers teaching strategies, learning environments, teaching resources, and use of | Prerequisites: Baccalaureate Degree and formal admission to a state approved post-baccalaureate teacher preparation program. | EDU260AB requires an approved field experience. | Acad | LEC 4.0 4.0 4.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | technology. Emphasis on State Board of Education Professional Teaching Standards. | | | | | |
| EDU261AA | 2014 Spring | Dance Methods and Curriculum Development for Elementary | | Overview and practical application of teaching elementary dance and movement. Covers teaching strategies, learning environments, teaching resources, and use of technology. Emphasis on State Board of Education Professional Teaching Standards. | Prerequisites: Baccalaureate Degree and formal admission to a state approved post-baccalaureate teacher preparation program. | EDU261AA requires an approved field experience. | Acad | LEC 4.0 4.0 4.0 | S |
| EDU261AB | 2014 Spring | Dance Methods and Curriculum Development for Secondary | | Overview and practical application of teaching secondary dance and movement. Covers teaching strategies, learning environments, teaching resources, and use of technology. Emphasis on State Board of Education Professional Teaching Standards. | Prerequisites: Baccalaureate Degree and formal admission to a state approved post-baccalaureate teacher preparation program. | EDU261AB requires an approved field experience. | Acad | LEC 4.0 4.0 4.0 | S |
| EDU262AA | 2014 Spring | Dramatic Arts Methods and Curriculum Development for Elementary | | Overview and practical application of teaching elementary dramatic arts. Covers teaching strategies, learning environments, teaching resources, and use of technology. Emphasis on State Board of Education Professional Teaching Standards. | Prerequisites: Baccalaureate Degree and formal admission to a state approved post-baccalaureate teacher preparation program. | EDU262AA requires an approved field experience. | Acad | LEC 4.0 4.0 4.0 | S |
| EDU262AB | 2014 Spring | Dramatic Arts Methods and Curriculum Development for Secondary | | Overview and practical application of teaching secondary dramatic arts. Covers teaching strategies, learning environments, teaching resources, and use of technology. Emphasis on State Board of Education Professional Teaching Standards. | Prerequisites: Baccalaureate Degree and formal admission to a state approved post-baccalaureate teacher preparation program. | EDU262AB requires an approved field experience. | Acad | LEC 4.0 4.0 4.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| EDU263AA | 2014 Spring | Music Methods and Curriculum Development for Elementary | | Overview and practical application of teaching elementary music. Covers teaching strategies, learning environments, teaching resources, and use of technology. Emphasis on State Board of Education Professional Teaching Standards. | Prerequisites: Baccalaureate Degree and formal admission to a state approved post-baccalaureate teacher preparation program. | EDU263AA requires an approved field experience. | Acad | LEC 4.0 4.0 4.0 | S |
| EDU263AB | 2014 Spring | Music Methods and Curriculum Development for Secondary | | Overview and practical application of teaching secondary music. Covers teaching strategies, learning environments, teaching resources, and use of technology. Emphasis on State Boardof Education Professional Teaching Standards. | Prerequisites: Baccalaureate Degree and formal admission to a state approved post-baccalaureate teacher preparation program. | EDU263AB requires an approved field experience. | Acad | LEC 4.0 4.0 4.0 | S |
| EDU267 | 2022 Fall | Reading Instructional Practices, Interventions, and Assessments | | Overview of instructional practices, interventions, and assessments associated with reading instruction and the systematic teaching of phonics. Course will address historical methods and current research in reading; analyze research-based instructional practices; analyze research-based assessments and possible interventions; review support provided by Multi-Tiered Systems of Support (MTSS) and Response to Intervention (RTI); and explore Reading disabilities (Dyslexia) and laws associated with Reading disabilities. | Prerequisites: Formal acceptance to a Maricopa Community College state approved teacher preparation program or permission of Department or Division. | EDU267 requires an approved field experience. | Acad | LEC 3.0 3.0 3.0 | S |
| EDU268 | 2022 Fall | Science of Reading Including Systematic Phonics Instruction | | Overview of the science of reading with an emphasis on explicit instructional practices associated with research based systematic phonics instruction. Covers research based on the science of | Prerequisites: Formal acceptance to a Maricopa Community College state approved teacher preparation program or permission | EDU268 requires an approved field experience. | Acad | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | reading related to the teaching of reading in the K-8 school setting to include understanding reading research; essential components of reading instruction; implementation of effective methods for reading instruction; and alignment of reading instruction to systematic phonics instruction. | of Department or Division. | | | | |
| EDU269 | 2022 Fall | Educational Technology | | Overview and practical application of teaching methodology integrating technology into curriculum development for teachers. Explores how emerging technologies are used to teach and learn across varied educational environments (face-to-face, hybrid, online, etc.). Includes skills focused on basic computer operations, productivity software, digital citizenship, instructional practices, information literacy and family and professional partnerships. Emphasis placed on effective use of technology in teaching and learning. Discusses current trends and related issues about technology and its impacts in P12 education. | Prerequisites: Baccalaureate Degree and formal acceptance to a Maricopa Community College state approved post-baccalaureate teacher preparation program or permission of Department or Division. | Acad | | LEC 3.0 3.0 3.0 | S |
| EDU270 | 2013 Fall | Learning and the Brain | | Teaching and learning issues within a cognitive processes context. Covers emotion, memory, and recall as well as early brain development and its relationship to learning. Emphasis on current neuroscientific brain research and how it impacts teaching practice in preK-12 classrooms. | Prerequisites: Baccalaureate Degree and formal acceptance to a Maricopa Community College state approved post-baccalaureate teacher preparation program or permission of Department or Division. | | | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| EDU270AB | 2012 Summer I | Secondary Reading and Decoding | | Focus on the theories, methods and models of teaching literacy and decoding in the content areas of secondary grades. | Prerequisites: Baccalaureate Degree and formal admission to a state approved Post Baccalaureate teacher preparation program. | | Acad | LEC 3.0 3.0 3.0 | S |
| EDU272 | 2020 Spring | Educational Psychology | | Focus on the study and application of psychological principles, theories, and methodologies related to teaching and learning. Emphasis on developmental, learning, and motivational theories. Current trends also covered. | Prerequisites: None. | | Acad | LEC 3.0 3.0 3.0 | S |
| EDU274 | 2014 Spring | Understanding Adolescent Behavior in the Classroom | | Focuses on understanding adolescents' development including psychosocial, emotional, cognitive and physical. Covers impact of early experiences, relationships, and learning abilities. Establishment of a learning environment supportive of the adolescent emphasized. Includes current research findings related to adolescents. | Prerequisites: Baccalaureate Degree and formal admission to a state approved post-baccalaureate teacher preparation program. | EDU274 requires an approved field experience. | Acad | LEC 3.0 3.0 3.0 | S |
| EDU276 | 2015 Fall | Classroom Management and Behavior Analysis | | Classroom management techniques, and behavior analysis. Classroom discipline models, student behavior and misbehavior, group dynamics, student self-motivation and learning styles covered. Professional Teaching Standards emphasized. | Prerequisites: Baccalaureate Degree and formal acceptance to a Maricopa Community College state approved post-baccalaureate teacher preparation program or permission of Department or Division. | EDU276 requires an approved field experience. | Acad | LEC 3.0 3.0 3.0 | S |
| EDU277AA | 2023 Fall | Elementary Student Teaching | | Supervised student teacher practicum. Emphasis on the provision of instruction to learners. Covers lesson plan development, classroom procedures, classroom management, and educator professionalism. Includes | Prerequisites: Formal admission to an undergraduate teacher preparation program, and a grade of C or better in EDU287AB and permission of Department or Division. | | | LAB 8.0 5.0 5.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | learner preparation, learner engagement, and learner outcome awareness. | | | | | |
| EDU277AB | 2023 Fall | Secondary Student Teaching | | Supervised student teacher practicum. Emphasis on the provision of instruction to learners. Covers lesson plan development, classroom procedures, classroom management, and educator professionalism. Includes learner preparation, learner engagement, and learner outcome awareness. | Prerequisites: Formal admissions to an undergraduate teacher preparation program, and a grade of C or better in EDU287AB and permission of Department or Division. | | | LAB 8.0 5.0 5.0 | T |
| EDU277AC | 2023 Fall | Special Education: Cross-Categorical Student Teaching | | Supervised student teacher practicum. Emphasis on the provision of instruction to learners. Covers lesson plan development, classroom procedures, classroom management, and educator professionalism. Includes learner preparation, learner engagement, and learner outcome awareness. | Prerequisites: Formal admission to an undergraduate teacher preparation program, and a grade of C or better in EDU287AB and permission of Department or Division. | Acad | | LAB 8.0 5.0 5.0 | T |
| EDU278 | 2001 Spring | Educational Assessment and Evaluation | | Examination of assessing student performance. Assessment criteria and development of various types of assessment covered. Instructor developed assessments emphasized. Standardized, norm-referenced and criterion-referenced tests also included. Arizona State Board of Education Professional Teaching Standards emphasized | Prerequisites: A grade of C or better in EDU272. | Acad | Acad | LEC 3.0 3.0 3.0 | S |
| EDU282AA | 2013 Fall | Service-Learning Experience in Education | | Unpaid Service-Learning (SL) experience, completed with approved community partner. | Prerequisites: Permission of Instructor. | EDU282AA may be repeated for a total of six (6) credit hours. Standard grading available according to procedures outlined in catalog. | Acad | LAB 1.0 1.0 0.0 | L |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| EDU282AB | 2013 Fall | Service-Learning Experience in Education | | Unpaid Service-Learning (SL) experience, completed with approved community partner. | Prerequisites: Permission of Instructor. | EDU282AB may be repeated for a total of six (6) credit hours. Standard grading available according to procedures outlined in catalog. | Acad | LAB 2.0 2.0 0.0 | L |
| EDU282AC | 2013 Fall | Service-Learning Experience in Education | | Unpaid Service-Learning (SL) experience, completed with approved community partner. | Prerequisites: Permission of Instructor. | EDU282AC may be repeated for a total of six (6) credit hours. Standard grading available according to procedures outlined in catalog. | Acad | LAB 3.0 3.0 0.0 | L |
| EDU287AA | 2013 Fall | Master Teacher Seminar I | | Special topics in education with an emphasis on current issues not covered in education courses. | Prerequisites: Baccalaureate Degree and formal acceptance to a Maricopa Community College state approved post-baccalaureate teacher preparation program or permission of Department or Division. | EDU287AA may be repeated for a total of four (4) credit hours. | Acad | LEC 1.0 1.0 1.0 | S |
| EDU287AB | 2004 Summer I | Master Teacher Seminar II | | Special topics in education with an emphasis on current issues not covered in education courses. | Prerequisites: Formal admission to an undergraduate teacher preparation program. | EDU287AB may be repeated for a total of four (4) credit hours. | Acad | LEC 1.0 1.0 1.0 | S |
| EDU287AC | 2004 Summer I | Master Teacher Seminar III | | Special topics in education with an emphasis on current issues not covered in education courses. | Prerequisites: Baccalaureate degree and formal admission to a state approved post baccalaureate teacher preparation program. | EDU287AC may be repeated for a total of four (4) credit hours. | Acad | LEC 1.0 1.0 1.0 | S |
| EDU288AA | 2008 Summer I | Student Teaching Lab - Elementary | | Supervised student teacher practicum. Emphasis on the provision of instruction to learners. Covers lesson plan development, classroom procedures, classroom management, and educator professionalism. Includes learner preparation, learner engagement, and learner outcome awareness. | Prerequisites: Baccalaureate Degree and formal admission to a state approved post-baccalaureate teacher preparation program and a grade of C or better in EDU251 and permission of Department or Division. | | | LAB 8.0 5.0 0.0 | Z |
| EDU288AB | 2008 Summer I | Student Teaching Lab - Secondary | | Supervised student teacher practicum. Emphasis on the provision of instruction to learners. Covers lesson plan development, classroom | Prerequisites: Baccalaureate Degree and formal admission to a state approved post-baccalaureate teacher | Acad | | LAB 8.0 5.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | procedures, classroom management, and educator professionalism. Includes learner preparation, learner engagement, and learner outcome awareness. | preparation program and a grade of C or better in EDU251 and permission of Department or Division. | | | | |
| EDU289 | 2012 Summer I | Secondary Methods and Curriculum Development | | Overview and practical application of teaching methodology and curriculum development for secondary education teachers. Teaching strategies, curriculum design, lesson objectives, time management skills, teaching resources and student assessments covered. Professional Teaching Standards emphasized. Includes current research findings related to secondary education methods and curriculum development. | Prerequisites: Baccalaureate Degree and formal admission to a state approved post-baccalaureate teacher preparation program. | Upon completion of EDU289, students are required to enroll in one of the following courses: EDU289AA or EDU289AB or EDU289AC or EDU289AD or EDU289AE or EDU289AF. | Acad | LEC 1.0 1.0 1.0 | S |
| EDU289AA | 2018 Fall | Secondary Social Studies Methods and Curriculum Development | | Overview and practical application of social studies teaching methodology and curriculum development for secondary teachers. Teaching strategies and learning styles covered. Curriculum design, lesson objectives, time management skills, teaching resources and student assessment also included. Professional Teaching Standards emphasized. Includes current research findings related to the application and learning of secondary social studies content; the methods alignment will be centered around History, Geography, Economics, or Political Science. | Prerequisites: Baccalaureate Degree and acceptance of formal application into a state approved post-baccalaureate teacher preparation program or permission of Department or Division. A grade of C or better in EDU289 or Corequisites: EDU289. | EDU289AA requires an approved school-based field experience. | Acad | L+L 2.0 2.0 2.0 | T |
| EDU289AB | 2018 Fall | Secondary Mathematics Methods and Curriculum Development | | Overview and practical application of mathematics | Prerequisites: Baccalaureate Degree | EDU289AB requires an approved field experience. | Acad | L+L 2.0 2.0 2.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | teaching methodology and curriculum development for secondary teachers. Teaching strategies and learning styles covered. Curriculum design, lesson objectives, time management skills, teaching resources and student assessment also included. Professional Teaching Standards emphasized. Includes current research findings related to the application and learning of secondary mathematics content. | and formal admission to a state approved post-baccalaureate teacher preparation program. Prerequisites: A grade of C or better in EDU289 or Corequisites: EDU289. | | | | |
| EDU289AC | 2018 Fall | Secondary Science Methods and Curriculum Development | | Overview and practical application of science teaching methodology and curriculum development for secondary teachers. Teaching strategies and learning styles covered. Curriculum design, lesson objectives, time management skills, teaching resources and student assessment also included. Professional Teaching Standards emphasized. Includes current research findings related to the application and learning of secondary science content. | Prerequisites: Baccalaureate Degree and formal admission to a state approved post-baccalaureate teacher preparation program. Prerequisites: A grade of C or better in EDU289 or Corequisites: EDU289. | EDU289AC requires an approved field experience. | Acad | L+L 2.0 2.0 2.0 | T |
| EDU289AD | 2018 Fall | Secondary English Methods and Curriculum Development | | Overview and practical application of English teaching methodology and curriculum development for secondary teachers. Teaching strategies and learning styles covered. Curriculum design, lesson objectives, time management skills, teaching resources and student assessment also included. Professional Teaching Standards emphasized. Includes current | Prerequisites: Baccalaureate Degree and formal admission to a state approved post-baccalaureate teacher preparation program. Prerequisites: A grade of C or better in EDU289 or Corequisites: EDU289. | EDU289AD requires an approved field experience. | Acad | L+L 2.0 2.0 2.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | research findings related to the application and learning of secondary English content. | | | | | |
| EDU289AE | 2018 Fall | Secondary Methods and Curriculum Development in Special Topics | | Overview and practical application of teaching methodology and curriculum development for secondary teachers in special topics such as Music, Theater, Art, Economics, Foreign Languages, Computers, PE, etc. Teaching strategies and learning styles covered. Curriculum design, lesson objectives, time management skills, teaching resources and student assessment also included. Professional Teaching Standards emphasized. Includes current research findings related to specific content teaching areas in Secondary Education. | Prerequisites: Baccalaureate Degree and formal admission to a state approved post-baccalaureate teacher preparation program. Prerequisites: A grade of C or better in EDU289 or Corequisites: EDU289. | EDU289AE requires an approved field experience. | Acad | L+L 2.0 2.0 2.0 | T |
| EDU290 | 2014 Spring | Science Methods and Curriculum Development | | Overview and practical application of teaching elementary science. Covers teaching strategies, learning environments, teaching resources, and use of technology. Emphasis on Professional Teaching Standards. Includes current research findings related to the application and learning of elementary science content. | Prerequisites: Baccalaureate Degree and formal admission to a state approved post-baccalaureate teacher preparation program. | EDU290 requires an approved field experience. | Acad | LEC 3.0 3.0 3.0 | S |
| EDU291 | 2023 Fall | Children's Literature | ENH291 | Review of folk and modern literature from a variety of world cultures, including application of literary criteria to folk and modern literature for children. | Prerequisites: None. | Course Attribute(s): General Education Designation: Humanities, Arts and Design - [HU] | Acad | LEC 3.0 3.0 3.0 | S |
| EDU292 | 2023 Fall | The Art Of Storytelling | HUM292 STO292 | Explore the art and origin of storytelling. Provide a variety of storytelling techniques, styles and exercises to | Prerequisites: None. | Course Attribute(s): General Education Designation: Humanities, Arts and Design - [HU] | Acad | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | enhance the delivery of telling stories. Assist in the integration and application of storytelling to the learning environment in the classroom. | | | | | |
| EDU293 | 2014 Spring | Mathematics Methods and Curriculum Development | | Overview and practical application of teaching mathematics in K-8 grades. Development of lesson plans and assessment instruments emphasized. Current trends, Professional Teaching Standards and National Council of Teachers of Mathematics Standards also covered. Includes current research findings related to the application and learning of elementary mathematics content. | Prerequisites: Baccalaureate Degree and formal admission to a state approved post-baccalaureate teacher preparation program. | EDU293 requires an approved field experience. | Acad | LEC 3.0 3.0 3.0 | S |
| EDU294 | 2001 Fall | Multicultural Folktales | ENH294 STO294 | Study of multicultural folktales, exploring the impact of the oral tradition in American society and showing classroom applications | Prerequisites: None. | Course Attribute(s): General Education Designation: Cultural Diversity - [C] General Education Designation: Humanities, Arts and Design - [HU] | Acad | LEC 3.0 3.0 3.0 | S |
| EDU295 | 2014 Spring | Social Studies Methods and Curriculum Development | | Overview of teaching elementary social studies. Topics include lesson plans preparation, teaching strategies, assessments, classroom management techniques and teaching resources. Emphasis on Professional Teaching Standards. Includes current research findings related to the application and learning of elementary social studies content. | Prerequisites: Baccalaureate Degree and formal admission to a state approved post-baccalaureate teacher preparation program. | EDU295 requires an approved field experience. | Acad | LEC 3.0 3.0 3.0 | S |
| EDU296WA | 2023 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a | | | LAB 1.0 5.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor. | | | | |
| EDU296WB | 2023 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor. | | Acad | LAB 2.0 10.0 0.0 | Z |
| EDU296WC | 2023 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest | | Acad | LAB 3.0 15.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | or with permission of the Instructor. | | | | |
| EDU296WD | 2023 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor. | | Acad | LAB 4.0 20.0 0.0 | Z |
| EDU298AA | 2023 Fall | Special Projects | ECH298AA | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | Prerequisites: Permission of Program Director or Instructor. | | Acad | LAB 1.0 1.0 0.0 | Z |
| EDU298AB | 2023 Fall | Special Projects | ECH298AB | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. | Prerequisites: Permission of Program Director or Instructor. | | Acad | LAB 2.0 2.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | | | | | |
| EDU298AC | 2023 Fall | Special Projects | ECH298AC | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | Prerequisites: Permission of Program Director or Instructor. | Acad | | LAB 3.0 3.0 0.0 | Z |
| EDU337 | 2023 Fall | Structured English Immersion in Grades K-8 | | Overview of teaching to serve the needs of diverse English learner (EL) students in grades K-8. Includes comparison and evaluation of various language educational models, including Structured English Immersion (SEI) and the Arizona Language Development Approach (LDA) with a focus on asset based behaviors and expectations, integrated and targeted English Language Development (ELD) instruction. Covers legal and historical foundations and current issues. | Prerequisites: Formal acceptance to a Maricopa Community College state approved teacher preparation program or permission of Department or Division. | Acad | | LEC 3.0 3.0 3.0 | S |
| EDU367 | 2023 Fall | Science of Reading with Systematic Phonics Instruction in Grades K-8 | | Overview of the science of reading with an emphasis on explicit instructional practices associated with research-based systematic phonics instruction. Uses analysis of | Prerequisites: Formal acceptance to a Maricopa Community College state approved teacher preparation program or permission | EDU367 requires an approved field experience. | Acad | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | science of reading-based research to identify best practices for effectively teaching reading in the K-8 school setting, including essential components, pedagogical strategies and alignment to systematic phonics instruction. | of Department or Division. | | | | |
| EDU368 | 2023 Fall | Reading Instructional Practices, Interventions, and Assessments in Grades K-8 | | Application of instructional practices, interventions and assessments associated with reading instruction and the systematic teaching of phonics to support readers of varying ages and ability levels, including students with dyslexia. This course addresses historical methods, current research, research-based instructional practices, assessments and interventions using Multi-tiered Systems of Support (MTSS) or Response to Intervention (RTI). | Prerequisites: Formal acceptance to a Maricopa Community College state approved teacher preparation program or permission of Department or Division. | EDU368 requires an approved field experience. | Acad | LEC 3.0 3.0 3.0 | S |
| EDU372 | 2023 Fall | Educational Psychology for Teachers (Grades K-12) | | Overview of scientific research and psychological principles, theories, and methodologies related to teaching and learning. Emphasis on developmental, learning, and motivational theories. Focuses on human diversity, theories of learning, intelligence, memory, creativity, assessment, and factors influencing effective instruction and learning. | Prerequisites: Formal acceptance to a Maricopa Community College state approved teacher preparation program or permission of Department or Division. | | | LEC 3.0 3.0 3.0 | S |
| EDU427 | 2023 Fall | Social Studies Teaching Methods and Pedagogical Strategies for Grades K-8 | | Application of research-based instruction in elementary social studies. Topics include developmentally appropriate instruction, and assessment, cross-curricular integration of social studies, lesson plan | Prerequisites: Formal acceptance to a Maricopa Community College state approved teacher preparation program or permission | EDU427 requires an approved field experience. | Acad | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | preparation, evidence-based teaching strategies, and teaching resources. Emphasis on current professional teaching standards and Arizona Academic Standards. | of Department or Division. | | | | |
| EDU428 | 2023 Fall | English Language Arts Teaching Methods and Pedagogical Strategies for Grades K-8 | | Application of research-based instruction in elementary English Language Arts, including reading, writing, speaking, and listening. Topics include developmentally appropriate instruction, and assessment, cross-curricular integration of language arts, lesson plan preparation, evidence-based teaching strategies, and teaching resources. Emphasis on current professional teaching standards and Arizona Academic Standards. | Prerequisites: Formal acceptance to a Maricopa Community College state approved teacher preparation program or permission of Department or Division. | EDU428 requires an approved field experience. | Acad | LEC 3.0 3.0 3.0 | S |
| EDU429 | 2023 Fall | Science Teaching Methods and Pedagogical Strategies for Grades K-8 | | Application of research-based instruction in elementary science. Topics include developmentally appropriate instruction, and assessment, cross-curricular integration of scientific concepts and problem solving skills, lesson plan preparation, evidence-based teaching strategies, and teaching resources. Emphasis on current professional teaching standards and Arizona Academic Standards. | Prerequisites: Formal acceptance to a Maricopa Community College state approved teacher preparation program or permission of Department or Division. | EDU429 requires an approved field experience. | Acad | LEC 3.0 3.0 3.0 | S |
| EDU431 | 2023 Fall | Mathematics Teaching Methods and Pedagogical Strategies for Grades K-8 | | Application of research-based instruction in elementary mathematics. Topics include developmentally appropriate instruction, and assessment, cross-curricular integration of mathematics and logical problem solving, lesson plan preparation, evidence-based | Prerequisites: Formal acceptance to a Maricopa Community College state approved teacher preparation program or permission of Department or Division. | EDU431 requires an approved field experience. | Acad | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | teaching strategies, and teaching resources. Emphasis on current trends, professional teaching standards and Arizona Academic Standards. | | | | | |
| EDU477 | 2023 Fall | Student Teaching: Elementary (Grades K-8) | | Supervised student teacher practicum in a K-8 classroom. Emphasis on the provision of instruction to learners. Covers lesson plan development, teaching strategies, classroom management, assessing the trajectory of student learning, and professionalism. | Prerequisites: Formal acceptance to a Maricopa Community College state approved teacher preparation program or permission of Department or Division. | EDU477 requires a minimum of eight (8) weeks, full-time classroom instruction. | Acad | LAB 6.0 6.0 0.0 | Z |
| EDU487 | 2023 Fall | Professional Seminar: Current Trends in Elementary and Special Education | | Special topics in K-12 (elementary and special) education with an emphasis on current topics and trends. | Prerequisites: Formal acceptance to a Maricopa Community College state approved teacher preparation program or permission of Department or Division. | EDU487 may be repeated for a total of four (4) credit hours. | Acad | LEC 2.0 2.0 2.0 | S |
| EEC205 | 2014 Spring | Early Learning: Instructional Methodologies of Language, Math, Science, Social Studies and the Arts | | Overview and practical application of teaching elementary language, math, science, social studies and the arts. Covers teaching strategies, learning environments, teaching resources, and use of technology. Emphasis on Early Learning Standards (Birth to Age 5), Arizona Academic Standards Kindergarten-Third (K-3) Grade, and State Board of Education Professional Teaching Standards. | Prerequisites: Must hold a provisional or standard elementary or special education teaching certificate or permission of Department or Division. | EEC205 requires an approved field experience. | Acad | LEC 3.0 3.0 3.0 | S |
| EED111 | 2007 Fall | Multimedia and the Early Childhood Education Classroom | | Explore theories and teaching strategies of utilizing multimedia with children birth through 8 years of age. Examine usage of various multimedia in early childhood education settings. Explore ways to integrate appropriate | Prerequisites: None. | | Acad | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | multimedia usage into learning. Explore the use of multimedia and ECE professional growth | | | | | |
| EED115 | 2021 Fall | Digital Literacy for Teaching and Learning in Education | EDU115 | Overview of digital literacy for identifying the skills needed to become informed users of technology to communicate, instruct, create and think critically with digital tools. Explores how emerging technologies are used to teach and learn across varied educational environments (face-to-face, hybrid, online, etc). Includes skills focused on basic computer operations, productivity software, digital citizenship, instructional practices, information literacy and family and professional partnerships. Discusses current trends and related issues about the use of technology and its impacts in P20 education. | Prerequisites: None. | | Acad | LEC 3.0 3.0 3.0 | S |
| EED200 | 2024 Fall | Foundations of Early Childhood Education | | Overview of early childhood education (birth to age eight) in American society, including current issues and responsibilities. Emphasis on issues of professionalism, ethics and program types. Opportunities for students to explore potential career paths. | Prerequisites: None. | EED200 includes practicum designed to explore the field of early childhood education. | Acad | LEC 3.0 3.0 3.0 | S |
| EED205 | 2009 Fall | The Developing Child: Prenatal to Age Eight | | Examination of process of physical, social, emotional, cognitive, language, and literacy development of typical and atypical young children; prenatal through age eight. Includes practical application and fieldwork experience | Prerequisites: None. | Course Attribute(s): General Education Designation: Social and Behavioral Sciences - [SB] | Acad | LEC 3.0 3.0 3.0 | S |
| EED210 | 2008 Summer I | Creative and Cognitive Play | | Benefits of play for children birth to 8 years of age. Inclusion of art, music, and | Prerequisites: A grade of C or better in | | | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | movement used in all dimensions of play. Identify uses and roles in the development of children. | CFS176 ECH176, or CFS235, or EED205. | | | | |
| EED211 | 2008 Summer I | Language Acquisition in the Young Child | | Define speech and language and discuss theories of language acquisition in young children, birth through 8 years of age in a variety of settings. Explore techniques to encourage and support the development of language, assessment techniques and family involvement. | Prerequisites: A grade of C or better in CFS/ECH176, or CFS235, or EED205. | | Acad | LEC 3.0 3.0 3.0 | S |
| EED212 | 2008 Summer I | Guidance, Management and the Environment | | Principles for guiding young children in early care and education environments. Exploration of guidance, management, and how the environment impacts the lives of young children. Includes observation of classrooms of children ages birth to age eight | Prerequisites: None. | | Acad | LEC 3.0 3.0 3.0 | S |
| EED215 | 2008 Summer I | Early Learning: Health, Safety, Nutrition and Fitness | | Consideration of public health issues and safety procedures within early childhood settings, serving young children birth to age eight. Overview of nutritional needs and issues of physical fitness and well-being in young children. Includes field experiences | Prerequisites: None. | | Acad | LEC 3.0 3.0 3.0 | S |
| EED220 | 2019 Summer | Child, Family, Community and Culture | | Examines family, community and cultural influences on development of the young child (birth to age eight). Considers trends and threats to attachment, relationships and cultural identity. Includes social and emotional experiences and their impact on the developing brain. | Prerequisites: None. | | Acad | LEC 3.0 3.0 3.0 | S |
| EED222 | 2008 Summer I | Introduction to the Exceptional Young Child: Birth to Age Eight | | Overview of the exceptional learner (birth - age eight), one who differs from the average | Prerequisites: None. | Course Attribute(s): General Education Designation: Cultural Diversity - [C] General | Acad | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | or the norm, with emphasis on observation, techniques, characteristics, identification, types of programs, and work with families. Issues related to learning exceptionalities, sensory and communication disorders, social and emotional problems, physical and health related disorders, and giftedness. Includes field experience | | Education Designation: Social and Behavioral Sciences - [SB] | | | |
| EED225 | 2021 Fall | Language and Literacy in the Context of Culture and Relationships | | Introduces children's language acquisition and literacy development. Exploration of the relationships among language, literacy, family, culture, and community. Study of educational practices and advocacy opportunities that support language acquisition, literacy development and the preservation of heritage languages. | Prerequisites: None. | Course Attribute(s): General Education Designation: Cultural Diversity - [C] | Acad | LEC 3.0 3.0 3.0 | S |
| EED245 | 2008 Fall | Early Learning: Language Acquisition and Literacy Development | | Overview of language acquisition and development, emergent literacy, early literacy development, and appropriate early experiences with books, reading, and writing for typical and atypical children birth to age eight. Emphasis placed on reading and writing readiness, methods to enhance literacy development, and strategies for selecting and using children's books. | Prerequisites: None. | | Acad | LEC 3.0 3.0 3.0 | S |
| EED250 | 2005 Summer I | Early Literacy Development | | Overview of emergent literacy, early literacy development, and appropriate early experiences with books, reading, and writing. Emphasis placed on reading and writing readiness, methods to enhance literacy | Prerequisites: None. | | Acad | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | development, and strategies for selecting and using children's books | | | | | |
| EED255 | 2019 Spring | Portfolio Development and Writing for the Profession | | Portfolio development, completion, and presentation. Self-assessment and educational short-term and long-term planning, professional development, writing and critical learning included. | Prerequisites: A grade of C or better in completion of twelve (12) credit hours of EED Early Education coursework and permission of Program Coordinator. | | Acad | LEC 3.0 3.0 0.0 | C |
| EED260 | 2019 Spring | Early Childhood Infant/Toddler Internship | | Work experience with infants and toddlers in early care and education settings. 80 hours of designated work per credit. | Prerequisites: Permission of Department or Division. | EED260 may be repeated for a total of six (6) credit hours. | Acad | LAB 1.0 1.0 0.0 | C |
| EED261 | 2019 Spring | Early Childhood Preschool Internship | | Work experience with preschoolers in early care and education settings. 80 hours of designated work per credit. | Prerequisites: Permission of Department or Division. | EED261 may be repeated for a total of six (6) credit hours. | Acad | LAB 1.0 1.0 0.0 | C |
| EED262 | 2019 Spring | Early Childhood Internship: Infant/Toddler | | Work experience with infants and toddlers in early care and education settings. | Prerequisites: Permission of Department or Division. | | | LAB 2.0 2.0 0.0 | C |
| EED263 | 2019 Spring | Early Childhood Internship: Preschool | | Work experience with preschoolers in early care and education settings. | Prerequisites: Permission of Department or Division. | | | LAB 2.0 2.0 0.0 | C |
| EED265 | 2016 Spring | Early Childhood Internship: K-3 | | Supervised student teacher practicum. Emphasis on the provision of instruction to learners. Covers lesson plan development, classroom procedures, classroom management, and educator professionalism. Includes learner preparation, learner engagement, and learner outcome awareness. | Prerequisites: A grade of C or better in EED200, EED212, EED215, EED220, EED222, EED270, EED275, and EED280. | Acad<br><br>Acad | Acad | LAB 4.0 5.0 0.0 | Z |
| EED270 | 2008 Summer I | Early Learning Development: Birth to Age Eight | | Teaching and early learning issues within a cognitive processes context. Covers emotion, memory, and recall as well as early brain development and its relationship to early learning for the young child, birth to age eight. | Prerequisites: A grade of C or better in CFS/ECH176 or CFS205 or CFS235 or EED205 or permission of instructor. | | Acad | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| EED272 | 2005 Fall | Early Childhood Educational Psychology | | Focus on the study and application of psychological principles, theories, and methodologies related to early childhood teaching and learning. Emphasis on early childhood developmental, learning, and motivational theories. Current trends also covered | Prerequisites: None. | | Acad | LEC 3.0 3.0 3.0 | S |
| EED275 | 2014 Spring | Early Learning Curriculum and Instruction: Math and Science | | Overview and practical application of teaching math and science concepts to typical and atypical toddlers, preschoolers, and students Kindergarten-third grade (K-3). Covers teaching strategies, learning environments, teaching resources, and use of technology. Emphasis on overview and practical application of National Association for the Education of Young Children Standards, Early Learning Standards, Arizona Academic Standards (K-3), State Board of Education Professional Teaching Standards and National Council of Teachers of Mathematics Standards. | Prerequisites: A grade of C or better in CFS/ECH176 or EED205. | EED275 requires an approved field experience. | Acad | LEC 3.0 3.0 3.0 | S |
| EED277 | 2014 Spring | Early Learning Curriculum and Instruction: Language Arts, Social Studies, Art, Music and Movement | | Overview and practical application of teaching language arts, social studies, art, music and movement to typical and atypical toddlers, preschoolers, and students K-3. Covers teaching strategies, learning environments, teaching resources, and use of technology. Emphasis on overview and practical application of National Association for the Education of Young Children Standards, Early Learning Standards, | Prerequisites: A grade of C or better in CFS/ECH176 or EED205. | EED277 requires an approved field experience. | Acad | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Arizona Academic Standards (K-3), and State Board of Education Professional Teaching Standards. | | | | | |
| EED278 | 2023 Fall | Early Learning Curriculum and Instruction - Birth to Age Eight | | Considerations and evaluations of curriculum appropriate to the developmental characteristics of learners, birth through eight years. Includes how early childhood standards, philosophies, and program settings relate to the teaching, learning, and assessment process. Includes field experience. | Prerequisites: A grade of C or better in EED200. | | Acad | LEC 3.0 3.0 3.0 | S |
| EED280 | 2008 Summer I | Standards, Observation & Assessment of Typical/Atypical Behaviors of Young Children Birth to Age Eight | | Standards, observation, and assessment of typical and atypical behaviors, overview of standards, observation and assessment methodologies for typical and atypical young children (birth to age eight). Includes ethics, referral and reporting procedures, and collaboration with families and other professionals. | Prerequisites: A grade of C or better in CFS/ECH176 or CFS235 or EED205. | | Acad | LEC 3.0 3.0 3.0 | S |
| EED282AA | 2014 Spring | Service-Learning Experience in Early Childhood Education | | Unpaid Service-Learning (SL) experience, completed with approved community partner. | Prerequisites: Permission of Instructor. | EED282AA may be repeated for a total of six (6) credit hours. Standard grading available according to procedures outlined in catalog. Repeats 6.0 6.0 | Acad | LAB 1.0 1.0 0.0 | L |
| EED282AB | 2014 Spring | Service-Learning Experience in Early Childhood Education | | Unpaid Service-Learning (SL) experience, completed with approved community partner. | Prerequisites: Permission of Instructor. | EED282AB may be repeated for a total of six (6) credit hours. Standard grading available according to procedures outlined in catalog. Repeats 3.0 6.0 | Acad | LAB 2.0 2.0 0.0 | L |
| EED282AC | 2014 Spring | Service-Learning Experience in Early Childhood Education | | Unpaid Service-Learning (SL) experience, completed with approved community partner. | Prerequisites: Permission of Instructor. | EED282AC may be repeated for a total of six (6) credit hours. Standard grading available according to procedures outlined in catalog. Repeats 2.0 6.0 | Acad | LAB 3.0 3.0 0.0 | L |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| EEE120 | 2019 Fall | Digital Design Fundamentals | CSC120 | Number systems, conversion methods, binary and complement arithmetic, Boolean switching algebra and circuit minimization techniques. Analysis and design of combinational logic, flip-flops, simple counters, registers, ROMs, PLDs, synchronous and asynchronous sequential circuits, and state reduction techniques. Building physical circuits. | Prerequisites: None. Corequisites: CSC100 or CSC110 or permission of Instructor. | | Acad | L+L 4.0 6.0 6.0 | T |
| EEE202 | 2019 Fall | Circuits and Devices | | Introduction to circuits and devices. Component models, transient analysis, steady state analysis, Laplace transform, and active and passive filter networks. | Prerequisites: A grade of C or better in PHY116 or PHY131. Corequisites: MAT276 or permission of Instructor. | | Acad | LEC 5.0 4.0 4.0 LAB 0.0 3.0 3.0 | T |
| EEE203 | 2023 Fall | Signals and Systems | | Introduction to continuous and discrete time signal and system analysis, linear systems, Fourier, and z-transforms. | Prerequisites: A grade of C or better in EEE202. | | | L+L 3.0 5.0 5.0 | T |
| EEE220 | 2018 Fall | Programming for Computer Engineering | CSC220 | Introduction to procedural programming (C/C++) and hardware description language (VHDL). | Prerequisites: A grade of C or better in ((EEE120 or CSC120) and CSC205) or permission of Instructor. | | Acad | L+L 3.0 5.0 5.0 | T |
| EEE230 | 2018 Fall | Computer Organization and Assembly Language | CSC230 | Assembly language programming including input/output (I/O) programming and exception/interrupt handling. Register-level computer organization, I/O interfaces, assemblers, and linkers. Processor organization and design, data path, control, pipelining, and input/output. Memory organization with cache and virtual memory. | Prerequisites: A grade of C or better in [(CSC100 or CSC110) and CSC120 EEE120] or permission of Instructor. | Acad | Acad | L+L 4.0 5.0 5.0 | T |
| EEG115 | 2015 Spring | Biomedical Electronic Technology I | | Review of basic principles of math and physics as applied to Biomedical Electronic | Prerequisites: Admission to the Electroneurodiagnostic | | Occ | LEC 2.0 2.0 2.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | technology and monitoring applications within the fields of electroneurodiagnostic technology and polysomnography technology. | Technology program or Polysomnographic Technology program. | | | | |
| EEG116 | 2016 Fall | Biomedical Electronic Technology II | | Electronic concepts, electrical connections including grounding, and electrical and patient safety as applied to medical electronic technology and monitoring applications within the fields of electroneurodiagnostic technology and polysomnography technology. | Prerequisites: Admission to the Electroneurodiagnostics Technology program or the Polysomnographic Technology program. | | Occ | LEC 3.0 3.0 3.0 | S |
| EEG130 | 2018 Fall | Introduction to EEG | | Introduction to EEG (Electroneurodiagnostic) theory, with emphasis on instrumentation, testing protocol and major disorders for which EEG is diagnostically useful. Introduction and hands on experience with the 10/20 International Electrode Application System. | Prerequisites: Admission to the Electroneurodiagnostics Program or admission to Polysomnographic Technology Program. | | Occ | L+L 4.0 4.0 4.0 | T |
| EEG140 | 2018 Fall | Basic Electroneurodiagnostic Skills | | Theory and clinical procedures germane to the electroneurodiagnostic (EEG) department. Stress on hospital orientation, job competency, professional growth, and interpersonal communications with staff and patients. | Prerequisites: Admission to the Electroneurodiagnostic (END) Technology program. Corequisites: EEG140LL. | | | LEC 1.0 1.0 1.0 | S |
| EEG140LL | 2018 Fall | Basic Electroneurodiagnostic Skills Laboratory | | Practical application, and clinical procedures germane to the electroneurodiagnostic (EEG) department. Stress on hospital orientation, job competency, professional growth, and interpersonal communications with staff and patients. | Prerequisites: Admission to the Electroneurodiagnostic (END) Technology program. Corequisites: EEG140. | Occ | Occ | LAB 1.0 3.0 3.0 | T |
| EEG200 | 2012 Spring | Clinical Rotation I | | Clinical application of Electroneurodiagnostic (EEG) skills and knowledge acquired | Prerequisites: Admission to the | | | LAB 3.0 18.0 0.0 | C |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | during required program classroom and lab courses. Full supervision of tests performed with progression to independent testing. | Electroneurodiagnostics Program. | | | | |
| EEG201 | 2018 Fall | Intermediate EEG | | Expanded study of neurological and neurophysiological medicine. Discuss the studies in cerebrovascular and central nervous system lesions, metabolic and infectious disease, trauma, congenital, and pediatric disorders. Extensive record review. Evaluate the normal and abnormal electrocardiogram (ECG) patterns related to electroencephalogram (EEG) testing. | Prerequisites: Admission to the Electroneurodiagnostic (END) Technology program. Corequisites: EEG201LL. | Occ | | LEC 3.0 3.0 3.0 | S |
| EEG201LL | 2018 Fall | Intermediate EEG Laboratory | | Expanded study and application of neurological and neurophysiological medicine. Studies in cerebrovascular and central nervous system lesions, metabolic and infectious disease, trauma, congenital, and pediatric disorders. Extensive record review. Normal and abnormal electrocardiogram (ECG) patterns related to electroencephalogram (EEG) testing. | Prerequisites: Admission to the Electroneurodiagnostic (END) Technology program. Corequisites: EEG201. | | Occ | LAB 1.0 3.0 3.0 | T |
| EEG205 | 2018 Fall | Applied Evoked Potentials and Nerve Conduction Studies | | Theoretical aspects of Evoked Potentials (EP), mainly Visual Evoked Response (VER), Brain Auditory Evoked Response (BAER), and Somatosensory Evoked Potential (SSEP) tests. EP instrumentation, recording techniques and data analysis of electrical activity of the nervous system elicited by using selected physical stimuli | Prerequisites: Admission to the Electroneurodiagnostic (END) Technology program. Corequisites: EEG205LL. | | | LEC 1.0 1.0 1.0 | S |



Occ

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | (evoked potentials) and concepts of signal averaging, (in accordance with the most recent American Clinical Neurophysiology Society (ACNS) guidelines on Evoked Potentials.) | | | | | |
| EEG205LL | 2018 Fall | Applied Evoked Potentials and Nerve Conduction Studies Laboratory | | Practical aspects of Evoked Potentials (EP), mainly Visual Evoked Response (VER), Brain Auditory Evoked Response (BAER), and Somatosensory Evoked Potential (SSEP) tests. EP instrumentation, recording techniques and data analysis of electrical activity of the nervous system elicited by using selected physical stimuli (evoked potentials) and concepts of signal averaging, (in accordance with the most recent American Clinical Neurophysiology Society (ACNS) guidelines on Evoked Potentials.) | Prerequisites: Admission to the Electroneurodiagnostic (END) Technology program. Corequisites: EEG205. | Occ | | LAB 1.0 3.0 3.0 | T |
| EEG206 | 2018 Fall | Advanced EEG | | Comprehensive study of neurological and neurophysiological medicine. Studies in cerebrovascular and central nervous system lesions, metabolic and infectious disease, trauma and congenital and pediatric disorders. Normal and abnormal pattern review. Case presentations. Board examination review. | Prerequisites: Admission to the Electroneurodiagnostic (END) program. Corequisites: EEG206LL. | | | LEC 1.0 1.0 1.0 | S |
| EEG206LL | 2018 Fall | Advanced EEG Laboratory | | Comprehensive advanced study and application of methods of neurological and neurophysiological medicine. Studies in cerebrovascular and central nervous system lesions, metabolic and infectious disease, trauma and | Prerequisites: Admission to the Electroneurodiagnostic (END) Technology program. Corequisites: EEG206. | Occ | | LAB 1.0 3.0 3.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | congenital and pediatric disorders. Normal and abnormal pattern review. Case presentations. Board examination review in the laboratory setting. | | | | | |
| EEG207 | 2018 Fall | Electroneurodiagnostic Record Review | | Normal and abnormal pattern review for adults and pediatric patients, Nerve Conduction Velocity (NCV) pattern recognition and review, special procedures, Long Term Monitoring (LTM), and Intraoperative Monitoring (IOM) pattern recognition and review. | Prerequisites: Admission to the Electroneurodiagnostics (END) Technology Program. | | Occ | L+L 4.0 4.0 4.0 | T |
| EEG210 | 2012 Summer I | Applied Neurophysiology | | Introduction to central nervous system. Emphasis on conduction pathways, anatomy, and blood supply. Survey of neurotransmitters, pharmacology and current research. | Prerequisites: Admission to the Electroneurodiagnostic Technology program or Polysomnographic Technology program. | | Occ | LEC 3.0 3.0 3.0 | S |
| EEG211 | 2012 Spring | Clinical Rotation II | | Clinical application of Electroneurodiagnostic (EEG) skills and knowledge acquired during didactic courses and clinical practicums. Full supervision of tests performed with progression to independent testing. | Prerequisites: Admission to the Electroneurodiagnostics Program. | | Occ | LAB 3.0 18.0 0.0 | C |
| EEG220 | 2012 Spring | Clinical Rotation III | | Advanced clinical application of Electroneurodiagnostic (EEG) skills and knowledge acquired during didactic courses and clinical practicums. Full supervision of tests performed with progression to independent testing. | Prerequisites: Admission to the Electroneurodiagnostics Program. | | Occ | LAB 3.0 18.0 0.0 | C |
| EEG282AA | 2018 Fall | Volunteerism for Electroneurodiagnostic Technology: Service Learning Experience | | Service learning field experience within private/public agencies, educational institution, and citizen volunteer groups. | Prerequisites: Permission of Instructor. | EEG282AA may be repeated for a total of six (6) credit hours. Standard grading available according to procedures outlined in catalog. | Occ | LAB 1.0 1.0 1.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| EEP224 | 2013 Fall | Child Development: Prenatal to Age Eight | | Examination of process of physical, social, emotional, cognitive, language, and literacy development of typical and atypical young children; prenatal through age eight. Consideration of public health issues and safety procedures within early childhood settings. Overview of nutritional needs and issues of physical fitness and well-being in typical and atypical young children. Includes practical application and fieldwork experience. | Prerequisites: Baccalaureate Degree and formal acceptance to a Maricopa Community College state approved post-baccalaureate teacher preparation program or permission of Department or Division. | Acad | | LEC 3.0 3.0 3.0 | S |
| EEP240 | 2013 Fall | Early Childhood Foundations | | Overview of early childhood education (birth to age eight) in American society, including current issues and responsibilities. Emphasis on issues of professionalism, ethics and program types. Opportunities for students to explore potential career paths. Includes field experience. | Prerequisites: Baccalaureate Degree and formal acceptance to a Maricopa Community College state approved post-baccalaureate teacher preparation program or permission of Department or Division. | | | LEC 3.0 3.0 3.0 | S |
| EEP242 | 2013 Fall | Early Childhood Guidance and Management | | Principles for guiding young children in early care and education environments. Exploration of guidance, management, and how the environment impacts the lives of typical and atypical young children. Includes observation of classrooms of children ages birth to age eight. | Prerequisites: Baccalaureate Degree and formal acceptance to a Maricopa Community College state approved post-baccalaureate teacher preparation program or permission of Department or Division. | Acad | | LEC 3.0 3.0 3.0 | S |
| EEP244 | 2013 Fall | Early Childhood Introduction to the Exceptional Young Child | | Overview of the exceptional learner (birth to age eight), one who differs from the average or the norm, with emphasis on observation, techniques, characteristics, identification, types of programs, and work with families. Issues related to learning exceptionalities, sensory and communication | Prerequisites: Baccalaureate Degree and formal acceptance to a Maricopa Community College state approved post-baccalaureate teacher preparation program or permission of Department or Division. | Acad | | LEC 3.0 3.0 3.0 | S |



Acad

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | disorders, social and emotional problems, physical and health related disorders, and giftedness. Includes field experience. | | | | | |
| EEP246 | 2013 Fall | Early Childhood Culture, Community, Family and the Child | | Examines family, community, and cultural influences on development of the young child birth to third grade. Considers trends and threats to attachment, relationships and cultural identity. Includes social and emotional experiences and their impact on the developing brain. | Prerequisites: Baccalaureate Degree and formal acceptance to a Maricopa Community College state approved post-baccalaureate teacher preparation program or permission of Department or Division. | | | LEC 3.0 3.0 3.0 | S |
| EEP260 | 2008 Summer I | Early Childhood Curriculum and Methods of Math - Birth to Age Eight | | Overview and practical application of teaching math concepts to toddlers, preschoolers, and students Kindergarten through third grade (K-3). Covers teaching strategies, learning environments, teaching resources, and use of technology. Emphasis on overview and practical application of Early Learning Standards, Arizona Academic Standards (K-3), State Board of Education Professional Teaching Standards and National Council of Teachers of Mathematics Standards. | Prerequisites: Baccalaureate Degree and formal admission to a state approved post-baccalaureate early childhood teacher preparation program. | EEP260 requires an approved school-based practicum.<br><br>Acad | Acad | LEC 3.0 3.0 3.0 | S |
| EEP262 | 2014 Spring | Early Childhood Curriculum and Methods of Science - Birth to Age Eight | | Overview and practical application of teaching science concepts to toddlers, preschoolers, and students Kindergarten and third grade (K-3). Covers teaching strategies, learning environments, teaching resources, and use of technology. Emphasis on overview and practical application of Early Learning Standards, Arizona Academic | Prerequisites: Baccalaureate Degree and formal admission to a state approved post-baccalaureate early childhood teacher preparation program. | EEP262 requires an approved field experience. | Acad | LEC 2.0 2.0 2.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Standards K-3, State Board of Education Professional Teaching Standards. | | | | | |
| EEP264 | 2014 Spring | Early Childhood Curriculum and Methods of Social Studies - Birth to Age Eight | | Overview and practical application of teaching social studies to toddlers, preschoolers, and students K-3. Covers teaching strategies, learning environments, and teaching resources. Emphasis on overview and practical application of Early Learning Standards, Arizona Academic Standards Kindergarten through third grade (K-3). | Prerequisites: accalaureate Degree and formal admission to a state approved post-baccalaureate early childhood teacher preparation program. | EEP264 requires an approved field experience. | Acad | LEC 1.0 1.0 1.0 | S |
| EEP266 | 2008 Summer I | Early Childhood Curriculum and Methods in Language Arts - Birth to Age Eight | | Overview and practical application of teaching Language Arts concepts to toddlers, preschoolers, and students in Kindergarten through third grade (K-3). Covers communication skills of reading, writing, listening and speaking, interpreting visual messages and creating visual messages. Emphasis on overview and practical application of Early Learning Standards, Arizona Language Arts Standards (K-3), and State Board of Education Professional Teaching Standards | Prerequisites: Baccalaureate Degree and formal admission to a state approved post-baccalaureate early childhood teacher preparation program. | | Acad | LEC 1.0 1.0 1.0 | S |
| EEP268 | 2008 Summer I | Early Childhood Curriculum and Methods in The Arts - Birth to Age Eight | | Exploration of fine arts integration, birth to age 8, in early childhood settings. Focus on the impact on life-long learning and education goal achievement when curriculum includes fine arts. Arizona art standards of dance, visual, theater and music also covered. | Prerequisites: Baccalaureate Degree and formal admission to a post-baccalaureate early childhood teacher preparation program. | | Acad | LEC 1.0 1.0 1.0 | S |
| EEP276 | 2008 Summer I | Standards, Observation and Assessment of Typical and Atypical Behaviors Birth to Age Eight | | Observation and assessment of typical and atypical behaviors, overview of | Prerequisites: A grade of C or better in EEP260, EEP262, | | | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | standards, observation and assessment methodologies for typical and atypical young children birth to age eight. Includes ethics, referral and reporting procedures, and collaboration with families and other professionals. | EEP264, EEP266, EEP268 and Baccalaureate Degree and formal admission to a state approved post-baccalaureate early childhood teacher preparation program. | | | | |
| EEP288 | 2009 Spring | Student Teaching Lab - Early Childhood | | Supervised (K-3) student teacher practicum. Emphasis on the provision of instruction to learners. Covers lesson plan development, classroom procedures, classroom management, and educator professionalism. Includes learner preparation, learner engagement, and learner outcome awareness. | Prerequisites: Baccalaureate Degree and formal admission to a state approved post-baccalaureate teacher preparation program and a grade of C or better in (EDU220, EDU251, EEP240, EEP242, EEP244, EEP246 and EEP276) and permission of Department or Division. | | | LAB 4.0 5.0 0.0 | Z |
| EEP289 | 2009 Spring | Internship: Early Childhood Infant, Toddler, Preschool | | Supervised field experience with infants, toddlers and/or preschoolers in early care and education settings. | Prerequisites: Baccalaureate Degree and formal admission to a state approved post-baccalaureate early childhood teacher preparation program and (EDU220 EDU251 EEP240 EEP242 EEP244 EEP246 and EEP276) and permission of Department or Division. | Acad | | LEC 4.0 4.0 0.0 | Z |
| EEP311 | 2023 Fall | Foundations of Dual Language Learning - Birth to Age Eight | | Examination of the needs of dual language learners birth to grade three. Includes comparison and evaluation of various language educational models with a focus on asset based behaviors and expectations, integrated and targeted dual language instruction. Covers legal and historical foundations and current issues. | Prerequisites: A grade of C or better in EED200 or permission of Instructor and (formal admission to an undergraduate educator preparation program or declaration of the BA in Early Childhood Education - Dual Language program or | Acad | | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | permission of Department or Division). | | | | |
| EEP312 | 2023 Fall | Family, Community, and School Collaboration for Dual Language Learners - Birth to Age Eight | | Examines multiple influences on the development of the dual language learner (birth to age eight). Considers foundational structure provided by and reinforced by the family. Recognizes multiple messages of value and power communicated through community structures. Includes strategies for relationship building between families, school, and community with a long term goal of encouraging dual language learners. | Prerequisites: A grade of C or better in EED200 or permission of Instructor and (formal admission to an undergraduate educator preparation program or declaration of the BA in Early Childhood Education - Dual Language program or permission of Department or Division). | | Acad | LEC 3.0 3.0 3.0 | S |
| EEP313 | 2023 Fall | Bilingual and ESL Methods - Birth to Age Eight | | Culturally responsive strategies for working with the dual language learners in early childhood settings. Components of dual language curriculum content and learning techniques focusing on bilingual and English as a Second Language (ESL) strategies. | Prerequisites: A grade of C or better in EED200 or permission of Instructor and (formal admission to an undergraduate educator preparation program or declaration of the BA in Early Childhood Education - Dual Language program or permission of Department or Division). | | | LEC 3.0 3.0 3.0 | S |
| EEP314 | 2023 Fall | Teaching of Reading and Writing for Dual Language Learners - Birth to Age Eight | | Introduction to teaching reading and writing for dual language learners in early childhood settings. Includes second language acquisition terminology, theories, and strategies. Emphasis on instructional and assessment strategies as well as reading comprehension and writing skills. | Prerequisites: A grade of C or better in EED200 or permission of Instructor and (formal admission to an undergraduate educator preparation program or declaration of the BA in Early Childhood Education - Dual Language program or permission of Department or Division). | Acad | | LEC 3.0 3.0 3.0 | S |

Acad

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| EEP315 | 2023 Fall | Social Studies and Arts Methods for Dual Language Learners - Birth to Age Eight | | Overview and practical application of teaching social studies and arts for dual language learners in early childhood settings. Covers teaching strategies, learning environments, and teaching resources. Emphasis on overview of relevant guidelines and standards for children birth through third grade (pre-K-3). | Prerequisites: A grade of C or better in EED200 or permission of Instructor and (formal admission to an undergraduate educator preparation program or declaration of the BA in Early Childhood Education - Dual Language program or permission of Department or Division). | | | LEC 3.0 3.0 3.0 | S |
| EEP316 | 2023 Fall | Math and Science Methods for Dual Language Learners - Birth to Age Eight | | Overview and practical application of teaching math and science for dual language learners in early childhood settings. Covers teaching strategies, learning environments, and teaching resources. Emphasis on overview of relevant guidelines and standards for children birth through third grade (pre-K-3). | Prerequisites: A grade of C or better in EED200 or permission of Instructor and (formal admission to an undergraduate educator preparation program or declaration of the BA in Early Childhood Education - Dual Language program or permission of Department or Division). | EEP316 requires an approved field experience. For some employment and field experiences (including internship courses), students will be required to have a current Identity Verified Print (IVP) Fingerprint Clearance Card and a current TB test. | Acad | LEC 3.0 3.0 3.0 | S |
| EEP411 | 2023 Fall | Sheltered Instruction for Dual Language Settings - Birth to Age Eight | | Analysis of sheltered instruction strategies designed to serve the needs of dual language learners ages birth to eight. Includes comparison and evaluation of various language educational models with a focus on asset based behaviors and expectations as well as integrated and targeted language instruction. | Prerequisites: A grade of C or better in EEP311 or permission of Instructor and (formal admission to an undergraduate educator preparation program or declaration of the BA in Early Childhood Education - Dual Language program or permission of Department or Division). | | | LEC 3.0 3.0 3.0 | S |
| EEP412 | 2023 Fall | Assessment of Dual Language Learners - Birth to Age Eight | | Teaching and assessment of dual language learners ages birth to eight. Covers differentiated instruction, special education needs vs. language needs, learning environments and utilizing | Prerequisites: A grade of C or better in EEP311 or permission of Instructor and (formal admission to an undergraduate educator preparation program or | Acad | Acad | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | ongoing assessment of student learning to guide instruction. | declaration of the BA in Early Childhood Education - Dual Language program or permission of Department or Division). | | | | |
| EEP413 | 2023 Fall | Reading Instructional Practices, Interventions, and Assessments - Birth through Adolescence | | Overview of instructional practices, interventions, and assessments associated with reading instruction and the systematic teaching of phonics to children from birth through adolescence. Includes historical methods and current research in reading; research-based instructional practices; research based assessments and possible interventions; support provided by Multi-Tiered Systems of Support (MTSS) and Response to Intervention (RTI). Focus on reading disabilities (dyslexia) and laws associated with reading disabilities for children from birth through adolescence. | Prerequisites: A grade of C or better in EEP311 or permission of Instructor and (formal admission to an undergraduate educator preparation program or declaration of the BA in Early Childhood Education - Dual Language program or permission of Department or Division). | | Acad | LEC 3.0 3.0 3.0 | S |
| EEP414 | 2023 Fall | Science of Reading and Systematic Phonics Instruction for Birth through Adolescence | | Overview of the science of reading with an emphasis on explicit instructional practices associated with research-based, systematic phonics instruction for children from birth through adolescence. Covers research-based on the science of reading related to the teaching of reading in the pre-K-8 school setting to include understanding reading research; essential components of reading instruction; implementation of effective methods for reading instruction; and alignment of reading instruction to systematic phonics instruction. | Prerequisites: A grade of C or better in EEP311 or permission of Instructor and (formal admission to an undergraduate educator preparation program or declaration of the BA in Early Childhood Education - Dual Language program or permission of Department or Division). | EEP414 requires an approved field experience. For some employment and field experiences (including internship courses), students will be required to have a current Identity Verified Print (IVP) Fingerprint Clearance Card and a current TB test. | Acad | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| EEP415 | 2023 Fall | Student Teaching in a Dual Language K-3 Setting | | Supervised (K-3) student teacher practicum in a dual language setting. Emphasis on the provision of instruction to learners. Covers lesson plan development, classroom procedures, classroom management, and educator professionalism. Includes learner preparation, learner engagement, and learner outcome awareness. | Prerequisites: A grade of C or better in EEP311 or permission of Instructor and (formal admission to an undergraduate educator preparation program or declaration of the BA in Early Childhood Education - Dual Language program or permission of Department or Division). | EEP415 students will be required to have a current Identity Verified Print (IVP) Fingerprint Clearance Card and a current TB test for some employment and field experiences (including internship courses). | Acad | LEC 3.0 3.0 3.0 | S |
| EFE232 | 2023 Fall | Mild-Moderate Disabilities Student Teaching | | Supervised student teaching. Emphasis on the provision of instruction to learners. Covers lesson plan development, classroom procedures, classroom management, and educator professionalism. Includes learner preparation, learner engagement, and learner outcome awareness. | Prerequisites: Formal admission to an undergraduate teacher preparation program and permission of Department or Division. | | | LAB 8.0 5.0 0.0 | Z |
| EFE260 | 2009 Summer I | Student Teaching Lab K-12 - Art | | Supervised student teacher practicum. Emphasis on the provision of K-12 art instruction to learners. Covers lesson plan development, classroom procedures, classroom management, and educator professionalism. Includes learner preparation, learner engagement, and learner outcome awareness. | Prerequisites: Baccalaureate Degree and formal admission to a state-approved post-baccalaureate teacher preparation program and permission of Department or Division. | Acad | Acad | LAB 12.0 9.0 0.0 | Z |
| EFE260AC | 2009 Summer I | Intern Certificate Student Teaching Lab K-12 - Art Education I | | Supervised student teacher practicum. Emphasis on the provision of K-12 art instruction to learners. Covers lesson plan development, classroom procedures, classroom management, and educator professionalism. Includes learner preparation, learner engagement, and learner outcome awareness. | Prerequisites: Baccalaureate Degree and formal acceptance of a specified teacher prep two year program plan by an Arizona Department of Education approved college program and the partnering school district. | | Acad | LAB 3.0 9.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| EFE260AD | 2009 Summer I | Intern Certificate Student Teaching Lab K-12 - Art Education II | | Supervised student teacher practicum. Emphasis on the provision of K-12 art instruction to learners. Covers lesson plan development, classroom procedures, classroom management, and educator professionalism. Includes learner preparation, learner engagement, and learner outcome awareness. | Prerequisites: Baccalaureate Degree and formal acceptance of a specified teacher prep two year program plan by an Arizona Department of Education approved college program the partnering school district EFE260AC and a minimum of 25% successful completion of all designated required course work. | | Acad | LAB 3.0 9.0 0.0 | Z |
| EFE260AE | 2009 Summer I | Intern Certificate Student Teaching Lab K-12 - Art Education III | | Supervised student teacher practicum. Emphasis on the provision of K-12 art instruction to learners. Covers lesson plan development, classroom procedures, classroom management, and educator professionalism. Includes learner preparation, learner engagement, and learner outcome awareness. | Prerequisites: Baccalaureate Degree and formal acceptance of a specified teacher prep two year program plan by an Arizona Department of Education approved college program the partnering school district EFE260AD and a minimum of 50% successful completion of all designated required course work. | | Acad | LAB 3.0 9.0 0.0 | Z |
| EFE260AF | 2009 Summer I | Intern Certificate Student Teaching Lab K-12 - Art Education IV | | Supervised student teacher practicum. Emphasis on the provision of K-12 art instruction to learners. Covers lesson plan development, classroom procedures, classroom management, and educator professionalism. Includes learner preparation, learner engagement, and learner outcome awareness. | Prerequisites: Baccalaureate Degree and formal acceptance of a specified teacher prep two year program plan by an Arizona Department of Education approved college program the partnering school district EFE260AE and a minimum of 75% successful completion of all designated required course work. | | Acad | LAB 3.0 9.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| EFE261 | 2009 Summer I | Student Teaching Lab K-12 - Dance | | Supervised student teacher practicum. Emphasis on the provision of K-12 dance instruction to learners. Covers lesson plan development, classroom procedures, classroom management, and educator professionalism. Includes learner preparation, learner engagement, and learner outcome awareness. | Prerequisites: Baccalaureate Degree and formal admission to a state-approved post-baccalaureate teacher preparation program and permission of Department or Division. | | Acad | LAB 12.0 9.0 0.0 | Z |
| EFE261AC | 2009 Summer I | Intern Certificate Student Teaching Lab K-12 - Dance Education I | | Supervised student teacher practicum. Emphasis on the provision of K-12 dance instruction to learners. Covers lesson plan development, classroom procedures, classroom management, and educator professionalism. Includes learner preparation, learner engagement, and learner outcome awareness. | Prerequisites: Baccalaureate Degree and formal acceptance of a specified teacher prep two year program plan by an Arizona Department of Education approved college program and the partnering school district. | | Acad | LAB 3.0 9.0 0.0 | Z |
| EFE261AD | 2009 Summer I | Intern Certificate Student Teaching Lab K-12 - Dance Education II | | Supervised student teacher practicum. Emphasis on the provision of K-12 dance instruction to learners. Covers lesson plan development, classroom procedures, classroom management, and educator professionalism. Includes learner preparation, learner engagement, and learner outcome awareness. | Prerequisites: Baccalaureate Degree and formal acceptance of a specified teacher prep two year program plan by an Arizona Department of Education approved college program and the partnering school district EFE261AC and a minimum of 25% successful completion of all designated required course work. | | Acad | LAB 3.0 9.0 0.0 | Z |
| EFE261AE | 2009 Summer I | Intern Certificate Student Teaching Lab K-12 - Dance Education III | | Supervised student teacher practicum. Emphasis on the provision of K-12 dance instruction to learners. Covers lesson plan development, classroom procedures, classroom management, and educator professionalism. Includes learner preparation, | Prerequisites: Baccalaureate Degree and formal acceptance of a specified teacher prep two year program plan by an Arizona Department of Education approved college program and the | | Acad | LAB 3.0 9.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | learner engagement, and learner outcome awareness. | partnering school district EFE261AD and a minimum of 50% successful completion of all designated required course work. | | | | |
| EFE261AF | 2009 Summer I | Intern Certificate Student Teaching Lab K-12 - Dance Education IV | | Supervised student teacher practicum. Emphasis on the provision of K-12 dance instruction to learners. Covers lesson plan development, classroom procedures, classroom management, and educator professionalism. Includes learner preparation, learner engagement, and learner outcome awareness. | Prerequisites: Baccalaureate Degree and formal acceptance of a specified teacher prep two year program plan by an Arizona Department of Education approved college program and the partnering school district EFE261AE and a minimum of 75% successful completion of all designated required course work. | | Acad | LAB 3.0 9.0 0.0 | Z |
| EFE262 | 2009 Summer I | Student Teaching Lab K-12 - Drama | | Supervised student teacher practicum. Emphasis on the provision of K-12 drama instruction to learners. Covers lesson plan development, classroom procedures, classroom management, and educator professionalism. Includes learner preparation, learner engagement, and learner outcome awareness. | Prerequisites: Baccalaureate Degree and formal admission to a state-approved post-baccalaureate teacher preparation program and permission of Department or Division. | | Acad | LAB 12.0 9.0 0.0 | Z |
| EFE262AC | 2009 Summer I | Intern Certificate Student Teaching Lab K-12 - Drama Education I | | Supervised student teacher practicum. Emphasis on the provision of K-12 drama instruction to learners. Covers lesson plan development, classroom procedures, classroom management, and educator professionalism. Includes learner preparation, learner engagement, and learner outcome awareness. | Prerequisites: Baccalaureate Degree and formal acceptance of a specified teacher prep two year program plan by an Arizona Department of Education approved college program and the partnering school district. | | Acad | LAB 3.0 9.0 0.0 | Z |
| EFE262AD | 2009 Summer I | Intern Certificate Student Teaching Lab K-12 - Drama Education II | | Supervised student teacher practicum. Emphasis on the provision of K-12 drama | Prerequisites: Baccalaureate Degree and formal acceptance | | | LAB 3.0 9.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | instruction to learners. Covers lesson plan development, classroom procedures, classroom management, and educator professionalism. Includes learner preparation, learner engagement, and learner outcome awareness. | of a specified teacher prep two year program plan by an Arizona Department of Education approved college program and the partnering school district EFE262AC and a minimum of 25% successful completion of all designated required course work. | | | | |
| EFE262AE | 2009 Summer I | Intern Certificate Student Teaching Lab K-12 - Drama Education III | | Supervised student teacher practicum. Emphasis on the provision of K-12 drama instruction to learners. Covers lesson plan development, classroom procedures, classroom management, and educator professionalism. Includes learner preparation, learner engagement, and learner outcome awareness. | Prerequisites: Baccalaureate Degree and formal acceptance of a specified teacher prep two year program plan by an Arizona Department of Education approved college program and the partnering school district EFE262AD and a minimum of 50% successful completion of all designated required course work. | | Acad | LAB 3.0 9.0 0.0 | Z |
| EFE262AF | 2009 Summer I | Intern Certificate Student Teaching Lab K-12 - Drama Education IV | | Supervised student teacher practicum. Emphasis on the provision of K-12 drama instruction to learners. Covers lesson plan development, classroom procedures, classroom management, and educator professionalism. Includes learner preparation, learner engagement, and learner outcome awareness. | Prerequisites: Baccalaureate Degree and formal acceptance of a specified teacher prep two year program plan by an Arizona Department of Education approved college program and the partnering school district EFE262AE and a minimum of 75% successful completion of all designated required course work. | | Acad | LAB 3.0 9.0 0.0 | Z |
| EFE263 | 2009 Summer I | Student Teaching Lab K-12 - Music | | Supervised student teacher practicum. Emphasis on the provision of K-12 music instruction to learners. Covers | Prerequisites: Baccalaureate Degree and formal admission to a state-approved post- | | Acad | LAB 12.0 9.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | lesson plan development, classroom procedures, classroom management, and educator professionalism. Includes learner preparation, learner engagement, and learner outcome awareness. | baccalaureate teacher preparation program and permission of Department or Division. | | | | |
| EFE263AC | 2009 Summer I | Intern Certificate Student Teaching Lab K-12 - Music Education I | | Supervised student teacher practicum. Emphasis on the provision of K-12 music instruction to learners. Covers lesson plan development, classroom procedures, classroom management, and educator professionalism. Includes learner preparation, learner engagement, and learner outcome awareness. | Prerequisites: Baccalaureate Degree and formal acceptance of a specified teacher prep two year program plan by an Arizona Department of Education approved college program and the partnering school district. | | Acad | LAB 3.0 9.0 0.0 | Z |
| EFE263AD | 2009 Summer I | Intern Certificate Student Teaching Lab K-12 - Music Education II | | Supervised student teacher practicum. Emphasis on the provision of K-12 music instruction to learners. Covers lesson plan development, classroom procedures, classroom management, and educator professionalism. Includes learner preparation, learner engagement, and learner outcome awareness. | Prerequisites: Baccalaureate Degree and formal acceptance of a specified teacher prep two year program plan by an Arizona Department of Education approved college program and the partnering school district EFE263AC and a minimum of 25% successful completion of all designated required course work. | | Acad | LAB 3.0 9.0 0.0 | Z |
| EFE263AE | 2009 Summer I | Intern Certificate Student Teaching Lab K-12 - Music Education III | | Supervised student teacher practicum. Emphasis on the provision of K-12 music instruction to learners. Covers lesson plan development, classroom procedures, classroom management, and educator professionalism. Includes learner preparation, learner engagement, and learner outcome awareness. | Prerequisites: Baccalaureate Degree and formal acceptance of a specified teacher prep two year program plan by an Arizona Department of Education approved college program and the partnering school district EFE263AD and a minimum of 50% successful completion | | | LAB 3.0 9.0 0.0 | Z |



Acad

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | of all designated required course work. | | | | |
| EFE263AF | 2009 Summer I | Intern Certificate Student Teaching Lab K-12 - Music Education IV | | Supervised student teacher practicum. Emphasis on the provision of K-12 music instruction to learners. Covers lesson plan development, classroom procedures, classroom management, and educator professionalism. Includes learner preparation, learner engagement, and learner outcome awareness. | Prerequisites: Baccalaureate Degree and formal acceptance of a specified teacher prep two year program plan by an Arizona Department of Education approved college program and the partnering school district EFE263AE and a minimum of 75% successful completion of all designated required course work. | | Acad | LAB 3.0 9.0 0.0 | Z |
| EFE291 | 2015 Fall | Special Education: Mild-Moderate Student Teaching | | Supervised student teaching. Emphasis on the provision of instruction to learners. Covers lesson plan development, classroom procedures, classroom management, and educator professionalism. Includes learner preparation, learner engagement, and learner outcome awareness. | Prerequisites: Baccalaureate Degree and formal admission to a state approved post-baccalaureate teacher preparation program and (a grade of C or better in EDU223AF and EDU293) and permission of Department or Division. | | | LAB 8.0 5.0 0.0 | Z |
| EFE291AC | 2015 Fall | Special Education: Mild-Moderate Student Teaching I | | Supervised student teaching. Emphasis on the provision of instruction to learners. Covers lesson plan development, classroom procedures, classroom management, and educator professionalism. Includes learner preparation, learner engagement, and learner outcome awareness. | Prerequisites: Baccalaureate Degree and formal admission to a state approved post-baccalaureate teacher preparation program and (a grade of C or better in EDU223AF and EDU293) and permission of Department or Division. | Acad | | LAB 2.0 6.0 0.0 | Z |
| EFE291AD | 2015 Fall | Special Education: Mild-Moderate Student Teaching II | | Supervised student teaching. Emphasis on the provision of instruction to learners. Covers lesson plan development, classroom procedures, classroom management, and educator professionalism. | Prerequisites: Baccalaureate Degree and formal admission to a state approved post-baccalaureate teacher preparation program and (a grade of C or | Acad | | LAB 2.0 6.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Includes learner preparation, learner engagement, and learner outcome awareness. | better in EDU223AF and EDU293) and permission of Department or Division. | | | | |
| EFE291AE | 2015 Fall | Special Education: Mild-Moderate Student Teaching III | | Supervised student teaching. Emphasis on the provision of instruction to learners. Covers lesson plan development, classroom procedures, classroom management, and educator professionalism. Includes learner preparation, learner engagement, and learner outcome awareness. | Prerequisites: Baccalaureate Degree and formal admission to a state approved post-baccalaureate teacher preparation program and (a grade of C or better in EDU223AF and EDU293) and permission of Department or Division. | | | LAB 2.0 6.0 0.0 | Z |
| EFE291AF | 2015 Fall | Special Education: Mild-Moderate Student Teaching IV | | Supervised student teaching. Emphasis on the provision of instruction to learners. Covers lesson plan development, classroom procedures, classroom management, and educator professionalism. Includes learner preparation, learner engagement, and learner outcome awareness. | Prerequisites: Baccalaureate Degree and formal admission to a state approved post-baccalaureate teacher preparation program and (a grade of C or better in EDU223AF and EDU293) and permission of Department or Division. | Acad | | LAB 2.0 6.0 0.0 | Z |
| EFE297AA | 2011 Spring | Intern Certificate Student Teaching Lab - K-3 Part A | | Supervised student teacher practicum in K-3 grade classroom. Emphasis on the provision of instruction to learners. Covers lesson plan development, classroom procedures, classroom management, and educator professionalism. Includes learner preparation, learner engagement, and learner outcome awareness. | Prerequisites: Baccalaureate Degree and formal acceptance of a teacher prep program plan by an Arizona Department of Education approved college program and the partnering school district. | Students fulfilling internship credits for certification through the Arizona Department of Education may choose to complete one of the following course sequencing for a total of four (4) credits: (EFE297AA and EFE297AB) or (EFE297AC, EFE297AD, EFE297AE, and EFE297AF). | Acad | LAB 2.0 6.0 0.0 | Z |
| EFE297AB | 2011 Spring | Intern Certificate Student Teaching Lab - K-3 Part B | | Supervised student teacher practicum in K-3 grade classroom. Emphasis on the provision of instruction to learners. Covers lesson plan development, classroom procedures, classroom management, and educator | Prerequisites: Baccalaureate Degree and formal acceptance of a teacher prep plan by an Arizona Department of Education approved college program, the | Students fulfilling internship credits for certification through the Arizona Department of Education may choose to complete one of the following course sequencing for a total of four (4) credits: (EFE297AA and EFE297AB) or (EFE297AC, | Acad | LAB 2.0 6.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | professionalism. Includes learner preparation, learner engagement, and learner outcome awareness. | partnering school district, EFE297AA, and a minimum of 50% successful completion of course work. | EFE297AD, EFE297AE, and EFE297AF). | | | |
| EFE297AC | 2011 Spring | Intern Certificate Student Teaching Lab - K-3 Level I | | Supervised student teacher practicum in K-3 grade classroom. Emphasis on the provision of instruction to learners. Covers lesson plan development, classroom procedures, classroom management, and educator professionalism. Includes learner preparation, learner engagement, and learner outcome awareness. | Prerequisites: Baccalaureate Degree and formal acceptance of a teacher prep program plan by an Arizona Department of Education approved college program and the partnering school district. | Students fulfilling internship credits for certification through the Arizona Department of Education may choose to complete one of the following course sequencing for a total of four (4) credits: (EFE297AA and EFE297AB) or (EFE297AC, EFE297AD, EFE297AE, and EFE297AF). | Acad | LAB 1.0 3.0 0.0 | Z |
| EFE297AD | 2011 Spring | Intern Certificate Student Teaching Lab - K-3 Level II | | Supervised student teacher practicum in K-3 grade classroom. Emphasis on the provision of instruction to learners. Covers lesson plan development, classroom procedures, classroom management, and educator professionalism. Includes learner preparation, learner engagement, and learner outcome awareness. | Prerequisites: Baccalaureate Degree and formal acceptance of a teacher prep plan by an Arizona Department of Education approved college program, the partnering school district, EFE297AC, and a minimum of 25% successful completion of course work. | Students fulfilling internship credits for certification through the Arizona Department of Education may choose to complete one of the following course sequencing for a total of four (4) credits: (EFE297AA and EFE297AB) or (EFE297AC, EFE297AD, EFE297AE, and EFE297AF). | Acad | LAB 1.0 3.0 0.0 | Z |
| EFE297AE | 2011 Spring | Intern Certificate Student Teaching Lab - K-3 Level III | | Supervised student teacher practicum in K-3 grade classroom. Emphasis on the provision of instruction to learners. Covers lesson plan development, classroom procedures, classroom management, and educator professionalism. Includes learner preparation, learner engagement, and learner outcome awareness. | Prerequisites: Baccalaureate Degree and formal acceptance of a teacher prep plan by an Arizona Department of Education approved college program, the partnering school district, EFE297AD, and a minimum of 50% successful completion of course work. | Students fulfilling internship credits for certification through the Arizona Department of Education may choose to complete one of the following course sequencing for a total of four (4) credits: (EFE297AA and EFE297AB) or (EFE297AC, EFE297AD, EFE297AE, and EFE297AF). | Acad | LAB 1.0 3.0 0.0 | Z |
| EFE297AF | 2011 Spring | Intern Certificate Student Teaching Lab - K-3 Level IV | | Supervised student teacher practicum in K-3 grade classroom. Emphasis on the | Prerequisites: Baccalaureate Degree and formal acceptance | Students fulfilling internship credits for certification through the Arizona Department of | Acad | LAB 1.0 3.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | provision of instruction to learners. Covers lesson plan development, classroom procedures, classroom management, and educator professionalism. Includes learner preparation, learner engagement, and learner outcome awareness. | of a teacher prep plan by an Arizona Department of Education approved college program, the partnering school district, EFE297AE, and a minimum of 75% successful completion of course work. | Education may choose to complete one of the following course sequencing for a total of four (4) credits: (EFE297AA and EFE297AB) or (EFE297AC, EFE297AD, EFE297AE, and EFE297AF). | | | |
| ELA111 | 2018 Fall | Construction Electricity I | | Introduction to the electrical construction trade incorporating safety awareness, introductory concepts in electrical theory, math review, solving simple equations, ratios, percentages and proportions. Study of the National Electrical code (NEC), practical use of materials and tools of the electrical construction trade. Basic splicing, anchoring, and fusing procedures; basic conduit bending calculations and installations, introduction to blueprint reading for electricians, rigging and lifting techniques. | Prerequisites: Registered apprenticeship status or permission of the Apprenticeship Coordinator. | | Occ | L+L 6.0 6.0 6.0 | T |
| ELA112 | 2018 Fall | Construction Electricity II | | Introduction to the fundamentals electricity, basic direct current (DC) theory through advanced DC theory, advanced conduit fabrication, bending applications and calculations. Practical applications for wiring devices and conduit bending. | Prerequisites: Registered apprenticeship status or permission of the Apprenticeship Coordinator. | | Occ | L+L 6.0 6.0 6.0 | T |
| ELA113 | 2018 Fall | Introduction to National Electrical Code | | Development, content, structure, and definitions in the National Electrical Code (NEC). Application of the NEC for proper and safe electrical installations and wiring methods. | Prerequisites: Registered apprenticeship status or permission of Apprenticeship Coordinator. | | Occ | L+L 3.0 3.0 3.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| ELA123 | 2018 Fall | Construction Electricity III | | American labor history, parliamentary procedures. Electrical theory of alternating current systems pertaining to inductance, and capacitance; use of alternating current (AC) and direct current (DC) meters, rectifiers and capacitors. | Prerequisites: Registered apprenticeship status or permission of the Apprenticeship Coordinator. | | Occ | L+L 6.0 6.0 6.0 | T |
| ELA124 | 2018 Fall | Construction Electricity IV | | Transformers principles and applications in regards to use, connection, installation and safety related to transformer principles and applications including requirements specified by the National Electrical Code (NEC). Filters and power quality for electrical systems, direct current generation, application of test instruments for power quality, instrumentation, insulation testing and voice-data-video. Blueprint reading for electricians, commercial drawings, specifications, and schedules. | Prerequisites: Registered apprenticeship status or permission of the Apprenticeship Coordinator. | | Occ | L+L 6.0 6.0 6.0 | T |
| ELA125 | 2018 Fall | National Electric Code I | | National Electrical Code (NEC) related to branch circuits, feeders, services, devices, conductors, raceways and cable assembles. Electrical safety incorporating Occupational Safety and Health Association (OSHA) requirements and National Fire Protection Association (NFPA) 70E guidelines. | Prerequisites: Registered apprenticeship status or permission of the Apprenticeship Coordinator. | | Occ | L+L 3.0 3.0 3.0 | T |
| ELA235 | 2018 Fall | Advanced Construction Electricity I | | Advanced industrial blueprint reading, lighting design, healthcare systems including the National Electrical Code (NEC) requirements. Motors and motor controls. | Prerequisites: Registered apprenticeship status or permission of the Apprenticeship Coordinator. | | Occ | L+L 6.0 6.0 6.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| ELA236 | 2018 Fall | Advanced Construction Electricity II | | Motor Controls, types of motor controls, components, motor control circuitry, and installations of motor control components and circuitry: Instrumentation and process controls, theory of process controls, installation, calibration, and troubleshooting of instruments and control circuitry. | Prerequisites: Registered apprenticeship status or permission of the Apprenticeship Coordinator. | | Occ | L+L 6.0 6.0 6.0 | T |
| ELA238 | 2018 Fall | National Electric Code II | | National Electrical Code requirements for Grounding and bonding electrical installations. Continued study of electrical safety incorporating Occupational Safety and Health Association (OSHA) requirements and National Fire Protection Association (NFPA) 70E guidelines. | Prerequisites: Registered apprenticeship status or permission of the Apprenticeship Coordinator. | | Occ | LAB 3.0 3.0 3.0 | T |
| ELA246 | 2018 Fall | National Electric Code III | | National Electrical Code (NEC) requirements for special occupancies, conditions, and equipment. Calculations for conductor ampacites, conductor fill specific branch circuits. Installation and NEC requirements for Photovoltaic (PV) Systems. | Prerequisites: Registered apprenticeship status or permission of the Apprenticeship Coordinator. | | Occ | LAB 3.0 3.0 3.0 | T |
| ELA247 | 2022 Fall | Advanced Construction Electricity III | | Leadership and motivation techniques for the electrical industry, digital electronics, Boolean algebra and logic gates. Power quality for electrical systems, distributed generation, information technologies sites, uninterruptable power supplies, and fuel cells. Torque theory and applications. National Electrical Code (NEC) related to over current protective | Prerequisites: Registered apprenticeship status or permission of the Apprenticeship Coordinator. | | Occ | L+L 6.0 6.0 6.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | devices (OCPDs), types, sizing, and ratings. Tape rules, fault current calculations and ratings, motor branch circuits and circuit/transformer protection. | | | | | |
| ELA248 | 2022 Fall | Advanced Construction Electricity IV | | Introduction to fire alarm systems, requirements, devices, wiring methods and applicable codes; fire alarm blueprints and specifications. Cables, cabling systems, terminations, grounding and bonding. Telecommunications Industry Association/Electronic Industries Alliance (TIA/EIA) standards. Hazardous location introduction and history, area classification, protection techniques, equipment, wiring requirements, and special occupancies. National Electrical Code (NEC) updates, installation of emergency and standby systems over 600 volts, remote-control, signaling, and power-limited circuit, specific raceways and cable tray systems, in-floor, multi-outlet assembles, changes and update to the NEC. | Prerequisites: Registered apprenticeship status or permission of the Apprenticeship Coordinator. | | Occ | L+L 6.0 6.0 6.0 | T |
| ELC103 | 2017 Fall | Electrical/Mechanical Calculations | | Fundamental calculations in arithmetic, algebra, trigonometry, descriptive geometry, economics, and probability. Application of theories and formulas to solve design, installation, maintenance, and troubleshooting problems for industrial, commercial, and residential electrical and mechanical systems. | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| ELC115 | 2021 Fall | Motors, Controls and Wiring Diagrams | FAC115 | Principles of three-phase motors. Wye and delta wiring. Calculation of motor current draw. Sequence of operation, wiring diagram and electrical components associated with industrial equipment. Procedures for evaluating electrical problems. Safety stressed. | Prerequisites: A grade of C or better in CON/HVA131 or permission of Department. | | | LEC 3.0 3.0 3.0 | S |
| ELC119 | 2017 Fall | Concepts of Electricity and Electronics | | Introduction to theory and principles of electric circuits, magnetism and electromagnetism including basic motors, transformers and generators. Use of basic measuring instruments. Overview of Ohm's and Kirchhoff's law and electronics in the modern world. | Prerequisites: None. | Occ | Occ | LEC 3.0 3.0 3.0 | S |
| ELC120 | 2017 Fall | Solid State Fundamentals | | Theory of operation of semi-conductor devices, component and system construction, operation, installation, and service. Specific and practical applications in relations to temperature, light, speed and pressure control as used in industry today. Includes amplifiers, power supplies, integrated circuits, alternating current (AC) and direct current (DC) drives, fiber optics, and safety. | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| ELC123 | 2018 Fall | Residential Electrical Wiring and Codes | | Analysis and interpretation of residential drawings, local codes and specific sections of the National Electrical Code. Including needed materials derived from plans and specifications and the proper procedures for wiring a residence and other special locations. Areas of focus include circuits, conductors, switches, outlets, heating, | Prerequisites: None. | | Occ | L+L 3.0 3.0 3.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | security, and communication systems. | | | | | |
| ELC124 | 2017 Fall | Industrial Electrical Wiring and Codes | | Industrial electrical power techniques of low, medium and high voltage systems. Selection of electrical distribution components, single and three phase systems, one-line diagrams, motors, transformers, protective devices, power factor, demand factor, conductor selection, system planning, grounding and energy management. | Prerequisites: A grade of C or better in ELC123 or permission of Instructor or admission to Electric League of Arizona program. | | | LEC 3.0 3.0 3.0 | S |
| ELC125 | 2018 Fall | Commercial Electrical Wiring and Codes | | Commercial electrical power distribution techniques of low voltage (under 600 volt) systems. Selection of electrical distribution components, single and three systems, one-line diagrams and conductor selection. System grounding, planning and over current protection. | Prerequisites: A grade of C or better in ELC123 or permission of Instructor or admission to Electric League of Arizona program. | Occ | | L+L 3.0 3.0 3.0 | T |
| ELC144 | 2018 Fall | Basic Automated Systems Using Programmable Controllers | | Principles of automated control systems. Principles and application of programmable controllers, control functions, hardware, logic, programming, documentation, troubleshooting, start-up, maintenance and operation. Commercial and industrial control applications. Introduction to commercial programmable controllers. | Prerequisites: A grade of C or better in ELC120 or permission of Instructor or admission to Electric League of Arizona program. | Occ | | L+L 3.0 3.0 3.0 | T |
| ELC160 | 2018 Summer | Applied Electrical Codes I | | Analysis of diagrams and application of current code interpretations. Includes local exceptions and practices. Review of the National Electrical Code (NEC) related to definitions, installations, wiring and protection, wiring | Prerequisites: A grade of C or better in ELC119 or permission of Instructor. | Occ | Occ | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | methods, materials, and equipment. | | | | | |
| ELC161 | 2018 Summer | Applied Electrical Codes II | | National Electrical Code (NEC) requirements for hazardous locations, special use and occupancies. Commercial, industrial and service locations. Fiber optics, communications and other state-of-the-art applications. Local inspection practices and requirements. | Prerequisites: A grade of C or better in ELC160 or permission of Instructor. | | Occ | LEC 3.0 3.0 3.0 | S |
| ELC162 | 1995 Fall | Electrical Codes and Inspection I | | Analysis of diagrams and application of current code interpretations. Includes local exceptions and practices | Prerequisites: A grade of C or better in (ELE100 and ELE101) or permission of Instructor. | | Occ | LEC 3.0 3.0 3.0 | S |
| ELC164 | 2017 Fall | Grounding and Bonding | | Electrical theory and calculation of electrical current. Grounding and bonding terminology including National Electric Code (NEC) Articles 250. Interpreting code requirements for grounding and bonding. Code requirements for field installation and sizing. | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| ELC210 | 2017 Fall | AC Machinery and DC Machinery | | Principles and operation of AC (Alternating current) and DC (direct current) motors, generators, and alternators. Includes single-phase motors along with induction, synchronous, and wound-rotor types of three-phase motors. DC motors including shunt-field, series field, wound rotor, permanent magnet, stepper and brushless types. | Prerequisites: A grade of C or better in ELC119 or permission of Instructor or admission to Electric League of Arizona program. | | | LEC 3.0 3.0 3.0 | S |
| ELC217 | 2018 Fall | Motor Controls | | Electrical symbols, line diagrams and logic. Contacts and starters, control devices, reversing circuits and power distribution systems. Magnetism and magnetic solenoids, reduced voltage | Prerequisites: A grade of C or better in ELC119 or permission of Department or Division or admission to Electric League of Arizona program. | Occ | Occ | L+L 3.0 3.0 3.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | starters, and circuits. Hand tools and safety procedures. | | | | | |
| ELC218 | 2017 Fall | Variable Frequency Drives | | Principles and operation of frequency controlled AC (Alternating current) motor drives, including current source inverters (CSI), variable voltage inverters (VVI) and pulse width modulated inverters (PWM). Heating, ventilation and air conditioning (HVAC) applications along with energy savings, motor pump sizing and torque load calculations. | Prerequisites: A grade of C or better in ELC120 or permission of Instructor or admission to Electric League of Arizona program. | | | LEC 3.0 3.0 3.0 | S |
| ELC219 | 2018 Fall | Programmable Controllers | | Principles and applications of programmable logic controls (PLC's). Numbering systems, control strategies, and ladder logic. Basic machine functions and operations to include programming, troubleshooting and maintenance. Application of PLC programming, operations and troubleshooting skills. | Prerequisites: A grade of C or better in ELC/FAC/HVA105 and ELC/FAC115 and ELC119 or permission of Instructor. | Occ | Occ | L+L 4.0 6.0 6.0 | T |
| ELC296WA | 2002 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor. | | Occ | LAB 1.0 5.0 0.0 | Z |
| ELC296WB | 2002 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of | Prerequisites: Completion of at least | | | LAB 2.0 10.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE | twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor. | | | | |
| ELC296WC | 2002 Fall | Cooperative Education | ELC296WD | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor. | | Occ | LAB 3.0 20.0 0.0 | Z |
| ELC296WD | 2002 Fall | Cooperative Education | ELC296WC | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: | | | LAB 3.0 20.0 0.0 | Z |



Occ

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor. | | | | |
| ELC298AA | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | Prerequisites: Permission of Program Director or Instructor. | | Occ | LAB 1.0 1.0 0.0 | Z |
| ELC298AB | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | Prerequisites: Permission of Program Director or Instructor. | | Occ | LAB 2.0 2.0 0.0 | Z |
| ELC298AC | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type | Prerequisites: Permission of Program Director or Instructor. | | Occ | LAB 3.0 3.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | | | | | |
| ELE100 | 2018 Fall | Concepts of Electricity and Electronics | | Principles of electric circuits, magnetism and electromagnetism including basic motors and generators. Use of basic measuring instruments. Includes an overview of electronics in the modern world | Prerequisites: None. | | Occ | L+L 3.0 4.0 4.0 | T |
| ELE101 | 2013 Spring | Beginning Algebra for Technology | | Basic axioms of algebra, linear equations in one or two variables, operations on polynomials, rational expressions, simultaneous solutions of linear equations, laws of exponents. | Prerequisites: Score of 19 on Technical Mathematics placement test or a Grade of C or better in GTC107 or MAT082 or equivalent. | | Occ | LEC 3.0 3.0 3.0 | S |
| ELE105 | 2004 Fall | Algebra-Trigonometry for Technology | | Topics from college algebra and trigonometry essential to the study of electronics; polynomials, exponential and logarithmic functions, complex numbers, and trigonometric functions and identities. | Prerequisites: A grade of C or better in either ELE101 or MAT090 or MAT091 or MAT092 or equivalent or score of 16 on Technical Algebra placement test. | | | LEC 5.0 5.0 5.0 | S |
| ELE111 | 2020 Fall | Circuit Analysis I | | Direct current (DC) and alternating current (AC) electric circuits. Ohm's law, Kirchoff's laws, series, parallel and series-parallel circuits, fundamentals of inductance and capacitance, and the transient behavior of circuits containing resistance and capacitance or resistance and inductance. | Prerequisites: None. Corequisites: MAT120, or MAT121, or MAT122, or equivalent. | Occ | | L+L 4.0 6.0 6.0 | T |
| ELE112 | 2018 Fall | Circuit Analysis II | | Alternating current (AC) and direct current (DC) circuits containing resistance and reactance. Detailed coverage of AC/DC circuit parameters, | Prerequisites: A grade of C or better in ELE111. | Occ | Occ | L+L 4.0 6.0 6.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | including theorems, impedance matching, and resonance | | | | | |
| ELE121 | 2018 Fall | Solid-State Devices and Circuits I | | Theory of operation of semiconductor diodes and transistors. Bipolar junction transistor biasing and load-line analysis. Alternating Current (AC) equivalent circuits applied to small signal amplifiers. Characteristics of large signal and power amplifiers | Prerequisites: A grade of C or better in ELE111. | | Occ | L+L 4.0 6.0 6.0 | T |
| ELE131 | 2020 Fall | Digital Logic and Circuits | | Number systems, binary arithmetic, and Boolean algebra, combinational and sequential logic circuits, and memory elements. | Prerequisites: None. | | Occ | L+L 3.0 6.0 6.0 | T |
| ELE161 | 2021 Spring | Custom Electric Guitar Fabrication | | Offered to guitar or bass players, artists, woodworkers or anyone who wants to learn the specialized skills of a luthier or the art of electric guitar crafting, maintenance, and setup. Fabricate and integrate a complete guitar neck and body, and finish with a combination of paint, stain, and clear coats. | Prerequisites: None. | | Occ | L+L 3.0 4.0 4.0 | T |
| ELE162 | 2021 Spring | Custom Acoustic Guitar Fabrication | | Offered to guitar players, artists, woodworkers or anyone who wants to learn the specialized skills of a luthier or the art of acoustic guitar crafting, maintenance, and setup. Fabricate and integrate a complete guitar neck and body, and finish with a combination of paint, stain, and clear coats. | Prerequisites: None. | | Occ | L+L 3.0 4.0 4.0 | T |
| ELE173 | 2018 Fall | Fabrication Techniques | | Introduction to electronic assembly safety practices and procedures, hand tool, and measuring devices. Includes basic and special assembly tools, fastener installation and | Prerequisites: None. | | Occ | L+L 3.0 6.0 6.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | removal tools, precision measuring tools, fabrication tools, torque measuring instruments, Electrostatic Discharge (ESD) awareness and procedures, basic soldering/desoldering, prototype and troubleshooting. | | | | | |
| ELE181 | 2018 Fall | Computer Programming for Technology | | Elementary computer programming techniques. Hands-on computer usage | Prerequisites: None. | | Occ | L+L 3.0 5.0 5.0 | T |
| ELE222 | 2018 Fall | Solid-State Devices and Circuits II | | Theory and application of differential and operational amplifiers. Power supplies and regulators; special devices and circuits. | Prerequisites: A grade of C or better in ELE112 and ELE121. | | | L+L 4.0 6.0 6.0 | T |
| ELE241 | 2018 Fall | Microprocessor Concepts | | Architectures of selected microprocessors. Presentation of machine and assembly language programming | Prerequisites: A grade of C or better in ELE131. | | Occ | L+L 4.0 6.0 6.0 | T |
| ELE243 | 2021 Fall | Microprocessor Applications | ELT243 | Presents the microprocessor in computing and control applications. System hardware and software used to control the microprocessor system to perform input/output operations. | Prerequisites: A grade of C or better in ELE241. | Occ | Occ | L+L 3.0 5.0 5.0 | T |
| ELE245 | 2019 Fall | Advanced Microprocessors and Systems | | Microprocessors and systems, in the expanding Internet of Things. Legacy, current, and future wired and wireless interfaces and protocols. Connecting modern software environments to real-world electronic hardware. | Prerequisites: A grade of C or better in (ELE131 and ELE181), or ELE241, or permission of Instructor. | ELE245 may be repeated for a total of nine (9) credit hours. | Occ | L+L 3.0 3.0 3.0 | T |
| ELE251 | 2018 Fall | Electronic Measurements | | Application and operation of common electronic and electrical test instruments including: oscilloscopes, analog and digital multimeters, digital counters and signal sources. Transducers, amplifiers, and filters, as they apply to instrumentation systems. Laboratory reports | Prerequisites: A grade of C or better in ELE121. | | Occ | L+L 3.0 5.0 5.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | and documentation are emphasized | | | | | |
| ELE261 | 2018 Fall | Communication Systems | | Communication systems. Amplitude modulation (AM), frequency modulation (FM), single-sideband (SSB), radio receivers, pulse systems, radiation, antennas and wave propagation. | Prerequisites: A grade of C or better in ELE121 and ELE131. Corequisites: ELE222. | | Occ | L+L 4.0 6.0 6.0 | T |
| ELE263 | 2018 Fall | Digital Data Communications | | Overview of modern telephone system. Telephone switching and modulation techniques. Familiarization with AM(amplitude modulation) and FM(frequency modulaation) circuits. Operation of asynchronous and sychronous modems | Prerequisites: A grade of C or better in ELE121 and ELE241. | | | L+L 4.0 6.0 6.0 | T |
| ELN100 | 2011 Spring | Foundations of eLearning Design for K-12 | | Overview of eLearning design foundations for K-12 environment. Includes the history, characteristics, and theories of eLearning. Principles and models of instruction design as well as eLearning technologies and course management systems covered. | Prerequisites: Must hold a Career and Technical Education (CTE), provisional or standard elementary, secondary or special education teaching certificate, or permission of Department or Division. | Occ | | LEC 3.0 3.0 3.0 | S |
| ELN103 | 2011 Spring | K-12 eLearning Technology and Media | | Overview of technology and media used in K-12 eLearning environments. Covers types of media, learning settings, instructional strategies, and visual principles as well as current and future trends. Usage of audio and video technology included. | Prerequisites: Must hold a Career and Technical Education (CTE), provisional or standard elementary, secondary or special education teaching certificate, or permission of Department or Division. | Acad | | LEC 3.0 3.0 3.0 | S |
| ELN105 | 2011 Spring | Classroom Management in K-12 eLearning | | Procedures for management of the eLearning classroom. Emphasis on creating a supportive and engaging active learning environment for the distance learner. Covers characteristics of the distance learning student as | Prerequisites: Must hold a Career and Technical Education (CTE), provisional or standard elementary, secondary or special education teaching certificate, or | Acad | | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | well as procedures for creating a collaborative, integrated, and supportive learning environment. | permission of Department or Division. | | | | |
| ELN106 | 2011 Spring | Discipline and Behavior in K-12 eLearning | | Overview of discipline and behavior issues in the K-12 eLearning environment. Includes classroom discipline theories and approaches to discipline. Also covers formalization of a personal system of discipline. | Prerequisites: Must hold a Career and Technical Education (CTE), provisional or standard elementary, secondary or special education teaching certificate, or permission of Department or Division. | | | LEC 3.0 3.0 3.0 | S |
| ELN107 | 2011 Spring | Parent Communication and Involvement in K-12 eLearning | | Procedures for involving parents in K-12 eLearning. Includes law and public policy relating to compliance, student advocacy, and parental rights. Also covers parent-teacher communication issues as well as online education family involvement models. | Prerequisites: Must hold a Career and Technical Education (CTE), provisional or standard elementary, secondary or special education teaching certificate, or permission of Department or Division. | Acad | | LEC 3.0 3.0 3.0 | S |
| ELN108 | 2011 Spring | Legal Issues in K-12 eLearning | | Overview of legal issues and regulations in an online K-12 classroom. Intellectual property, privacy, Internet security, and educational institution policies covered. Includes the Family Educational Rights and Privacy Act (FERPA) and Individuals with Disabilities Act (IDEA) | Prerequisites: Must hold a Career and Technical Education (CTE), provisional or standard elementary, secondary or special education teaching certificate, or permission of Department or Division. | Acad | | LEC 3.0 3.0 3.0 | S |
| ELN109 | 2011 Spring | Engaging K-12 eLearners | | Overview of engaging K-12 learners in an eLearning environment. Phases of eLearning and eLearning activities covered. Tool usage and assessment emphasized. | Prerequisites: Must hold a Career and Technical Education (CTE), provisional or standard elementary, secondary or special education teaching certificate, or permission of Department or Division. | Acad | | LEC 3.0 3.0 3.0 | S |
| ELN111 | 2011 Spring | K-12 eLearning Environments | | Introduction to eLearning environments for K-12 teachers. Synchronous and asynchronous environments | Prerequisites: Must hold a Career and Technical Education (CTE), provisional or standard | | | LEC 3.0 3.0 3.0 | S |



Acad

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | as well as online collaboration covered with an emphasis on considerations for K-12 students. Course management systems for K-12 learning environments also included. | elementary, secondary or special education teaching certificate, or permission of Department or Division. | | | | |
| ELN112 | 2011 Spring | Methods of Building and Facilitating eLearning: 9-12 | | Methods for building and facilitating eLearning for 9-12 students. Includes course design principles and methods as well as copyright and intellectual property issues. Also covers student activities facilitation, assessment, and online classroom management concerns. | Prerequisites: Must hold a Career and Technical Education (CTE), provisional or standard elementary, secondary or special education teaching certificate, or permission of Department or Division. | | | LEC 3.0 3.0 3.0 | S |
| ELN113 | 2011 Spring | Methods of Building and Facilitating eLearning: K-8 | | Methods for building and facilitating eLearning for K-8 students. Includes course design principles and methods as well as copyright and intellectual property issues. Also covers student activities facilitation, assessment, and online classroom management concerns. K-8 learner special considerations also included. | Prerequisites: Must hold a Career and Technical Education (CTE), provisional or standard elementary, secondary or special education teaching certificate, or permission of Department or Division. | Acad | | LEC 3.0 3.0 3.0 | S |
| ELN114 | 2011 Spring | Building Community with Online Learners | | Procedures for building a community in an eLearning environment. Includes personalization of learning, collaborative learning, and transformative learning. Foundations for building an online community and technology usage also covered | Prerequisites: None. | Acad | Acad | LEC 3.0 3.0 3.0 | S |
| ELN118 | 2011 Spring | Motivation and the Online Learner | | Overview of motivation in the online classroom. Includes motivation theories, self-esteem vs. self-efficacy, and learner expectations as well as motivational problems and benefits of a motivational | Prerequisites: None. | | Acad | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | online learning environment. Facilitator's role, grouping of students, and assessment creation as motivation tools also covered | | | | | |
| ELN121 | 2011 Spring | Evaluating K-12 eLearning | | Procedures for evaluating K-12 eLearning. Includes procedures for creating and integrating various types of student and course evaluation into the eLearning process. | Prerequisites: Must hold a Career and Technical Education (CTE), provisional or standard elementary, secondary or special education teaching certificate, or permission of Department or Division. | | | LEC 3.0 3.0 3.0 | S |
| ELN122 | 2011 Spring | K-12 eLearning Assessment Creation | | Procedures for creating assessments for K-12 eLearning environment. Emphasis on importance of and plans to measure learning as well as implications for K-12 eLearners. Covers learning outcomes, performance objectives, types of assessments. Online student interaction and collaboration included. | Prerequisites: Must hold a Career and Technical Education (CTE), provisional or standard elementary, secondary or special education teaching certificate, or permission of Department or Division. | Acad | | LEC 3.0 3.0 3.0 | S |
| ELN290AA | 2018 Fall | eLearning Design Internship | | eLearning design work experience in industry or education. Eighty (80) hours of designated work per credit. | Prerequisites: Permission of Department or Division. | ELN290AA may be repeated for a total of three (3) credit hours Acad | Acad | L+L 1.0 1.0 1.0 | T |
| ELN290AB | 2018 Fall | eLearning Design Internship | | eLearning design work experience in industry or education. Eighty (80) hours of designated work per credit. | Prerequisites: Permission of Department or Division. | ELN290AB may be repeated for a total of four (4) credit hours. | Acad | L+L 2.0 2.0 2.0 | T |
| ELN290AC | 2018 Fall | eLearning Design Internship | | eLearning design work experience in industry or education. Eighty (80) hours of designated work per credit | Prerequisites: Permission of Department or Division. | | | L+L 3.0 3.0 3.0 | T |
| ELR131 | 2023 Fall | Electrical Systems | | Electricity related to residential and light commercial applications, to include common electrical components, alternating current (AC) and direct current (DC) circuits, and electrical safety. Provides an | Prerequisites: None. | | CLK | 140 | |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | introduction to reading, interpreting, and creating wiring diagrams and the application of electrical power. Operation and use of specific meters, tools, and an introduction to the National Electrical Code (NEC). | | | | | |
| ELR132 | 2023 Fall | Distribution Panels, Wiring, and Circuit Protection in Electrical Systems | | Course covers construction drawings and code related to conductors and cables (types, ratings), residential and commercial applications, wire sizes, utilities, meters, disconnects, breakers, grounding and bonding, rough-in wiring and circuit safety protection. | Prerequisites: None. | | CLK | 140 | |
| ELR133 | 2020 Fall 1 | Conduit, Raceways, and Termination in Electrical Systems | | Course covers termination and the implementation of electricity in a facility. Considers topics related to box capacities, raceways, conduit sizes, termination practices, wire trays, and finish wiring. | Prerequisites: None. | | CLK | 120 | |
| ELR133DC | 2023 Fall | Conduit, Raceways, and Termination in Electrical Systems | | Course covers termination and the implementation of electricity in a facility. Considers topics related to box capacities, raceways, conduit sizes, termination practices, wire trays, and finish wiring. | Prerequisites: None. | | CLK | 140 | |
| ELR234 | 2020 Fall 1 | Electric Power Distribution | | Course covers the theory and applications of distribution of power from utilities to residential and commercial sites, including transformers and commercial electrical distribution equipment and services. Also includes safety, codes, and interpretation of construction drawings and specifications. | Prerequisites: None. | | CLK | 81 | |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| ELR234DC | 2023 Fall | Electric Power Distribution | | Course covers the theory and applications of distribution of power from utilities to residential and commercial sites, including transformers and commercial electrical distribution equipment and services. Also includes safety, codes, and interpretation of construction drawings and specifications. | Prerequisites: None. | | CLK | 70 | |
| ELR235 | 2020 Fall 1 | Motors: Theory and Application | | Course covers motor and motor controls in electricity. Explains how to select and install relays and troubleshoot control circuits. Distinctions between alternating current (AC) and direct current (DC) motors, motor speed control, design and operation characteristics, and connections and terminal markings | Prerequisites: None. | | CLK | 120 | |
| ELR235DC | 2023 Fall | Motors: Theory and Application | | Course covers motor and motor controls in electricity. Explains how to select and install relays and troubleshoot control circuits. Distinctions between alternating current (AC) and direct current (DC) motors, motor speed control, design and operation characteristics, and connections and terminal markings | Prerequisites: None. | | CLK | 70 | |
| ELR236 | 2020 Fall 1 | Industrial Wiring Applications | | Course covers a broad variety of electrical wiring applications, including healthcare facility, heating, ventilation, and air conditioning (HVAC), standby, emergency, and fire alarm systems. | Prerequisites: None. | | CLK | 81 | |
| ELR236DC | 2023 Fall | Industrial Wiring Applications | | Course covers a broad variety of electrical wiring applications, including | Prerequisites: None. | | CLK | 70 | |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | healthcare facility, heating, ventilation, and air conditioning (HVAC), standby, emergency, and fire alarm systems. | | | | | |
| ELT100 | 1993 Spring | Survey of Electronics | | An introduction to the field of electronics for those who may not intend to specialize in electronics. Essentially nonmathematical in nature; includes familiarization with a wide range of electronic components. Application to electronic systems, such as radio transmitters and receivers - both AM(amplitude modulation) and FM(frequency modulation), television transmitters and receivers, logic control, and computers. Application also to automotive electronics | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| ELT101 | 1995 Fall | Mathematics for Electronics I | | Basic principles of Algebra with applications to the analysis of electronic circuits. Emphasis on the use of the calculator for conversions and DC(direct current) circuit problems | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| ELT102 | 1995 Fall | Mathematics for Electronics II | | The study of simultaneous equations, quadratic equations, trigonometric relationships, periodic functions and logarithms as applied to AC(alternating current) circuit analysis. Application of the scientific calculator to technical problem solving in electronics | Prerequisites: A grade of C or better in ELT101 or equivalent. | | | LEC 3.0 3.0 3.0 | S |
| ELT113 | 2018 Fall | Basic Electronics | | Direct and alternating current electrical circuits. Theory and practical lab experience, using the appropriate test equipment and computer solutions. Ohm's Law, Kirchhoff's Laws, and various network theorems | Prerequisites: A grade of C or better in ELT102 or Corequisites: ELT102 or equivalent. | Occ | | LEC 4.0 3.0 3.0 LAB 0.0 3.0 3.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | applied to the study and analysis of series, parallel, and series-parallel circuit configurations. Includes complex algebra, impedance, frequency response, and resonance. | | | | | |
| ELT131 | 2020 Summer | Digital and Logic Circuits | | Digital concepts and fundamentals, number systems and codes, Boolean algebra and combinational logic, logic reduction techniques, and logic hardware. Memories and programmable logic arrays. Hands-on hardware and computer-aided logic design experiments. | Prerequisites: A grade of C or better in ELT113, or ELC119, or permission of Instructor. | | Occ | LEC 4.0 3.0 3.0 LAB 0.0 3.0 3.0 | T |
| ELT195 | 2018 Fall | Solid State Electronics | | Characteristics and use of solid state devices in practical circuit applications. Circuit analysis techniques and computer simulations. Includes, diodes, transistors, four-layer devices, operational amplifiers, and interfacing devices | Prerequisites: A grade of C or better in ELT113 or permission of Department or Division. | | | LEC 4.0 3.0 3.0 LAB 0.0 3.0 3.0 | T |
| ELT243 | 2021 Fall | Microprocessor Applications | ELE243 | Presents the microprocessor in computing and control applications. System hardware and software used to control the microprocessor system to perform input/output operations. | Prerequisites: A grade of C or better in ELE241. | Occ | Occ | L+L 3.0 5.0 5.0 | T |
| ELT251 | 2020 Summer | Electronic Instrumentation | | Electronic instruments and their usage in measuring and analyzing electronic circuits. Includes both analog and digital meters, oscilloscopes, and digital logic analyzers. Covers automatic test equipment, various transducers, and reliability requirements. | Prerequisites: A grade of C or better in ELT195, or ELC120, or permission of Department or Division. | | | LEC 3.0 2.0 2.0 LAB 0.0 3.0 3.0 | T |
| ELT296WA | 2002 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of | Prerequisites: Completion of at least | | | LAB 1.0 5.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE | twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor. | | | | |
| ELT296WB | 2002 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor. | | Occ | LAB 2.0 10.0 0.0 | Z |
| ELT296WC | 2002 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: | | | LAB 3.0 15.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor. | | | | |
| ELT296WD | 2002 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor. | | Occ | LAB 4.0 20.0 0.0 | Z |
| ELT298AA | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | Prerequisites: Permission of Program Director or Instructor. | | Occ | LAB 1.0 1.0 0.0 | Z |
| ELT298AB | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by | Prerequisites: Permission of Program Director or Instructor. | | Occ | LAB 2.0 2.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | | | | | |
| ELT298AC | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | Prerequisites: Permission of Program Director or Instructor. | | Occ | LAB 3.0 3.0 0.0 | Z |
| EMC101 | 2023 Fall | CPR/Basic Cardiac Life Support | | Designed to train students in the skills of cardiopulmonary resuscitation (CPR) to include mouth-to-mouth, mouth-to-mask, cardiac compression, stabilization of adult, infant, and child victims with airway obstruction, respiratory, and cardiac arrest. | Prerequisites: Admission into the Emergency Medical Technology program. Successful completion of RDG100 or higher or appropriate reading placement into CRE101. | To receive an American Heart Association (AHA) Basic Life Support (BLS) course completion card and continue in the EMT program, students in the course must pass both the skills and written exams. | CLK | 6 | |
| EMC101DC | 2023 Fall | CPR/Basic Cardiac Life Support | | Designed to train high school students in the skills of cardiopulmonary resuscitation (CPR) to include mouth-to-mouth, mouth-to-mask, cardiac compression, stabilization of adult, infant, and child victims with airway obstruction, respiratory, and cardiac arrest. | Prerequisites: Admission into the Emergency Medical Technology program. Successful completion of RDG100 or higher or appropriate reading placement into CRE101. | To receive an American Heart Association (AHA) Basic Life Support (BLS) course completion card and continue in the EMT program, students in the course must pass both the skills and written exams. | CLK | 6 | |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| EMC102 | 2020 Fall 1 | Emergency Medical Responder | | A comprehensive course to train a lay person to provide care for patients suffering sudden illness or injury. For members of law enforcement agencies, industry, and the private sector. | Prerequisites: EMC101 or with Program Manager approval. | | | 40 | |
| EMC104 | 2023 Fall | Basic Emergency Medical Technology | | Designed as the Emergency Medical Technician (EMT) lecture and lab to prepare students for scope of practice and standard of care with comprehensive assessment, diagnostic technology, patient advocacy, ethical and professional behaviors, critical thinking, decision-making, and patient management of medical and trauma emergencies and non-emergencies. Scenario-based learning applied to the techniques of emergency medical care is in accordance with national and state curriculum. Students will participate in the simulated EMT practicum on campus, which demonstrates the skills, knowledge, and abilities learned in the lecture and lab. | Prerequisites: EMC101 or with Program Manager approval. | CLK<br><br>CLK | | 214 | |
| EMC104DC | 2023 Fall | Basic Emergency Medical Technology | | Designed as the Emergency Medical Technician (EMT) lecture and lab to prepare students for scope of practice and standard of care with comprehensive assessment, diagnostic technology, patient advocacy, ethical and professional behaviors, critical thinking, decision-making, and patient management of medical and trauma emergencies and non-emergencies. Scenario-based learning applied to the | Prerequisites: EMC102 or with Program Manager approval. | CLK | | 174 | |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | techniques of emergency medical care is in accordance with national and state curriculum. Students will participate in the simulated EMT practicum on campus, which demonstrates the skills, knowledge, and abilities learned in the lecture and lab. | | | | | |
| EMC105 | 2022 Fall | Hazardous Materials Awareness and Operations | | Basic methods of recognition and identification based upon the chemical and physical properties of hazardous materials; basic safety procedures when utilizing specific types of protective clothing and equipment; basic tactical information relating to scene management. Satisfies minimum standards for certification testing set forth by the current ProBoard and/or Arizona State Training and Certifying Authority. | Prerequisites: None. | | CLK | 40 | |
| EMC108 | 2021 Fall 1 | Emergency Medical Services and Fire Preparatory Academy | | This course is designed specifically for individuals seeking a career in the fire-medical service and addresses foundational emergency medical technology, hazardous materials, and firefighting content material, as well as meeting two of the prerequisites for the Fire Department Operations course also known as the "Fire Academy" (FSC102). These two prerequisites are Emergency Medical Technology (EMT/FSC104) and Hazardous Materials (FSC105). Upon successful completion of the course, the participant will be eligible to sit for the EMT and Hazardous | Prerequisites: Admission into the Emergency Medical Services and Fire Preparatory Academy program. Successful completion of RDG100 or higher or appropriate reading placement into CRE101. | | CLK | 300 | |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Materials (Haz-Mat) certification examinations. The course meets current United States Department of Transportation (USDOT) national standard education guidelines for emergency medical technicians. Course teaches techniques of emergency medical care in accordance with national and state curriculum. Study of the human body, patient assessment, treatment of medically or traumatically compromised patients, special hazards, medical operations, intravenous (IV) monitoring, patient-assisted medication administration, automated external defibrillators (AEDs), and blood-glucose monitoring. The course meets the current Hazardous Materials First Responder certification requirements for the Arizona Center for Fire Service Excellence. The course will cover basic methods of recognition and identification based upon the chemical and physical properties of hazardous materials, basic safety procedures when utilizing specific types of protective clothing and equipment, and basic tactical information relating to scene management. Confined space operations in accordance with the National Fire Protection Agency. | | | | | |
| EMC110 | 2022 Fall | Wildland Firefighter | | Basic-level course for individuals with little or no experience in the wildland environment. Preparation for | Prerequisites: None. | | CLK | 50 | |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | performing as a beginning-level wildland firefighter with an organized fire department engine or hand crew. Satisfies minimum standards for certification testing set forth by the National Wildland Coordinating Group (NWCG). | | | | | |
| EMT101 | 2020 Fall | Basic Life Support/Cardiopulmonary Resuscitation (CPR) for Health Care Providers | | Designed to provide the allied healthcare provider with the knowledge and skills to perform Basic Life Support (BLS) according to current guidelines for emergency cardiovascular care (ECC). | Prerequisites: None. | EMT101 may be repeated for credit. | Occ | L+L 0.5<br>0.5 0.5 | T |
| EMT101AB | 2018 Fall | Basic Life Support/Cardiopulmonary Resuscitation (CPR) Practicum for Health Care Providers | | Designed to assess the allied healthcare provider in the skills of Basic Life Support (BLS) according to current guidelines for emergency cardiovascular care (ECC). | Prerequisites: Successful completion of Healthcare Provider CPR AED Online Part 1 course from an American Heart Association (AHA) certified program. | EMT101AB may be repeated for credit. | Occ | L+L<br>0.25<br>0.25<br>0.25 | T |
| EMT102AB | 2018 Fall | Emergency Medical Responder | | A comprehensive course to train a lay person to provide care for patients suffering sudden illness or injury. For members of law enforcement agencies, industry, and the private sector. | Prerequisites: None. | | Occ | L+L 3.0<br>3.0 3.0 | T |
| EMT104 | 2020 Fall | Emergency Medical Technology | | Designed as the Emergency Medical Technician (EMT) lecture to prepare students for scope of practice and standard of care with comprehensive assessment, diagnostic technology, patient advocacy, ethical and professional behaviors, critical thinking, decision-making, and patient management of medical and trauma emergencies and non-emergencies. | Prerequisites: Appropriate score on Reading placement test to demonstrate minimum tenth grade level reading, or completion of an Associate's degree or higher from an accredited institution. | EMT104 students must meet National Registry of EMT requirements for certification. Additional information available at nremt.org. EMT104 may be repeated for credit. | Occ | LEC<br>10.0<br>10.0<br>10.0 | S |
| EMT104AA | 2020 Fall | Practical Skills Testing | | Manipulative skills testing of specific skills identified by the | Prerequisites: None. Corequisites: EMT104. | | Occ | LAB 0.5<br>0.5 0.5 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | scope of practice for EMT Basic Students. Successful completion qualifies the student for EMT Basic Written Exam for National Certification. | | | | | |
| EMT104AB | 2021 Spring | Applied Practical Studies for Emergency Medical Technology | | Simulation of actual emergency responses, with practical application of techniques and skills covered in EMT curricula. Scenario based learning applied to the techniques of emergency medical care in accordance with national and state curriculum. Practical application of anatomy, physiology, patient assessment, and treatment of medically or traumatically compromised patients, special hazards and medical operations. Also includes patient-assisted medication administration, semi-automatic external defibrillator and blood glucose monitoring. Students operate in outside, scenario based environments. | Prerequisites: None. Corequisites: EMT104. | EMT104AB may be repeated for credit. | Occ | LAB 0.5 0.5 0.5 | T |
| EMT104LL | 2020 Fall | Emergency Medical Technology Practicum | | Designed as the simulated Emergency Medical Technician (EMT) practicum in which the student synthesizes standard of care and scope of practice with comprehensive assessment and diagnostic technology, patient advocacy, ethical and professional behaviors, critical thinking, decision-making, and patient management of medical and trauma emergencies. Provides scenario based learning applied to the techniques of emergency medical care in | Prerequisites: A grade of C or better in EMT104 or permission of Instructor or Corequisites: EMT104. | EMT104LL may be repeated for credit. Students must meet National Registry of EMT requirements for certification. Additional information available at nremt.org. | Occ | LAB 2.0 3.5 3.5 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | accordance with national and state curriculum. | | | | | |
| EMT106 | 2018 Fall | Ambulance Operations | | Practical application of rules and regulations governing care and transport of patient. Inventory, methods of disinfection, and charge procedures covered. Practical and defensive driving techniques and maintenance of the ambulance demonstrated and practiced, according to the U.S. Department of Transportation (DOT) National Highway Traffic Safety Administration (NHTSA). | Prerequisites: EMT at any level of certification. | | Occ | L+L 2.0 2.0 2.0 | T |
| EMT108 | 2018 Fall | Tactical Safety and Street Survival for EMTs | | Principles of response to emergencies in potentially dangerous situations. Emphasis on recognizing and responding to potentially violent situations, including active crime scenes and domestic terrorism. Emphasis on personal protection, de-escalation, communication skills, defensive tactics, and interaction with local and national public safety and law enforcement professionals. | Prerequisites: Healthcare provider certification or licensure or police officer with POST certification. Level 1 DPS fingerprint clearance card or permission of Department or Division. | Occ | | L+L 3.0 3.0 3.0 | T |
| EMT116 | 2018 Fall | Emergency Medical Communications (EMD) | | Designed to educate and train individuals as the emergency link among the community, health care providers, and law enforcement agencies. Comprehensive program to educate and train in procedures of communications, interrogation, assessment, and deployment. Includes interactive computer lab and scheduled observation with assignment at a dispatch center. | Prerequisites: A grade of C or better in EMT101 or Corequisites: EMT101 or any current American Red Cross or CPR for the Professional Rescuer or American Heart Association Basic Life Support Health Care Provider validation. | | Occ | L+L 1.5 1.8 1.8 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| EMT120 | 1993 Spring | Spanish For Emergency-Care Providers | | Participative course for prehospital and other emergency-care providers. Vocabulary, pronunciations, voice inflections, phrases, conversational terms, and methods of interviewing the ill or injured victim. Cultural information to facilitate approach and interaction with the victim, family, and/or significant other. Documentation of the interview content on the prehospital encounter form. | Prerequisites: Certified EMT or licensed medical personnel. | Occ | | LEC 1.0 1.0 1.0 | S |
| EMT165 | 2018 Fall | Pediatric Education for Prehospital Providers: Basic | | An interactive, scenario-based course designed for Basic EMTs (Emergency medical technicians) who are not yet practicing in the field. Enables these EMTs to perform a rapid assessment of sick and injured children in a variety of different circumstances. Includes use of pediatric assessment triangle, developmental differences, injury prevention, basic airway management techniques, recognition of medical emergencies such as pediatric trauma, mechanism of injury, submersion events, children with special health care needs, abuse and neglect, child and family interactions, use of specialized equipment, and special issues in pediatric transportation. Treatment to children is in accordance with recommendations of the American Academy of Pediatrics. | Prerequisites: A grade of C or better in EMT/FSC104 or permission of Instructor. | Occ | | L+L 2.0 2.87 2.87 | T |
| EMT200 | 2018 Fall | Refresher Course for Certified Emergency Medical Technicians | | Designed to meet National and Arizona Department of Health Services (A-DHS) | Prerequisites: Current validation in Basic Life Support (BLS) Health | EMT200 may be repeated for credit. | Occ | L+L 2.0 2.7 2.7 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | recertification for EMTs. Enhances the knowledge base of the Emergency Medical Technician (EMT) and reinforces basic skills competencies. | Care Provider/Professional Rescuer or permission of Instructor. | | | | |
| EMT200AA | 2012 Fall | EMT Certification Renewal Challenge | | Designed to contribute to Arizona Department of Health Services (A-DHS) Bureau of Emergency Medical Services (B-EMS) recertification requirements for Emergency Medical Technician (EMT) according to the U.S. Department of Transportation (DOT) EMT National Curriculum and the Arizona EMT Refresher Curriculum Guidelines. | Prerequisites: Current validation in Basic Life Support (BLS) Health Care Provider/Professional Rescuer or proof of current registry with the National Registry of Emergency Medical Technicians (NREMT). | | Occ | LEC 0.6 0.6 0.6 | S |
| EMT200AB | 2004 Fall | EMT-Basic Certification Expanded Refresher Challenge | | Designed to contribute to Arizona Department of Health Services (A-DHS) Bureau of Emergency Medical Services (B-EMS) recertification requirements for Emergency Medical Technician Basic (EMTB) according to the U.S. Department of Transportation (DOT) EMT-Basic National Curriculum and the Arizona EMT Basic Refresher Curriculum Guidelines. | Prerequisites: Current Basic Life Support American Heart Association Healthcare Provider CPR or equivalent and current EMT Basic certification in the state of Arizona Must be currently functioning as an EMT Basic. | | Occ | LEC 1.0 1.0 1.0 | S |
| EMT201 | 2018 Fall | Interactive Basic EMT Refresher | | Designed to contribute to Arizona Department of Health Services recertification requirements for Emergency Medical Technicians (EMT) according to the US Department of Transportation (DOT) EMT-Basic National Curriculum and the Arizona Basic EMT Refresher Curriculum Guidelines. Enhances the knowledge base of the EMT. Updates a wide variety of subjects | (Current EMT Basic certification in the state of Arizona or proof of current registry with the National Registry of Emergency Medical Technicians [NREMT]) and validation in Basic Life Support (BLS) Health Care Provider/Professional Rescuer. | | Occ | L+L 1.0 2.2 2.2 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | including respiratory and cardiac emergencies, and interaction with advanced life support providers | | | | | |
| EMT215 | 1994 Spring | Stress and Emergency Services Professionals | | Participative course designed to familiarize students with differences which exist in the socioeconomic, cultural, organizational, and technologic environments and the distress that can occur to emergency-care providers functioning in those arenas. Physiologic, psychologic and behavioral manifestations of distress as it relates to emergency responders. Explores distress management options with emphasis on individual techniques and organizational programs. | Prerequisites: Currently employed as prehospital-care provider or registered nurse working in the prehospital setting. | Occ | | LEC 3.0 3.0 3.0 | S |
| EMT230 | 2018 Fall | Advanced Concepts for EMTs | | Designed to meet Arizona Department of Health Services recertification requirements for EMTs. Enhances the knowledge base of the Emergency Medical Technician (EMT) and incorporates new information into daily practice. Updates a wide variety of subjects including medical and trauma emergencies, cardiac life support, interaction with advanced life support providers, and emergency scene management | Current EMT certification in the state of Arizona. | Occ | | L+L 1.5 1.5 1.5 | T |
| EMT238 | 2004 Fall | Vehicular Extrication and Patient Stabilization | FSC238 | Participative course designed for the Emergency Medical Technicians (EMT). Incorporates new knowledge and skills necessary to access, extricate, and care for victims of crash incidents. Provides exposure to scene | Basic EMT certification current enrollment in an EMT-Basic program nurse with emergency department experience or law enforcement personnel or permission of Instructor. | | | LEC 2.0 2.0 2.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | management, including size-up, disentanglement, victim stabilization for single and multi-victim situations, hazardous materials incidents, integration of local emergency medical services (EMS) for patient assessment and management, and standard operating procedures to selected victim scenarios | | | | | |
| EMT245 | 2018 Fall | Trauma Management I | | Designed to instruct prehospital care personnel in the critical skills necessary to manage the trauma victim and the emergency scene through the Incident Command System (ICS). Enhances basic emergency medical technology (EMT) skills by focusing on emergency care interventions. Provides exposure to victim assessment, initial treatment, resuscitative techniques, victim stabilization, transportation of the victim to an emergency care facility, and documentation | Basic EMT certification or nurse with emergency room experience or permission of Department or Division. | Occ | | L+L 2.0 3.5 3.5 | T |
| EMT258 | 2023 Fall | Victimology and Crisis Management in Public Safety | AJS/FSC258 | Victimology, the criminal justice system, techniques of crisis intervention and management, and the importance of a multicultural and global perspective. Includes violent crimes, sexual assault, family violence, post-traumatic stress disorder, the role of substance abuse, developing effective coping skills of victims and responders, appropriate community resources, and the cultural responsiveness of the justice system. | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| EMT260 | 2018 Fall | Advanced Airway Management for EMTs | | Designed to instruct emergency care personnel in the critical skills necessary to establish and maintain an airway of the traumatized or medically compromised patient. Airway skills include oxygen therapy with all adjuncts, administration of pharmaceuticals via the endotracheal (ET)/pharyngeal tracheal lumen airway (PTLA), management of the airway as a route for medications, and invasive airway procedures. Content concurrent with Department of Transportation Guidelines and the American College of Surgeons Division on Trauma Standards of Care. | Prerequisites: Certified EMT or licensed registered nurse with emergency department experience; EMT or emergency department licensed registered nurse with Medical Control physician supervision according to Arizona Department of Health Services (A-DHS) Bureau of Emergency Medical Services (B-EMS). | Occ | | L+L 2.0 2.0 2.0 | T |
| EMT264 | 2018 Fall | Vascular Access for EMTs | | Includes review of anatomy of the circulatory system. Skills include peripheral intravenous cannulation techniques, fluid resuscitation, obtaining venous blood samples for laboratory analysis, infection control techniques for the safety of self and victim, and complications of intravenous cannulation; each and all with medical control. Content concurrent with American College of Surgeons Committee on Trauma, Standards of Care | (EMT-Basic or registered nurse with emergency department experience or licensed physician or physician assistant) or permission of Instructor. | | Occ | L+L 1.0 1.0 1.0 | T |
| EMT298AA | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. | Prerequisites: Permission of Program Director or Instructor. | | Occ | LAB 1.0 1.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | | | | | |
| EMT298AB | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | Prerequisites: Permission of Program Director or Instructor. | Occ | | LAB 2.0 2.0 0.0 | Z |
| EMT298AC | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | Prerequisites: Permission of Program Director or Instructor. | Occ | | LAB 3.0 3.0 0.0 | Z |
| ENG071 | 2015 Summer | Preparatory Academic Writing I | | Emphasizes preparation for college level composition and related reading tasks with a focus on communicating through complete, grammatically correct writing, organized to communicate a central idea. | Prerequisites: Appropriate writing placement test score or permission of Department or Division. | | | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| ENG081 | 2015 Summer | Preparatory Academic Writing II | | Emphasizes preparation for college-level composition and related reading tasks with a focus on critical writing, reading, and thinking skills and processes | Prerequisites: Appropriate writing placement test score, or a grade of C or better in ENG071 or ESL077, or permission of Department or Division. | | | LEC 3.0 3.0 3.0 | S |
| ENG091 | 2016 Fall | Preparatory Academic Writing III | | Emphasizes preparation for first year composition with a focus on critical writing, reading, and thinking skills and processes at an increased level of academic complexity. | Prerequisites: Appropriate writing placement test score, or a grade of C or better in ENG081 or ESL087, or permission of Department or Division. | Acad | | LEC 3.0 3.0 3.0 | S |
| ENG095AA | 2018 Fall | Tutored Developmental Writing: Generating and Drafting | | Structured tutorial assistance in writing skills to help students achieve success in a developmental writing course in which they are concurrently enrolled. Emphasis on generative writing skills. | Prerequisites: None. Corequisites: ENG081 or ENG091. | ENG095AA may be repeated for credit. Acad | Acad | L+L 1.0 1.0 1.0 | T |
| ENG095AB | 2018 Fall | Tutored Developmental Writing: Revising and Editing | | Structured tutorial assistance in writing skills to help students achieve success in a developmental writing course in which they are concurrently enrolled. Emphasis on revising and editing skills. | Prerequisites: None. Corequisites: ENG081 or ENG091. | ENG095AB may be repeated for credit. | Acad | L+L 1.0 1.0 1.0 | T |
| ENG100AA | 2012 Fall | American-English Spelling System | | American-English spelling system rules, mnemonic devices. | Prerequisites: Appropriate English placement test score, or a grade of C or better in ENG091 or ESL097 or permission of Instructor. | | Acad | LEC 1.0 1.0 1.0 | S |
| ENG100AB | 2012 Fall | Vocabulary Development | | Latin and Greek derivatives, development of competency and discrimination in word choice, specialized vocabulary. | Prerequisites: Appropriate English placement test score or a grade of C or better in ENG091 or ESL097 or permission of Instructor. | | Acad | LEC 1.0 1.0 1.0 | S |
| ENG100AC | 2012 Fall | The Mechanics of Written English | | Review of the mechanics of written English, including punctuation, arbitrary marks and usages, capitalization, agreement, tense, and sentence patterns. | Prerequisites: Appropriate English placement test score or a grade of C or better in ENG091 or ESL097 or permission of Instructor. | | Acad | LEC 1.0 1.0 1.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| ENG100AD | 2012 Fall | Grammar and Usage | | The social aspects of grammar and usage, including appropriate levels of formal and informal language. | Prerequisites: Appropriate English placement test score or a grade of C or better in ENG091 or ESL097 or permission of Instructor. | | Acad | LEC 1.0 1.0 1.0 | S |
| ENG100AE | 2012 Fall | Composition Skills | | Developing generative and evaluative writing skills using selected software programs. | Prerequisites: Appropriate English placement test score or a grade of C or better in ENG091 or ESL097 or permission of Instructor. | | Acad | LEC 1.0 1.0 1.0 | S |
| ENG101 | 2023 Fall | First-Year Composition | | Emphasis on rhetoric and composition with a focus on expository writing and understanding writing as a process. Establishing effective college-level writing strategies through four or more writing projects comprising at least 3,000 words in total. | Prerequisites: Appropriate writing placement test score, or (a grade of C or better in ENG091, or ESL097, or WAC101), or (a grade of B or better in ALT100), or (a grade of C in ALT100 and Corequisites: ENG101LL, or ENG107LL, or WAC101, or ENG100A+), or (a grade of C or better in ESL202 and Corequisites: ENG101LL, or ENG107LL, or WAC101, or ENG100A+). | Acad | | LEC 3.0 3.0 3.0 | S |
| ENG101LL | 2023 Fall | First-Year Composition Lab | | Supplemental instruction for composition courses. Focus on developing effective writing processes to address a range of rhetorical situations. | Prerequisites: Appropriate writing placement test score, or (a grade of C or better in ESL202. Corequisites: ENG101, or ENG107). | | | LAB 1.0 3.0 3.0 | T |
| ENG102 | 2011 Fall | First-Year Composition | | Emphasis on rhetoric and composition with a focus on persuasive, research-based writing and understanding writing as a process. Developing advanced college- | Prerequisites: A grade of C or better in ENG101. | Course Attribute(s): General Education Designation: First-Year Composition - [FYC] Arizona Shared Unique Number SUN#: ENG 1102 | Acad | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | level writing strategies through three or more writing projects comprising at least 4,000 words in total. | | | | | |
| ENG107 | 2023 Fall | First-Year Composition for ESL | | Equivalent of ENG101for students of English as a Second Language (ESL). Emphasis on rhetoric and composition with a focus on expository writing and understanding writing as a process. Establishing effective college-level writing strategies through four or more writing projects comprising at least 3,000 words in total. | Prerequisites: Appropriate writing placement test score, or (a grade of C or better in ENG091, or ESL097, or WAC101), or (a grade of B or better in ALT100), or (a grade of C in ALT100 and Corequisites: ENG101LL, or ENG107LL, or WAC101, or ENG100A+), or (a grade of C or better in ESL202 and Corequisites: ENG101LL, or ENG107LL, or WAC101, or ENG100A+). | Acad | | LEC 3.0 3.0 3.0 | S |
| ENG107LL | 2023 Fall | First-Year Composition Lab for ESL | | Equivalent of ENG101LL for students of English as a Second Language (ESL). Supplemental instruction for composition courses. Focus on developing effective writing processes to address a range of rhetorical situations. | Prerequisites: Appropriate writing placement test score, or (a grade of C or better in ESL202. Corequisites: ENG101, or ENG107). | | | LAB 1.0 3.0 3.0 | T |
| ENG108 | 2020 Fall | First-Year Composition for ESL | | Equivalent of ENG102 for students of English as a Second Language (ESL). Emphasis on rhetoric and composition with a focus on persuasive, research-based writing and understanding writing as a process. Developing advanced college-level writing strategies through three or more writing projects comprising at least 4,000 words in total. | Prerequisites: A grade of C or better in ENG107. | Course Attribute(s): General Education Designation: First-Year Composition - [FYC]<br><br>Acad | Acad | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| ENG111 | 2023 Fall | Technical and Professional Writing | | Covers analyzing, planning, organizing, researching, and writing correspondence, reports, and presentations for specific work-related audiences. Includes integrating data and graphics into work-related documents and presentations. | Prerequisites: ENG101 with a grade of C or better or permission of Instructor. | Course Attribute(s): General Education Designation: Literacy and Critical Inquiry - [L] | Acad | LEC 3.0 3.0 3.0 | S |
| ENG183 | 2023 Fall | Basic Manuscript Writing: Fiction | | Basic skills and techniques used by the professional fiction writer in writing fiction for publication, including characterization, plot development, writing dialogue, setting scenes, and establishing mood. Emphasis on writing scenes. | Prerequisites: None. | ENG183 may be repeated for a total of six (6) credit hours. | Acad | LEC 3.0 3.0 3.0 | S |
| ENG200 | 1994 Fall | Reading and Writing About Literature | | Emphasis on critical analysis of various genres of literature; includes study of necessary terminology, introduction to methods of literary criticism, and practice in interpretation and evaluation | Prerequisites: A grade of C or better in ENG102. | Course Attribute(s): General Education Designation: Humanities, Arts and Design - [HU] General Education Designation: Literacy and Critical Inquiry - [L] | Acad | LEC 3.0 3.0 3.0 | S |
| ENG205 | 2001 Spring | Nature of Poetry | | A foundational course which focuses on the reciprocal nature of reading and writing poetry as well as acquiring a "critical vocabulary" for the appreciation of poetry. Examines the technical, cultural and aesthetic sources of established poets as well as work produced by student writers. Explores the creative writing process as well as poetic themes, styles and perspectives that contribute to the writing of original student poetry | Prerequisites: None. | | Acad | LEC 3.0 3.0 3.0 | S |
| ENG210 | 1994 Summer I | Creative Writing | | Skills and techniques used in the production of marketable materials for contemporary publications that buy prose | Prerequisites: A grade of C or better in ENG102 or permission of Department or Division. | ENG210 may be repeated for a total of six (6) credit hours. | Acad | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | fiction, poetry, and expository articles. | | | | | |
| ENG211 | 1993 Spring | Screenwriting | | Principles and techniques necessary in planning, researching, and writing screenplays. | Prerequisites: A grade of C or better in ENG101 and ENG102 or permission of Instructor. | ENG211 may be repeated for a total of six (6) credit hours. | Acad | LEC 3.0 3.0 3.0 | S |
| ENG213 | 2010 Summer I | Introduction to the Study of Language | | Study of language as code; phonetics, phonology, morphology, syntax, semantics; language acquisition; historical and socio-linguistics | Prerequisites: A grade of C or better in ENG102 or ENG111 or permission of Instructor. | Course Attribute(s): General Education Designation: Humanities, Arts and Design - [HU] General Education Designation: Social and Behavioral Sciences - [SB] | Acad | LEC 3.0 3.0 3.0 | S |
| ENG215 | 1995 Fall | Strategies of Academic Writing | | Advanced course in techniques of analyzing and writing academic expository prose. Writing to be research based. | Prerequisites: A grade of C or better in ENG102 or ENG111 or permission of Instructor. | Course Attribute(s): General Education Designation: Literacy and Critical Inquiry - [L] | Acad | LEC 3.0 3.0 3.0 | S |
| ENG216 | 1992 Fall | Persuasive Writing on Public Issues | | Advanced course in techniques of analyzing and writing persuasive arguments addressing topics of current public interest. Papers research based | Prerequisites: A grade of C or better in ENG102. | Course Attribute(s): General Education Designation: Literacy and Critical Inquiry - [L] | Acad | LEC 3.0 3.0 3.0 | S |
| ENG217 | 2005 Spring | Personal and Exploratory Writing | | Using writing to explore one's self and the world one lives in; emphasis on journal writing as a source and inspiration for public writing | Prerequisites: A grade of C or better in ENG101 or ENG107 or equivalent. | Course Attribute(s): General Education Designation: Literacy and Critical Inquiry - [L] | Acad | LEC 3.0 3.0 3.0 | S |
| ENG218 | 2005 Spring | Writing About Literature | | Advanced writing course requiring analytical and expository essays about fiction, poetry, and drama. For non-English majors | Prerequisites: A grade of C or better in ENG102. | Course Attribute(s): General Education Designation: Humanities, Arts and Design - [HU] General Education Designation: Literacy and Critical Inquiry - [L] | Acad | LEC 3.0 3.0 3.0 | S |
| ENG235 | 2023 Fall | Magazine Article Writing | | Basic skills and techniques used by professional writers for publication in magazines. Includes analyzing markets, identifying article slant, research techniques, editing, and submission procedures. Emphasis on nonfiction. | Prerequisites: None. | ENG235 may be repeated for a total of six (6) credit hours. | Acad | LEC 3.0 3.0 3.0 | S |
| ENG295 | 2010 Fall | Teaching Composition in the Two-Year College | | Overview of the theoretical and pedagogical strategies of | Prerequisites: Bachelor's degree and permission of Instructor. | | Acad | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | teaching composition in the community college. | | | | | |
| ENG296WA | 2023 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor. | | Acad | LAB 1.0 5.0 0.0 | Z |
| ENG296WB | 2023 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor. | | Acad | LAB 2.0 10.0 0.0 | Z |
| ENG296WC | 2023 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or | | Acad | LAB 3.0 15.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor. | | | | |
| ENG296WD | 2023 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor. | | Acad | LAB 4.0 20.0 0.0 | Z |
| ENG298AA | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | Prerequisites: Permission of Program Director or Instructor. | | Acad | LAB 1.0 1.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| ENG298AB | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | Prerequisites: Permission of Program Director or Instructor. | | Acad | LAB 2.0 2.0 0.0 | Z |
| ENG298AC | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | Prerequisites: Permission of Program Director or Instructor. | | Acad | LAB 3.0 3.0 0.0 | Z |
| ENH110 | 2003 Spring | Introduction to Literature | | Introduction to international literature through various forms of literary expression; e.g., poetry, drama, essay, biography, autobiography, short story, and novel. Provides a global overview of literature with special emphasis on diverse cultural contributions of women, African Americans, Asian Americans, Hispanic Americans, and Native Americans | Prerequisites: None. | Course Attribute(s): General Education Designation: Cultural Diversity - [C] General Education Designation: Humanities, Arts and Design - [HU] | Acad | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| ENH111 | 2002 Fall | Literature and the American Experience | | Introduction to the foundations and diversity of American culture through a survey of its literature, including minority and women writers. Exploration of various facets of American culture including frontier, regional, rural, and urban life; ethnic, racial, and immigrant experience; and political and social philosophies | Prerequisites: None. | | Acad | LEC 3.0 3.0 3.0 | S |
| ENH112 | 1997 Fall | Chicano Literature | | Introduction to the works of Mexican-American writers of the Southwest. Samples poetry, fiction, and essays viewed in their relationship to American cultural heritage and to contemporary culture | Prerequisites: None. | Course Attribute(s): General Education Designation: Cultural Diversity - [C] General Education Designation: Humanities, Arts and Design - [HU] | Acad | LEC 3.0 3.0 3.0 | S |
| ENH113 | 2023 Fall | Writers/Directors and Current Issues | | In-depth analysis of literary texts by contemporary writers/directors throughout the world, including essayists, journalists, playwrights, novelists, directors, short story writers, and/or poets. Examines perspectives representing a variety of cultures. Critical responses to current issues of worldwide interest examined, including topics as environment, technology, medicine, economics, politics, education, human rights, law and order. | Prerequisites: None. | ENH113 may be repeated for a total of six (6) credit hours. Course Attribute(s): General Education Designation: Humanities, Arts and Design - [HU] | Acad | LEC 3.0 3.0 3.0 | S |
| ENH114 | 2011 Spring | African-American Literature | | Survey of major African-American writers from Colonial period through the present; analysis of trends and movements within African-American literary history; analysis of literary types and selected works | Prerequisites: None. | Course Attribute(s): General Education Designation: Cultural Diversity - [C] General Education Designation: Humanities, Arts and Design - [HU] | Acad | LEC 3.0 3.0 3.0 | S |
| ENH117 | 2002 Fall | Rap Literature: The Oral Tradition | | Survey of selected rap poetry looking at the oral tradition of Africa, the Caribbean, and the | Prerequisites: None. | | Acad | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | United States as precursors to East Coast, West Coast, Southern, North Central, and International development of the genre. Investigation of cultural environments, historical events, competitions (the "battles"), artists' biographies, and parallel art forms as they relate to the analysis of the genre and its themes | | | | | |
| ENH120 | 2008 Fall | The Literature of Science Fiction | | Surveys the last one hundred and fifty years of Science Fiction literature. Investigates the similarities between Science Fiction and other imaginative literatures Examines the Science Fiction genre, sub genres, and themes from a variety of perspectives, as well as social issues | Prerequisites: None. | | Acad | LEC 3.0 3.0 3.0 | S |
| ENH130 | 2009 Spring | Mystery Fiction from the Nineteenth Century to the Present | | A study of mystery fiction as a literary genre and as a reflection of culture through the writings of significant authors | Prerequisites: None. | | Acad | LEC 3.0 3.0 3.0 | S |
| ENH140 | 2019 Fall | Representations of Society in Literature and Film | | Explores how a particular field of endeavor is and has been represented in narrative literature and film, using examples from a range of U.S. media. Investigates the ways in which narrative representation engages changing cultural and historical contexts, and shapes of how fields of human endeavor are perceived. Focus on analysis of narratives' form and content, and the construction of meaning. | Prerequisites: Appropriate reading placement test score and eligibility for ENG101 as indicated by appropriate writing placement test score. | Acad | | LEC 3.0 3.0 3.0 | S |
| ENH140AA | 2020 Spring | Sports in Literature and Film | | Explores how sports are and have been represented in | Prerequisites: Appropriate reading | Course Attribute(s): General Education Designation: Cultural | Acad | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | narrative literature and film, using examples from a range of U.S. media. Investigates the ways in which narrative representation engages changing cultural and historical contexts, and shapes of how fields of human endeavor are perceived. Focus on analysis of narratives' form and content, and the construction of meaning. | placement test score and eligibility for ENG101 as indicated by appropriate writing placement test score. | Diversity - [C] General Education Designation: Humanities, Arts and Design - [HU] Common Competency Course | | | |
| ENH140AB | 2019 Fall | Business in Literature and Film | | Explores how business is and has been represented in narrative literature and film, using examples from a range of U.S. media. Investigates the ways in which narrative representation engages changing cultural and historical contexts, and shapes of how fields of human endeavor are perceived. Focus on analysis of narratives' form and content, and the construction of meaning. | Prerequisites: Appropriate reading placement test score and eligibility for ENG101 as indicated by appropriate writing placement test score. | Acad | | LEC 3.0 3.0 3.0 | S |
| ENH140AC | 2019 Fall | Science in Literature and Film | | Explores how science is and has been represented in narrative literature and film, using examples from a range of U.S. media. Investigates the ways in which narrative representation engages changing cultural and historical contexts, and shapes of how fields of human endeavor are perceived. Focus on analysis of narratives' form and content, and the construction of meaning. | Prerequisites: Appropriate reading placement test score and eligibility for ENG101 as indicated by appropriate writing placement test score. | Acad | | LEC 3.0 3.0 3.0 | S |
| ENH140AD | 2019 Fall | Art in Literature and Film | | Explores how art is and has been represented in narrative literature and film, using | Prerequisites: Appropriate reading placement test score | | | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | examples from a range of U.S. media. Investigates the ways in which narrative representation engages changing cultural and historical contexts, and shapes of how fields of human endeavor are perceived. Focus on analysis of narratives' form and content, and the construction of meaning. | and eligibility for ENG101 as indicated by appropriate writing placement test score. | | | | |
| ENH140AE | 2019 Fall | Education in Literature and Film | | Explores how education is and has been represented in narrative literature and film, using examples from a range of U.S. media. Investigates the ways in which narrative representation engages changing cultural and historical contexts, and shapes of how fields of human endeavor are perceived. Focus on analysis of narratives' form and content, and the construction of meaning. | Prerequisites: Appropriate reading placement test score and eligibility for ENG101 as indicated by appropriate writing placement test score. | Acad | | LEC 3.0 3.0 3.0 | S |
| ENH140AF | 2019 Fall | Law in Literature and Film | | Explores how law is and has been represented in narrative literature and film, using examples from a range of U.S. media. Investigates the ways in which narrative representation engages changing cultural and historical contexts, and shapes of how fields of human endeavor are perceived. Focus on analysis of narratives' form and content, and the construction of meaning. | Prerequisites: Appropriate reading placement test score and eligibility for ENG101 as indicated by appropriate writing placement test score. | Acad | | LEC 3.0 3.0 3.0 | S |
| ENH140AG | 2019 Fall | Medicine in Literature and Film | | Explores how medicine is and has been represented in narrative literature and film, using examples from a range | Prerequisites: Appropriate reading placement test score and eligibility for | | | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | of U.S. media. Investigates the ways in which narrative representation engages changing cultural and historical contexts, and shapes of how fields of human endeavor are perceived. Focus on analysis of narratives' form and content, and the construction of meaning. | ENG101 as indicated by appropriate writing placement test score. | | | | |
| ENH190 | 2011 Spring | Introduction to US Ethnic Literature | | Introduction to the US ethnic literatures of African Americans, Arab Americans, Asian Americans, Latinas/os, Native Americans, Mixed Race, and other emerging ethnic groups through various expressions. Examines the interconnections of the various experiences of racialized groups living in the US. Provides ethnic US literature a global context through study of the interconnections with the literatures of Africa, Asia, Latin America, and Oceania. Focus on literary production of at least four specific US ethnic groups and relevant international literatures. | Prerequisites or Corequisites: ENG101 or ENG107. | Course Attribute(s): General Education Designation: Cultural Diversity - [C] General Education Designation: Historical Awareness - [H] General Education Designation: Humanities, Arts and Design - [HU] | Acad | LEC 3.0 3.0 3.0 | S |
| ENH201 | 2007 Fall | World Literature Through the Renaissance | | Examines a selection of the world's literary masterpieces within their cultural contexts from ancient times through the Renaissance. Analyzes the influences of major literary philosophies, themes, genre, and styles. Assesses the contributions of major writers. Introduces the terminology of literary analysis | Prerequisites: None. | Course Attribute(s): General Education Designation: Global Awareness - [G] General Education Designation: Historical Awareness - [H] General Education Designation: Humanities, Arts and Design - [HU] | Acad | LEC 3.0 3.0 3.0 | S |
| ENH202 | 2009 Summer I | World Literature After the Renaissance | | Includes a selection of the world's literary masterpieces from the Renaissance to modern times | Prerequisites: None. | Course Attribute(s): General Education Designation: Historical Awareness - [H] General Education Designation: | Acad | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Humanities, Arts and Design - [HU] | | | |
| ENH204 | 2007 Fall | Introduction to Contemporary Literature | | Examines the work of major writers in poetry, fiction and drama from 1945 to the present. Examines important movements that have developed within these genre since 1945 | Prerequisites: None. | Course Attribute(s): General Education Designation: Humanities, Arts and Design - [HU] | Acad | LEC 3.0 3.0 3.0 | S |
| ENH206 | 2000 Fall | Nature and Environmental Literature | | Investigates major themes in nature and environmental writing. Explores relationship between humanity and the environment as expressed through fiction, non-fiction, and poetry. Examines how literature drives attitudes and policies | Prerequisites: None. | Course Attribute(s): General Education Designation: Humanities, Arts and Design - [HU] | Acad | LEC 3.0 3.0 3.0 | S |
| ENH214 | 1995 Fall | Poetry Study | | Involves reading, discussing, and analyzing poetry of various forms and from selected periods | Prerequisites: None. | Course Attribute(s): General Education Designation: Humanities, Arts and Design - [HU] | Acad | LEC 3.0 3.0 3.0 | S |
| ENH220 | 2023 Spring | Gender, Media, and Culture | | Introduction to gender and its intersections with race, ethnicity, class, sexuality, nationality, ability, and country of origin in media. Examines film, television, popular culture, advertising, gaming, print and digital media, music and other forms of media. | Prerequisites: A grade of C or better in ENG101 or ENG107. | Course Attribute(s): General Education Designation: Cultural Diversity - [C] General Education Designation: Humanities, Arts and Design - [HU] | Acad | LEC 3.0 3.0 3.0 | S |
| ENH221 | 2005 Fall | Survey of English Literature Before 1800 | | Emphasizes the social and political backgrounds as well as the form and content of English literature from Anglo-Saxon times to the end of the eighteenth century. | Prerequisites: A grade of C or better in (ENG101 or ENG107) or equivalent. | Course Attribute(s): General Education Designation: Humanities, Arts and Design - [HU] | Acad | LEC 3.0 3.0 3.0 | S |
| ENH222 | 2005 Fall | Survey of English Literature After 1800 | | Emphasizes the social and political backgrounds as well as the form and content of English literature in the nineteenth and twentieth centuries | Prerequisites: A grade of C or better in (ENG101 or ENG107) or equivalent. | Course Attribute(s): General Education Designation: Historical Awareness - [H] General Education Designation: Humanities, Arts and Design - [HU] | Acad | LEC 3.0 3.0 3.0 | S |
| ENH230 | 1995 Fall | Introduction To Shakespeare | | Introduces Shakespeare the playwright, the sonneteer, the linguist, and the citizen of the | Prerequisites: None. | Course Attribute(s): General Education Designation: | Acad | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | 17th century. Considers the major tragedies, comedies, histories, and sonnets; focuses on the use of language; and connects the writer to the time. Some emphasis on Shakespeare's influence through the centuries, noting parallels between the late 16th century and the late 20th century | | Humanities, Arts and Design - [HU] | | | |
| ENH231 | 2006 Fall | Introduction to Shakespeare: The Early Plays | | Introduces Shakespeare, the playwright and linguist, and the late 16th century. Considers representative comedies, histories, and tragedies from Shakespeare's early period, from 1590-1599. Focuses on the use of language and connects the writer to his historical era. Also considers Shakespeare's relevance to the present time . | Prerequisites: None. | Student may receive credit for only one of the following: ENH230 or ENH231. Course Attribute(s): General Education Designation: Humanities, Arts and Design - [HU] | Acad | LEC 3.0 3.0 3.0 | S |
| ENH232 | 2006 Fall | Introduction to Shakespeare: The Late Plays | | Introduces Shakespeare, the playwright and linguist, and the early 17th century. Considers representative comedies, histories, tragedies, and romances from Shakespeare's late period, 1600-1611. Focuses on the use of language and connects the writer to his historical era. Also considers Shakespeare's relevance to the present time. | Prerequisites: None. | Student may receive credit for only one of the following: ENH230 or ENH232. Course Attribute(s): General Education Designation: Humanities, Arts and Design - [HU] | Acad | LEC 3.0 3.0 3.0 | S |
| ENH235 | 2006 Fall | Survey of Gothic Literature | | A study of the origins, common elements and characteristics, and historical development of Gothic literature with an exploration of the literary techniques and psychological aspects of the genre | Prerequisites: None. | Course Attribute(s): General Education Designation: Humanities, Arts and Design - [HU] | Acad | LEC 3.0 3.0 3.0 | S |
| ENH241 | 2018 Fall | American Literature Before 1860 | | Includes literature written prior to 1860 in the United States. | Prerequisites: A grade of C or better in ENG101. | Course Attribute(s): General Education Designation: Humanities, Arts and Design - | Acad | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | [HU] General Education Designation: Cultural Diversity - [C] General Education Designation: Literacy and Critical Inquiry - [L] | | | |
| ENH242 | 1994 Fall | American Literature After 1860 | | Includes literature written after 1860 in the United States | Prerequisites: None. | Course Attribute(s): General Education Designation: Humanities, Arts and Design - [HU] | Acad | LEC 3.0 3.0 3.0 | S |
| ENH245 | 2013 Spring | J.R.R. Tolkien and C.S. Lewis: Battling Modernism | | Focuses on the writings, language, themes, influences and vision of J.R.R. Tolkien and C.S. Lewis in contrast to the ideas and literature of the Modernist movement. | Prerequisites: None. | Course Attribute(s): General Education Designation: Humanities, Arts and Design - [HU] | Acad | LEC 3.0 3.0 3.0 | S |
| ENH251 | 1999 Spring | Mythology | | Deals with the myths and legends of civilizations with the greatest influence upon the development of the literature and culture of the English speaking people, and compares those myths with myths from other cultures | Prerequisites: None. | Course Attribute(s): General Education Designation: Global Awareness - [G] General Education Designation: Humanities, Arts and Design - [HU] | Acad | LEC 3.0 3.0 3.0 | S |
| ENH253 | 2021 Fall | Contemporary Global Literature and Film | | Characteristics of literary and cinematic mediums. Challenges of adapting literature to film. Global examination of historical, religious, socio-economic, political, and colonial/post colonial themes depicted in Western and non-Western literature and film (e. g., Africa, Asia, and Latin America) outside the United States. Use of narrative in each medium and how it translates various global/international perspectives and cultural assumptions. Specific genres present in literature and film. Cultural metaphors and symbols used in literature and film | Prerequisites: A grade of C or better in ENG101. | Course Attribute(s): General Education Designation: Global Awareness - [G] General Education Designation: Humanities, Arts and Design - [HU] General Education Designation: Literacy and Critical Inquiry - [L] | Acad | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| ENH254 | 2001 Spring | Literature and Film | | Presents works of literature and their film versions and analyzes distinguishing techniques of each medium | Prerequisites: A grade of C or better in ENG101 or ENG107 or equivalent. | Course Attribute(s): General Education Designation: Humanities, Arts and Design - [HU] General Education Designation: Literacy and Critical Inquiry - [L] | Acad | LEC 3.0 3.0 3.0 | S |
| ENH255 | 2001 Spring | Contemporary U.S. Literature and Film | | Strengths and weaknesses of literature and film. Challenges of adapting literature to film. Addressing racial, ethnic, gender, class and religious differences between cultures and mediums. Use of narrative in each medium and how it translates various cultural values and assumptions. Specific genres present in literature and film. Cultural metaphors and symbols used in literature and film | Prerequisites: A grade of C or better in ENG101. | Course Attribute(s): General Education Designation: Cultural Diversity - [C] General Education Designation: Humanities, Arts and Design - [HU] General Education Designation: Literacy and Critical Inquiry - [L] | Acad | LEC 3.0 3.0 3.0 | S |
| ENH256 | 1999 Fall | Shakespeare on Film | | Presents cinematic versions of Shakespeare's plays and explains and analyzes how the dramatist's major tragedies, comedies, histories and romances have been presented on film | Prerequisites: None. | Course Attribute(s): General Education Designation: Humanities, Arts and Design - [HU] | Acad | LEC 3.0 3.0 3.0 | S |
| ENH259 | 1999 Fall | American Indian Literature | | Contemporary American Indian forms of literary expression. Selected oral traditions of American Indians. Trends and movements within American Indian literary history | Prerequisites: None. | Course Attribute(s): General Education Designation: Cultural Diversity - [C] General Education Designation: Humanities, Arts and Design - [HU] | Acad | LEC 3.0 3.0 3.0 | S |
| ENH260 | 1996 Fall | Literature of the Southwest | | Investigates major themes in Southwestern American literature including the Western myth, minority roles in the region's literature, control of nature versus primacy of nature, and growth. Both prose and poetry are examined with an emphasis on contemporary Southwestern writing | Prerequisites: None. | Course Attribute(s): General Education Designation: Cultural Diversity - [C] General Education Designation: Humanities, Arts and Design - [HU] | Acad | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| ENH261 | 2024 Fall | Indigenous Women's Literature of the Americas | AIS/WST261 | Explores contemporary voices of Indigenous women authors and artists in the Americas as expressed in poetry, fiction, nonfiction, drama, and oral traditions. Focuses on themes relevant to Indigenous women and examines the trends and movements within Indigenous peoples and women's literary history. Examines themes relevant to Indigenous women such as racial and gender oppression, reservation life, acculturation, and their sociopolitical activism in the Americas. | Prerequisites: A grade of C or better in ENG101 or ENG107. | | Acad | LEC 3.0 3.0 3.0 | S |
| ENH275 | 1994 Summer I | Modern Fiction | | Includes novels and short stories of modern writers which reflect significant themes of our time | Prerequisites: None. | Course Attribute(s): General Education Designation: Humanities, Arts and Design - [HU] | Acad | LEC 3.0 3.0 3.0 | S |
| ENH277 | 2014 Summer | Narrative Genres | | Explores how narrative shapes culture and culture shapes narrative through the international study of a particular genre in multiple media (e.g. literature, film, television, computer games, etc.). Investigates how a genre evolves, and how genre conventions influence narrative production and reception. Focus on analysis of key texts and their contexts. | Prerequisites: A grade of C or better in ENG101 or ENG107. ENH110 or ENG200 suggested but not required. | | | LEC 3.0 3.0 3.0 | S |
| ENH277AA | 2014 Summer | Dark Futures: Dystopian Narrative | | Explores how narrative shapes culture and culture shapes narrative through the international study of a particular genre in multiple media (e.g. literature, film, television, computer games, etc.). Investigates how a genre evolves, and how genre conventions influence narrative production and | Prerequisites: A grade of C or better in ENG101 or ENG107. ENH110 or ENG200 suggested but not required. | Acad | | LEC 3.0 3.0 3.0 | S |



Acad

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | reception. Focus on analysis of key texts and their contexts. | | | | | |
| ENH277AB | 2014 Summer | Whodunnits: Mystery Narrative | | Explores how narrative shapes culture and culture shapes narrative through the international study of a particular genre in multiple media (e.g. literature, film, television, computer games, etc.). Investigates how a genre evolves, and how genre conventions influence narrative production and reception. Focus on analysis of key texts and their contexts. | Prerequisites: A grade of C or better in ENG101 or ENG107. ENH110 or ENG200 suggested but not required. | | | LEC 3.0 3.0 3.0 | S |
| ENH277AC | 2014 Summer | Happily Ever: Children's Narrative | | Explores how narrative shapes culture and culture shapes narrative through the international study of a particular genre in multiple media (e.g. literature, film, television, computer games, etc.). Investigates how a genre evolves, and how genre conventions influence narrative production and reception. Focus on analysis of key texts and their contexts. | Prerequisites: A grade of C or better in ENG101 and ENG107. ENH110 or ENG200 suggested but not required. | Acad | | LEC 3.0 3.0 3.0 | S |
| ENH277AD | 2014 Summer | Stuff Blows Up: Action Narrative | | Explores how narrative shapes culture and culture shapes narrative through the international study of a particular genre in multiple media (e.g. literature, film, television, computer games, etc.). Investigates how a genre evolves, and how genre conventions influence narrative production and reception. Focus on analysis of key texts and their contexts. | Prerequisites: A grade of C or better in ENG101 and ENG107. ENH110 or ENG200 suggested but not required. | Acad | | LEC 3.0 3.0 3.0 | S |
| ENH277AE | 2019 Fall | Tour of Duty: War Narrative | | Explores how narrative shapes culture and culture shapes narrative through the international study of a particular genre in multiple | Prerequisites: A grade of C or better in ENG101 and ENG107. ENH110 or ENG200 | Course Attribute(s): General Education Designation: Global Awareness - [G] General Education Designation: Humanities, Arts and Design - Acad | Acad | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | media (e.g. literature, film, television, computer games, etc.). Investigates how a genre evolves, and how genre conventions influence narrative production and reception. Focus on analysis of key texts and their contexts. | suggested but not required. | [HU] General Education Designation: Literacy and Critical Inquiry - [L] | | | |
| ENH277AF | 2014 Summer | Heroic Quests: Fantasy Narrative | | Explores how narrative shapes culture and culture shapes narrative through the international study of a particular genre in multiple media (e.g. literature, film, television, computer games, etc.). Investigates how a genre evolves, and how genre conventions influence narrative production and reception. Focus on analysis of key texts and their contexts. | Prerequisites: A grade of C or better in ENG101 and ENG107. ENH110 or ENG200 suggested but not required. | | | LEC 3.0 3.0 3.0 | S |
| ENH277AG | 2021 Fall | Out There: Science Fiction Narrative | | Explores how narrative shapes culture and culture shapes narrative through the international study of a particular genre in multiple media (e.g. literature, film, television, computer games, etc.). Investigates how a genre evolves, and how genre conventions influence narrative production and reception. Focus on analysis of key texts and their contexts. | Prerequisites: A grade of C or better in ENG101 and ENG107. ENH110 or ENG200 suggested but not required. | Course Attribute(s): General Education Designation: Global Awareness - [G] General Education Designation: Historical Awareness - [H] General Education Designation: Literacy and Critical Inquiry - [L] | Acad | LEC 3.0 3.0 3.0 | S |
| ENH277AH | 2014 Summer | Facing Fear: Horror Narrative | | Explores how narrative shapes culture and culture shapes narrative through the international study of a particular genre in multiple media (e.g. literature, film, television, computer games, etc.). Investigates how a genre evolves, and how genre conventions influence narrative production and | Prerequisites: A grade of C or better in ENG101 and ENG107. ENH110 or ENG200 suggested but not required. | | | LEC 3.0 3.0 3.0 | S |



Acad

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | reception. Focus on analysis of key texts and their contexts. | | | | | |
| ENH277AI | 2014 Summer | Make 'Em Laugh: Comedy Narrative | | Explores how narrative shapes culture and culture shapes narrative through the international study of a particular genre in multiple media (e.g. literature, film, television, computer games, etc.). Investigates how a genre evolves, and how genre conventions influence narrative production and reception. Focus on analysis of key texts and their contexts. | Prerequisites: A grade of C or better in ENG101 and ENG107. ENH110 or ENG200 suggested but not required. | | | LEC 3.0 3.0 3.0 | S |
| ENH277AJ | 2014 Summer | Love and Passion: Romance Narrative | | Explores how narrative shapes culture and culture shapes narrative through the international study of a particular genre in multiple media (e.g. literature, film, television, computer games, etc.). Investigates how a genre evolves, and how genre conventions influence narrative production and reception. Focus on analysis of key texts and their contexts. | Prerequisites: A grade of C or better in ENG101 and ENG107. ENH110 or ENG200 suggested but not required. | Acad | | LEC 3.0 3.0 3.0 | S |
| ENH277AK | 2014 Summer | The Wild Frontier: Western Narrative | | Explores how narrative shapes culture and culture shapes narrative through the international study of a particular genre in multiple media (e.g. literature, film, television, computer games, etc.). Investigates how a genre evolves, and how genre conventions influence narrative production and reception. Focus on analysis of key texts and their contexts. | Prerequisites: A grade of C or better in ENG101 and ENG107. ENH110 or ENG200 suggested but not required. | Acad | | LEC 3.0 3.0 3.0 | S |
| ENH280 | 2008 Spring | Topics in American Literature | | Exploration of selected topic(s) in American Literature. Focuses on a theme, genre, era, technique, or critical approach. Includes | Prerequisites: A grade of C or better in (ENG101 or ENG107) or permission of Instructor. | Course Attribute(s): General Education Designation: Cultural Diversity - [C] General Education Designation: Humanities, Arts and Design - Acad | Acad | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | reading and interpretation of literature from a variety of cultures within the United States. | | [HU] ENH280 may be repeated for a total of nine (9) credit hours. | | | |
| ENH284 | 1995 Fall | 19th Century Women Writers | WST284 | Investigates major themes in literature by women writing in the 19th century including the nature of women's lives in the family, in work situations, and in society. Poetry, prose, essays and drama are examined with an emphasis on common themes | Prerequisites: None. | Course Attribute(s): General Education Designation: Cultural Diversity - [C] General Education Designation: Humanities, Arts and Design - [HU] | Acad | LEC 3.0 3.0 3.0 | S |
| ENH285 | 1995 Fall | Contemporary Women Writers | WST285 | Explores twentieth century literature (short stories, essays, plays, and poetry) written by women and about women. Focus on themes relevant to women's lives regardless of age, creed, or ethnic background | Prerequisites: None. | Course Attribute(s): General Education Designation: Cultural Diversity - [C] General Education Designation: Humanities, Arts and Design - [HU] | Acad | LEC 3.0 3.0 3.0 | S |
| ENH291 | 2023 Fall | Children's Literature | EDU291 | Review of folk and modern literature from a variety of world cultures, including application of literary criteria to folk and modern literature for children | Prerequisites: None. | Course Attribute(s): General Education Designation: Humanities, Arts and Design - [HU] | Acad | LEC 3.0 3.0 3.0 | S |
| ENH292 | 1988 Fall | Literature for Adolescents | | Reviews selected literature written for adolescents. Develops and applies literary criteria for the evaluation of adolescent literature | Prerequisites: None. | | Acad | LEC 3.0 3.0 3.0 | S |
| ENH294 | 2001 Fall | Multicultural Folktales | EDU294 STO294 | Study of multicultural folktales, exploring the impact of the oral tradition in American society and showing classroom applications | Prerequisites: None. | Course Attribute(s): General Education Designation: Cultural Diversity - [C] General Education Designation: Humanities, Arts and Design - [HU] | Acad | LEC 3.0 3.0 3.0 | S |
| ENH295 | 2010 Fall | Banned Books and Censorship | | History, motivations, and effects of censorship in a democratic society. Censorship and book banning as a method of silencing diverse voices. Critical analysis of banned or | Prerequisites: None. | Course Attribute(s): General Education Designation: Cultural Diversity - [C] General Education Designation: Humanities, Arts and Design - [HU] | Acad | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | challenged literature for children and adults. | | | | | |
| ENH296WA | 2023 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor. | | Acad | LAB 1.0 5.0 0.0 | Z |
| ENH296WB | 2002 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor. | | Acad | LAB 2.0 10.0 0.0 | Z |
| ENH296WC | 2023 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or | | Acad | LAB 3.0 15.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor. | | | | |
| ENH296WD | 2023 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor. | | Acad | LAB 4.0 20.0 0.0 | Z |
| ENH298AA | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | Prerequisites: Permission of Program Director or Instructor. | | Acad | LAB 1.0 1.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| ENH298AB | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | Prerequisites: Permission of Program Director or Instructor. | | Acad | LAB 2.0 2.0 0.0 | Z |
| ENH298AC | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | Prerequisites: Permission of Program Director or Instructor. | | Acad | LAB 3.0 3.0 0.0 | Z |
| ENV101 | 2023 Fall | Introduction to Environmental Science | | Introduces the interconnected nature of environmental science and solutions to environmental issues. | Prerequisites: None. | Course Attribute(s): General Education Designation: Natural Sciences (Quantitative) - [SQ] | Acad | LEC 4.0 3.0 3.0 LAB 0.0 3.0 3.0 | T |
| ENV119 | 2023 Fall | Introduction to Geospatial Technology for Environmental Science | | Introduction to geospatial technology concepts and applications including map reading, aerial photography interpretation, and remote sensing. Hands-on experience investigating the local environment with an air photo browser, remote imaging | Prerequisites: None. | | Acad | L+L 4.0 4.0 4.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | viewer, and a geographic information system. | | | | | |
| ENV219 | 2023 Fall | Geospatial Technology for Environmental Sciences I | | Hands-on experience using Geographic Information Systems (GIS), Remote Sensing (RS), and Global Positioning Systems (GPS) with applications using local environmental data. | Prerequisites: A grade of C or better in ENV119 or Corequisites: ENV119, or permission of Instructor. | | Acad | L+L 4.0 4.0 4.0 | T |
| ENV225 | 2023 Fall | Our Changing Planet | | Explores biogeochemical cycles and energy flows supporting life on Earth. Integrates core concepts of atmospheric science, geology, hydrology, ecology, and soil science to provide a foundational understanding of the critical zone and its relationship to environmental issues. Emphasizes the complex interactions among different systems and processes. | Prerequisites: None. | | Acad | LEC 3.0 3.0 3.0 | S |
| ENV273 | 2023 Fall | Geospatial Technology for Environmental Sciences II | | Advanced geospatial techniques including Geographic Information System (GIS) data integration, surface creation and analysis, 3D displays, and animation using local environmental data | Prerequisites: A grade of C or better in ENV219 or permission of Instructor. | | Acad | L+L 4.0 4.0 4.0 | T |
| ENV295 | 2023 Fall | Geospatial Technology for Environmental Sciences Projects | | Completion of a self-paced geospatial technology project. | Prerequisites: A grade of C or better in ENV273 or permission of Instructor. | ENV295 must be completed before a student takes the Spatial Technology And Remote Sensing (STARS) exam for certification in geospatial technology. | Acad | L+L 4.0 4.0 4.0 | T |
| EPD205 | 2013 Fall | Science, Technology, Engineering, and Mathematics (STEM) Education | | A basic introduction to Science, Technology, Engineering, and Mathematics (STEM) education in the United States. Emphasis on the understanding of state and national educational acad standards, the importance of the role of higher education in closing the achievement gap | Prerequisites: Must hold a Career and Technical Education (CTE), provisional or standard elementary, secondary or special education certificate, or permission of Department or Division. | | | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | and effective strategies for improving teaching in the STEM disciplines. Includes examples of successful school programs along with practical applications for teachers in the classroom and the involvement of community colleges in the STEM Education landscape. | | | | | |
| EPD212AA | 2014 Spring | Elementary Art Methods and Curriculum Development | | Overview and practical application of teaching elementary art. Covers teaching strategies, learning environments, teaching resources, and use of technology. Emphasis on State Board of Education Professional Teaching Standards. | Prerequisites: Must hold a Career and Technical Education (CTE) provisional or standard elementary, secondary, or special education teaching certificate, or permission of Department or Division. | EPD212AA requires an approved field experience. | Acad | LEC 3.0 3.0 3.0 | S |
| EPD212AB | 2014 Spring | Secondary Art Methods and Curriculum Development | | Overview and practical application of teaching secondary art. Covers teaching strategies, learning environments, teaching resources, and use of technology. Emphasis on State Board of Education Professional Teaching Standards. | Prerequisites: Must hold a Career and Technical Education (CTE) provisional or standard elementary, secondary, or special education teaching certificate, or permission of Department or Division. | EPD212AB requires an approved field experience. | Acad | LEC 3.0 3.0 3.0 | S |
| EPD216AA | 2014 Spring | Elementary Physical Education Methods and Curriculum Development | | Overview and practical application of teaching elementary physical education. Covers teaching strategies, learning environments, teaching resources, and use of technology. Emphasis on State Board of Education Professional Teaching Standards | Prerequisites: Must hold a Career and Technical Education (CTE) provisional or standard elementary, secondary, or special education teaching certificate, or permission of Department or Division. | EPD216AA requires an approved field experience. | Acad | LEC 3.0 3.0 3.0 | S |
| EPD216AB | 2014 Spring | Secondary Physical Education Methods and Curriculum Development | | Overview and practical application of teaching secondary physical education. Covers teaching strategies, learning environments, | Prerequisites: Must hold a Career and Technical Education (CTE) provisional or standard elementary, secondary, | EPD216AB requires an approved field experience. | Acad | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | teaching resources, and use of technology. Emphasis on State Board of Education Professional Teaching Standards. | or special education teaching certificate, or permission of Department or Division. | | | | |
| EPD225 | 2023 Fall | Foundations of Gifted Education and Identification of Gifted Learners | | Students explore definitions of giftedness, ways of identifying gifted and talented students, and types of programs and services developed for this population. Students address issues in educating gifted and talented students. | Prerequisites: Must hold a provisional or standard early childhood, elementary, secondary or special education teaching certificate. | | Acad | LEC 3.0 3.0 3.0 | S |
| EPD226 | 2023 Fall | Social and Emotional Needs of Gifted and Talented Students | | Students explore the intellectual, social, emotional, developmental, and educational characteristics of gifted and talented students. | Prerequisites: Must hold a provisional or standard early childhood, elementary, secondary or special education teaching certificate and a grade of C or better in EPD225 or (permission of Department or Division chairperson). | | | LEC 3.0 3.0 3.0 | S |
| EPD227 | 2023 Fall | Methods and Models for Differentiating Curriculum for Gifted Learners | | Students explore the theory and practice of teaching methods and differentiating curriculum and instruction for gifted learners. | Prerequisites: Must hold a provisional or standard early childhood, elementary, secondary or special education teaching certificate and a grade of C or better in EPD225 (or permission of Department or Division chairperson). | Acad | | LEC 3.0 3.0 3.0 | S |
| EPD228 | 2023 Fall | Creativity and Critical Thinking Skills in Gifted Education | | Students explore the concept of creativity, including theories and characteristics. Brain research on critical thinking and implications for gifted education is examined. | Prerequisites: Must hold a provisional or standard early childhood, elementary, secondary or special education teaching certificate and a grade of C or better in EPD225 (or permission of Department or Division chairperson). | Acad | | LEC 3.0 3.0 3.0 | S |



Acad

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| EPD250 | 2023 Fall | Teaching Elementary Number Sense and Operations Grades K-8 | | Focus on knowledge and skills for number sense and operations grades K-8. Covers learning environments, teaching resources, and use of technology in the presentation of numeration, number theory and computation. Emphasis on State Academic Math and Common Core Standards. Includes practical application of teaching strategies for elementary students as well as teachers of mathematics. | Prerequisites: Must hold a Career and Technical Education (CTE) provisional or standard elementary, secondary, or special education teaching certificate, or permission of Department or Division. | EPD250 requires an approved field experience. | Acad | LEC 6.0 6.0 6.0 | S |
| EPD251 | 2023 Fall | Teaching Geometry and Measurement Grades K-8 | | Focus on knowledge and skills for geometry and measurement concepts for grades K-8. Covers geometric properties, transformation of shapes, coordinate geometry and measurement. Emphasis on State Academic Math and Common Core Standards. Includes practical application of teaching strategies for elementary students as well as teachers of mathematics. | Prerequisites: A grade of C or better in EPD250. | EPD251 requires an approved field experience. | Acad | LEC 3.0 3.0 3.0 | S |
| EPD252 | 2023 Fall | Teaching Patterns, Algebra and Functions Grades K-8 | | Focus on knowledge and skills for patterns, algebra and functions grades K-8. Covers learning environments, teaching resources, and use of technology in the presentation of algebraic notation, properties, relations and functions, equations and inequalities. Emphasis on State Academic Math and Common Core Standards. Includes practical application of teaching strategies for elementary students as well as teachers of mathematics. | Prerequisites: A grade of C or better in EPD250. | EPD252 requires an approved field experience. | Acad | LEC 6.0 6.0 6.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| EPD253 | 2023 Fall | Teaching Data Analysis, Probability and Discrete Mathematics Grades K-8 | | Focus on knowledge and skills for data analysis, probability and discrete mathematics concepts for grades K-8. Covers statistics, sampling, systemic listing and counting, and vertex edge graphs. Emphasis on State Academic Math and Common Core Standards. Includes practical application of teaching strategies for elementary students as well as teachers of mathematics. | Prerequisites: A grade of C or better in EPD250. | EPD253 requires an approved field experience. | Acad | LEC 3.0 3.0 3.0 | S |
| EPD254 | 2023 Fall | Mathematics Classroom Assessment | | A thorough examination of techniques and strategies for assessment in the mathematics classroom. Focus on formative and summative assessments. | Prerequisites: A grade of C or better in EPD250, EPD251, EPD252, and EPD253. | | Acad | LEC 3.0 3.0 3.0 | S |
| EPD255 | 2023 Fall | Research-Based Practices, Pedagogy, and Instructional Leadership in Mathematics | | Designed to provide strategies that may be used when assuming leadership roles in mathematics. Focus on examining research-based practices, pedagogy, and techniques of instructional leadership in mathematics. Examination of academic math standards and common core standards. | Prerequisites: A grade of C or better in EPD250, EPD251, EPD252, EPD253, and EPD254. | | Acad | LEC 3.0 3.0 3.0 | S |
| EPD256 | 2013 Fall | Science, Technology, Engineering, and Mathematics (STEM) Education and Technology | | Overview of the current status of Science, Technology, Engineering, and Mathematics (STEM) education and technology in the United States and The Standards for Technological Literacy developed by the International Technology Education Association (ITEA). Emphasis on the impact of technology and its interdependence with the other STEM fields in engineering, science, and mathematics. Topics include: | Prerequisites: A grade of C or better in EPD205. | | Acad | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | technology systems, processes and concepts, energy and power, communication, biotechnology, manufacturing, construction, and transportation technologies. Strategies for practical application in the classroom along with lesson plan development also covered. | | | | | |
| EPD257 | 2013 Fall | Science, Technology, Engineering, and Mathematics (STEM) Education and Science | | Overview of the current status of Science, Technology, Engineering, and Mathematics (STEM) education and science in the United States and the National Science Education standards. Emphasis on techniques associated with the scientific inquiry-based approach to teaching and learning science, models-based science teaching, and STEM science student research. Topics include the scientific 'process' skills, project-based learning, the 5E instructional model, and the interdisciplinary connection of science to other STEM fields. Strategies for practical application in the classroom along with lesson plan development also covered. | Prerequisites: A grade of C or better in EPD205. | | Acad | LEC 3.0 3.0 3.0 | S |
| EPD258 | 2013 Fall | Science, Technology, Engineering, and Mathematics (STEM) Education and Engineering | | Overview of the current status of Science, Technology, Engineering, and Mathematics (STEM) education and engineering in the United States. Emphasis on the underlying principles of engineering education and project-based learning. Topics include a brief history of engineering and its | Prerequisites: A grade of C or better in EPD205. | EPD258 requires three (3) hours of field experience. | Acad | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | disciplines, technical communication skills, problem solving and teamwork, ethics, and engineering systems with modeling and design elements. Strategies for practical application in the classroom along with lesson plan development also covered. | | | | | |
| EPD259 | 2013 Fall | Science, Technology, Engineering, and Mathematics (STEM) Education and Mathematics | | Overview of the current status of Science, Technology, Engineering, and Mathematics (STEM) education and mathematics in the United States and the Mathematics Common Core Standards. Emphasis on techniques associated with the inquiry-based approach to teaching and learning mathematics, project-based learning, and the interdisciplinary connection of mathematics to other STEM fields. Strategies for practical application in the classroom along with lesson plan development also covered. | Prerequisites: A grade of C or better in EPD205. | | Acad | LEC 3.0 3.0 3.0 | S |
| EPD270 | 2018 Fall | Theoretical and Research Foundations of Language and Literacy | | Focus on scientifically-based research as the foundation for classroom reading instruction. Emphasis on the five major areas of reading: phonemic awareness, phonics, fluency, vocabulary, and comprehension. Application of techniques for organizing and implementing explicit, systematic instruction in each of these areas, and methods of regularly assessing children's performance in reading and language arts. | Prerequisites: Must hold a provisional or standard elementary, secondary, or special education teaching certificate. | | Acad | L+L 3.0 3.0 3.0 | T |
| EPD271AA | 2018 Fall | Essential Elements of Elementary Reading and Writing Instruction K-8 | | Overview of the interrelated critical components of reading | Prerequisites: Must hold a provisional or | | | L+L 3.0 3.0 3.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | and writing instruction. Focus on developmental stages, benchmarks, and research-based instructional strategies to effectively teach literacy in the elementary grades. | standard elementary, secondary, or special education teaching certificate. | | | | |
| EPD271AB | 2018 Fall | Essential Elements of Adolescent Reading and Writing Instruction 6-12 | | Focus on the theories, methods, and models of the essential elements needed to develop and improve reading and writing skills of adolescents. | Prerequisites: Must hold a provisional or standard elementary, secondary or special education teaching certificate. | | Acad | L+L 3.0 3.0 3.0 | T |
| EPD272AA | 2018 Fall | Elements of Elementary Content Area Reading and Writing K-8 | | Focus on practical and effective methods and strategies for the teaching of reading and writing in the elementary content area based on research-based principles and theories. | Prerequisites: A grade of C or better in EPD270, EPD271AA and must hold a provisional or standard elementary, secondary, or special education teaching certificate. | | | L+L 3.0 3.0 3.0 | T |
| EPD272AB | 2018 Fall | Elements of Adolescent Content Area Reading and Writing 6-12 | | Focus on practical and effective methods and strategies for the teaching of reading and writing in the adolescent content area based on research-based principles and theories. | Prerequisites: A grade of C or better in EPD270, EPD271AB and must hold a provisional or standard elementary, secondary or special education teaching certificate. | Acad | | L+L 3.0 3.0 3.0 | T |
| EPD274 | 2018 Fall | Reading Assessment | | Focus on Assessment Practices and Systems including administering assessments, data collection and analysis, diagnosing reading difficulties, developing student growth plans, and utilizing data to provide appropriate effective instruction to increase literacy success for all students. | Prerequisites: A grade of C or better in EPD270 and (EPD271AA or EPD271AB) and (EPD272AA or EPD272AB) and must hold a provisional or standard elementary, secondary, or special education teaching certificate. | Acad | Acad | L+L 6.0 6.0 6.0 | T |
| EPD276 | 2018 Fall | The Teacher Leader | | Focus on K-12 teachers' skills as recognized teacher leaders. Includes reading, summarizing, and analyzing current educational research and theory about the teacher | Prerequisites: Must hold a provisional or standard elementary, secondary, or special education teaching certificate. | | Acad | L+L 3.0 3.0 3.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | leader. Examination of the effect of informal and formal roles of the teacher leader in the schools. Also covers discovery of personal philosophies of leadership and plans for enacting leadership within participant's own school sites. | | | | | |
| EPD277AA | 2018 Fall | Reading Field Experience K-8 | | Focus on the practical application of current philosophical theories, methods, and models of assessment and instruction for remediation of reading. | Prerequisites: A grade of C or better in EPD270, EPD271AA, EPD272AA, EPD274, EPD276 and must hold a provisional or standard elementary, secondary, or special education teaching certificate. | | Acad | L+L 3.0 3.0 3.0 | T |
| EPD277AB | 2018 Fall | Reading Field Experience 6-12 | | Focus on the practical application of current philosophical theories, methods, and models of assessment and instruction for remediation of reading. | Prerequisites: A grade of C or better in EPD270, EPD271AB, EPD272AB, EPD274, EPD276 and must hold a provisional or standard elementary, secondary, or special education teaching certificate. | | Acad | L+L 3.0 3.0 3.0 | T |
| EPD279 | 2023 Fall | Reading Practicum K-12 | | Focus on the practical application of current philosophical theories, methods, and models of assessment and instruction for remediation of reading. | Prerequisites: A grade of C or better in EDU270AB and must hold a provisional or standard elementary, secondary or special education teaching certificate. | | Acad | L+L 3.0 4.5 4.5 | T |
| EPD287 | 2013 Fall | Science, Technology, Engineering, and Mathematics Education (STEM) Education Capstone Project | | Organized and tailored around completed coursework in Science, Technology, Engineering, and Mathematics (STEM) education. Structured to provide a capstone experience by providing opportunities for individualized research and study guided by | Prerequisites: A grade of C or better in EPD256, EPD257, EPD258, and EPD259. | | Acad | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | professional expertise. Allows for best opportunities of independent study and individualized learning to maximize teacher development and knowledge in the STEM fields. Final project required. Includes a development plan for immediate classroom use with appropriate grade level lesson plans and activities, teaching strategies, and techniques in a STEM field. | | | | | |
| EPS150 | 2013 Summer I | Introduction to Entrepreneurship | | Overview of entrepreneurship. Includes the entrepreneurial process and the skills required to be successful, including starting, planning, financing, marketing, and managing a business. | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| EPS151 | 2016 Spring | Project-Based Entrepreneurship: Community Solutions | | Practical experience in applying core entrepreneurial skills and knowledge in a real-world context including innovation and creativity exercises. Application of knowledge and skills from earlier coursework to develop and present solutions to real-world situations currently faced by Entrepreneurs, Community-Based Organizations, Civic or Government Organizations, or College Departments. | Prerequisites: A grade of C or better in EPS150 or permission of Instructor. | | Occ | LEC 3.0 3.0 3.0 | S |
| EPS160 | 2013 Summer I | New Venture Creation | | Process of starting a new venture including evaluating specific business opportunities identifying financing alternatives, and defining start-up issues. | Prerequisites: None. | | Occ | LEC 2.0 2.0 2.0 | S |
| EPS161 | 2013 Spring | New Venture Law and Finance | | Introduction to the principles of legalization and capitalization of a new business venture. Includes the | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | processes required to organize, register, finance, launch and protect a business. | | | | | |
| EPS162 | 2017 Spring | Introduction to Social Entrepreneurship | | Introduction to the history, theory, and emerging activities of social entrepreneurship. Includes management skills for social entrepreneurial organizations, scaling of social impact, and social performance measurement. Emphasis on social capital, microfinance, and evaluation of social entrepreneurial opportunities. | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| EPS165 | 2013 Spring | New Venture Feasibility Analysis | | Introduction to the industry's market and competitive structure. Includes the technical skills to develop a competitive strategy for entry into the business segment. Covers the market potential evaluation, niche identification, analysis of competition, and development of customer profiles. Also involves development of a marketing strategy and sales projections for new business ventures. | Prerequisites: None. | | Occ | LEC 2.0 2.0 2.0 | S |
| EPS180 | 2014 Summer | Technology Business Planning | | Fundamentals of identifying new technologies and innovations for profitable commercial feasibility. Determination of capabilities, resources, and interests of the entrepreneur. Evaluation and selection of technology opportunities. Creation of business concept and plan. Customer development and business models. Finances, venture capital and accounting. Marketing and sales. Legal formation and intellectual property. | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Operations and resource management. Growth, harvest and success. | | | | | |
| EPS195 | 2013 Summer I | Business Start-Up and Planning | | Development of a feasibility approach to strategic decision making concerning new venture start-up. Includes development of a business feasibility study and a preliminary business plan. | Prerequisites: None. | | Occ | LEC 2.0 2.0 2.0 | S |
| EQS105 | 2019 Fall | Principles of Equine Science | | Breeds, colors and markings; horse selection; basic conformation; form to function; structures of the hoof; footfall sequences; vision, managed health program; nutrition principles and management practices. | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| EQS120 | 2021 Fall | Equine Anatomy and Physiology | | Study of structure and function of the equine. Includes cell structure, anatomy and physiology of major systems with emphasis on skeletal, muscular, and digestive systems. Incorporates detailed discussion and identification of various anatomical parts. | Prerequisites: A grade of C or better in EQS105 or permission of Department or Division. | | | L+L 4.0 5.0 5.0 | T |
| EQS130 | 2019 Fall | Equine Business and Law | | Practices and records used in the equine business. Includes record keeping systems and basic accounting principles; taxes; personnel management practices; computer programs for record keeping and operations management. Addresses legal aspects and laws unique to equine businesses. | Prerequisites: None. | Occ | Occ | LEC 3.0 3.0 3.0 | S |
| EQS140 | 2011 Fall | Equine Behavior | | Equine behavior modification using the horse's natural behavior patterns. Emphasis on intelligence level, vision, emotions, hearing, and attention span of the horse. | Prerequisites: A grade of C or better in EQS105 or permission of Department or Division. | | | LEC 3.0 3.0 3.0 | S |
| EQS145 | 2018 Fall | Basic Horsemanship | | Rudimentary knowledge concerning horse handling | Prerequisites: None. | | Occ | L+L 3.0 6.0 6.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | safety, basic riding equipment, grooming techniques, saddling, bridling, mounting, dismounting, and basic control of the horse at the walk and trot. English or western equipment used. Emphasis on position of rider as it relates to basic control of the horse | | | | | |
| EQS160 | 2018 Fall | English Horsemanship I | | Basic ground work and safety procedures; control of the horse at the walk, trot, and canter; rider position and use of fundamental aids | Prerequisites: None. | | Occ | L+L 3.0 3.0 3.0 | T |
| EQS162 | 2019 Fall | Equine and Stable Management I | | Focus on daily stable operations in the care and management of horses. Practical experience in basic horse husbandry, horsemanship, and stable management. Development of ground handling skills and use of lunge line and round penning techniques. Topics include feeding, watering, stable sanitation, grooming, bathing, vaccines, parasite control, safety, horse behavior, health, wounds and their treatments, and record keeping. | Prerequisites: None. | | Occ | L+L 2.0 4.0 4.0 | T |
| EQS162VT | 2019 Summer | Equine Management for the Veterinary Technician | | A hands-on introduction to daily stable operations in the care and management of horses. Practical experience with various assigned horses in basic horse husbandry, horsemanship, and stable management. Development of ground handling skills during various activities related to the care of horses. Effective use of lunge line and round penning techniques. Topics include feeding, watering, stable sanitation, grooming, | Prerequisites: Veterinary Technician student currently enrolled in Mesa Community College (MCC) Veterinary Technology Program or student currently enrolled in Scottsdale Community College (SCC) Equine Science Program on track with Mesa Community College (MCC) Veterinary Technology | Occ | | L+L 2.0 4.0 4.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | bathing, lameness exams, vaccines, blood draws, parasite control, safety, horse behavior, health, wounds and their treatments, veterinary forms and recordkeeping. | Program upon graduation from SCC. | | | | |
| EQS165 | 2018 Fall | Western Horsemanship I | | Basic ground work and safety procedures; control of the horse at the walk, jog, and lope; rider position and use of fundamental aids | Prerequisites: None. | | Occ | L+L 3.0 3.0 3.0 | T |
| EQS175 | 2019 Fall | Introduction to Equine Therapies | | Designed to acquaint students with equine therapies for major muscle groups, the skeletal system and the hoof of the horse. The relationship that exists between the listed systems, equine locomotion and lameness problems will be discussed. Discussion, demonstration, and/or practical hands-on opportunities of equine therapy techniques will be focus of the class. | Prerequisites: None. | EQS175 is not designed to train or certify individuals to massage horses on a professional basis. | Occ | L+L 3.0 6.0 6.0 | T |
| EQS180 | 2018 Fall | English Horsemanship II | | Increase control, balance, form and finesse in the balanced seat style of English riding. Emphasis on developing the rider's ability to apply precise, prompt, smooth aids, and attain harmony with the horse through use of "body language." | Prerequisites: A grade of C or better in EQS160 or permission of Department or Division. | | | L+L 3.0 3.0 3.0 | T |
| EQS185 | 2018 Fall | Western Horsemanship II | | Refinement of basic riding skills; weight, leg, and rein aids; gathering and checking; two-track; trail obstacles; simple change of lead; elements of a Western riding pattern. | Prerequisites: A grade of C or better in EQS165 or permission of Department or Division. | Occ | | L+L 3.0 3.0 3.0 | T |
| EQS200 | 2012 Spring | Principles of Equine Nutrition | | Basic principles of equine nutrition and digestion. Proper selection, evaluation and utilization of feeds as well as the feeding and care of the | Prerequisites: A grade of C or better in (EQS105 and EQS120) or permission of Department or Division. | | | LEC 3.0 3.0 3.0 | S |



Occ

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | equine in various stages of production, growth and performance. Emphasis on nutrient content and ration evaluation, general health and feed management. Identifies specific nutritional needs of each class of equine and formulates feeding programs based on these specific needs. | | | | | |
| EQS205 | 1988 Fall | Equine Genetics, Selection, Development | | Introduction to genetics as applied to selection of breeding animals. Emphasis on phenotypic selection and foal development | Prerequisites: A grade of C or better in EQS120 or permission of Department or Division. | | | LEC 3.0 3.0 3.0 | S |
| EQS215 | 2004 Fall | Feeding Programs for Production and Performance | | Explores the feeding and care of the equine in various stages of production, growth and performance. Identifies specific nutritional needs of each class of equine and formulates feeding programs based on these specific needs | Prerequisites: A grade of C or better in EQS200 or permission of Department or Division. | | | LEC 3.0 3.0 3.0 | S |
| EQS220 | 2004 Fall | Equine Reproduction | | Reproductive anatomy and physiology; care and management of the breeding stallion; breeding procedures and artificial insemination. Care of pregnant mare; foaling procedures | Prerequisites: A grade of C or better in EQS105 or EQS120 or permission of Department or Division. | Occ<br><br>Occ | | LEC 3.0 3.0 3.0 | S |
| EQS225 | 1995 Spring | Equine Health and Disease Management | | Aspects of equine health and disease prevention. Emphasis on preventive maintenance. Preventive medicine and necessary managerial practices needed to keep the equine athlete, broodmare, or family horse in good health | Prerequisites: A grade of C or better in (EQS105 and EQS120) or permission of Department or Division. | Occ | | LEC 3.0 3.0 3.0 | S |
| EQS235 | 2018 Fall | English Horsemanship and Training | | Riding skills and training techniques for the English horse. Includes review of basic horsemanship skills, lateral bend and vertical flexion, halt, rein back, leg yield, counter canter, simple | Prerequisites: None. | Occ | Occ | L+L 3.0 3.0 3.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | and flying change of leads, mental preparation for shows and the judging criteria for various performances | | | | | |
| EQS245 | 2018 Fall | Western Horsemanship and Training | | Riding skills and training techniques for the western horse. Includes review of basic horsemanship skills, stopping, backing, two track, simple and flying lead changes, turns on the forehand and hindquarters, rating speed collection, western riding patterns and horse show preparation | Prerequisites: None. | | Occ | L+L 3.0 3.0 3.0 | T |
| EQS250 | 2021 Fall | Equine Evaluation | | Fundamental relationship between good conformation and ability of the horse to remain sound and useful. Includes basic skeletal structure, common blemishes and evidence of unsoundness. Breed conformation standards and performance events for the more common breeds. | Prerequisites: A grade of C or better in (EQS105 and EQS120) or permission of Department or Division. | | | L+L 3.0 4.0 4.0 | T |
| EQS264 | 2019 Fall | Equine and Stable Management II | | Advanced practical experience in horse and stable management. Practical and supervisory experience in daily stable operations that increase skill and knowledge level in the care and management of horses. Topics include nutrition, diseases and their prevention, environmental issues parasite, pests and rodent control, safety, horse handling, wounds and their treatments, injury and treatments, inventory control, record keeping, and industry-standard operating procedures. | Prerequisites: A grade of C or better in (EQS162 or EQS162VT) or permission of Department or Division. | Occ<br><br>Occ | | L+L 4.0 4.0 4.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| EQS270 | 2018 Fall | Teaching Techniques in Horsemanship | | Theory and principles in teaching horsemanship and developing a public lesson program. Emphasis on developing a lesson plan, communication and public relations skills; horse and rider problem analysis; and methods of group control | Prerequisites: A grade of C or better in EQS105 and EQS145 and (EQS160 or EQS165) or permission of Department or Division. | | | L+L 3.0 4.0 4.0 | T |
| EQS275 | 2021 Fall | Equine Lameness | | A continuing study of equine skeletal anatomy with emphasis on the normal function of front and hind legs and the hoof. Covers methods of evaluating various deviations that present as lameness in horses; how conformation, gait, and lameness relate to performance, physical and behavior issues; the protocol of equine gait assessments on actual horses; and how to diagram the footfalls of the horse. Topics include the body's response to injury, forms of therapy, types of conditioning, and rehabilitative techniques for returning horses to usefulness and performance. | Prerequisites: A grade of C or better in (EQS105, EQS120, and EQS250) or permission of Department or Division. | Occ<br><br>Occ | | L+L 4.0 4.0 4.0 | T |
| EQS280 | 2019 Fall | Equine Science Internship | | Equine industry work experience at faculty approved site. Focus of internship is immersion in an area of interest in or related to equine industry. | Prerequisites: A grade of C or better in (EQS120 and (EQS162 or EQS162VT)), or permission of Department or Division. | EQS280 requires a minimum of 250 contact hours. Students can choose to participate in EQS285 Equine Science Practicum or EQS280. | Occ | LAB 3.0 15.0 0.0 | C |
| EQS283 | 2018 Fall | Special Event Internship | | Hands-on career track experience before, during and after a major equine event. Emphasis on event coordination and management issues. | Prerequisites: A grade of C or better in EQS105 or permission of Department or Division. | EQS283 requires a minimum of 30 contact hours. EQS283 may be repeated for a total of four (4) credit hours with permission of Department or Division. | Occ | LAB 1.0 2.0 0.0 | C |
| EQS284 | 2003 Spring | Teaching Techniques Internship | | Short term in-depth participation assisting with the organization and methods of | Prerequisites: A grade of C or better in EQS270 plus an | EQS284 may be repeated for a total of four (4) credits with department permission. | Occ | LAB 1.0 5.0 0.0 | C |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | instruction for an Equine Science horsemanship class. | assessment of horsemanship skills. | | | | |
| EQS285 | 2019 Fall | Equine Science Practicum | | Equine industry work experience at faculty approved site. | Prerequisites: EQS120 and (EQS162 or EQS162VT). | EQS285 requires a minimum of 160 contact hours and may be repeated for a total of four (4) credit hours. EQS280 may be taken as an option. | Occ | LAB 2.0 10.0 0.0 | C |
| EQS294 | 2018 Fall | Special Topics in Equine Science | | Exploration of special topics related to Equine Science and Equine Management with an emphasis on current issues. | Prerequisites: None. | EQS294 may be repeated for credit. | Occ | L+L 3.0 4.0 4.0 | T |
| EQS294AA | 2018 Fall | Special Topics in Equine Science | | Exploration of special topics related to Equine Science and Equine Management with an emphasis on current issues. | Prerequisites: None. | EQS294AA may be repeated for credit. | Occ | LEC 2.0 2.0 2.0 | S |
| EQS294AB | 2018 Fall | Special Topics in Equine Science | | Exploration of special topics related to Equine Science and Equine Management with an emphasis on current issues. | Prerequisites: None. | EQS294AB may be repeated for credit. | Occ | LEC 1.0 1.0 1.0 | S |
| EQS294AC | 2018 Fall | Special Topics in Equine Science | | Exploration of special topics related to Equine Science and Equine Management with an emphasis on current issues. | Prerequisites: None. | EQS294AC may be repeated for credit. | Occ | LEC 0.5 0.5 0.5 | S |
| EQS295 | 2024 Spring | Equine Therapies II | | Designed to train students with advanced equine therapy methods to relieve common conditions and pathologies for the musculoskeletal system. Identifying biomechanics, variations and abnormalities, muscle tension, joint stress, common injuries and lameness. Identifying and assessing the relationship between conformational flaws, range of motion and lameness as they align with the performance of specific disciplines. Discussion and demonstration with practical hands-on training of advanced equine therapy methods. Designed to train students to work in the field as an Equine Massage Practitioner with the ability to evaluate common | Prerequisites: A grade of B or better in EQS175 or permission of Department or Division. Students must pass an entrance test before permission to enroll will be given. | Occ | | L+L 3.0 6.0 6.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | conditions, and carry out a treatment plan, that will relieve muscle tension and pain, increasing circulation, flexibility and range of motion in the horse. | | | | | |
| EQS296WA | 2002 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor. | | Occ | LAB 1.0 5.0 0.0 | Z |
| EQS296WB | 2002 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor. | | Occ | LAB 2.0 10.0 0.0 | Z |
| EQS296WC | 2002 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 | | | LAB 3.0 15.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | related to the career objectives of the students. COMMON COMPETENCY COURSE | grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor. | | | | |
| EQS296WD | 2002 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor. | | Occ | LAB 4.0 20.0 0.0 | Z |
| EQS298AA | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student | Prerequisites: Permission of Program Director or Instructor. | | Occ | LAB 1.0 1.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | development. COMMON COMPETENCY COURSE | | | | | |
| EQS298AB | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | Prerequisites: Permission of Program Director or Instructor. | | Occ | LAB 2.0 2.0 0.0 | Z |
| EQS298AC | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | Prerequisites: Permission of Program Director or Instructor. | | Occ | LAB 3.0 3.0 0.0 | Z |
| ESL002 | 2017 Fall | Basic English as a Second Language II | | Listening, speaking, reading, and writing in English at a high beginning level. Focus on survival skills related to life in the United States. Continuing development of grammatical patterns. | Prerequisites: A grade of C or better in ESL001 or permission of Instructor. | ESL002 may be repeated for a total of twelve (12) credit hours. | Acad | LEC 6.0 6.0 6.0 | S |
| ESL010 | 2002 Fall | English as a Second Language I: Grammar | | First level of English as a Second Language (ESL). Emphasis on basic conversational skills, pronunciation, vocabulary | Prerequisites: Appropriate ESL placement test score. | ESL010 may be repeated for a total of six (6) credit hours.Credit (P) or no credit (Z). Standard grading available | Acad | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | building and grammar. Some reading and sentence level writing. | | according to procedures outlined in catalog. | | | |
| ESL011 | 2003 Fall | English as a Second Language I: Listening and Speaking | | Emphasis on listening and speaking skills involving survival skills. Asking and answering questions related to work, shopping, and personal safety. | Prerequisites: Appropriate ESL placement test score or a grade of C or better in ESL002. | ESL011 may be repeated for a total of six (6) credit hours. | Acad | LEC 3.0 3.0 3.0 | S |
| ESL012 | 2001 Fall | ESL I-Writing with Oral Practice | | Emphasis on basic conventions of writing in English. Includes introduction to the alphabet, capitalization, punctuation, and simple sentence structure. | Prerequisites: Appropriate ESL placement test score or permission of Instructor. | ESL012 may be repeated for a total of six (6) credit hours. | Acad | LEC 3.0 3.0 3.0 | S |
| ESL013 | 2013 Spring | Vocabulary for ESL I | | Emphasis on the acquisition of basic English vocabulary including identifying and pronouncing words related to people, medical/dental care, occupations and other activities. | Prerequisites: Appropriate ESL placement test score or permission of Instructor. | ESL013 may be repeated for a total of two (2) credit hours. | Acad | L+L 1.0 1.0 0.0 | Z |
| ESL016 | 2023 Fall | Reading English as a Second Language I | | Designed for students who are learning English as a second language. Skills needed to become proficient readers in English. Sound symbol relationships of the English alphabet. Essential vocabulary for daily communication both in isolation and context. Development of reading comprehension skills. | Prerequisites: Appropriate ESL placement test score. | | | LEC 3.0 3.0 3.0 | S |
| ESL020 | 2017 Fall | English as a Second Language II: Grammar | | Second level of English as a Second Language (ESL). Continued emphasis on conversational skills, pronunciation, vocabulary building and grammar with some reading and sentence level writing. | Prerequisites: Appropriate ESL placement test score or a grade of P or C or better in ESL010. | ESL020 may be repeated for a total of six (6) credit hours. Credit (P) or no credit (Z). Standard grading available according to procedures outlined in catalog. | Acad | LEC 3.0 3.0 3.0 | S |
| ESL021 | 2003 Fall | English as a Second Language II: Listening and Speaking | | Emphasis on listening and speaking skills involving social exchange. Asking and answering questions, using tag questions. Practice with | Prerequisites: Appropriate ESL placement test score or a grade of C or better in | ESL021 may be repeated for a total of six (6) credit hours. | Acad | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | question and answer patterns. Polite questions and responses. | ESL010 or ESL011 or ESL012 or RDG010. | | | | |
| ESL022 | 2006 Spring | ESL II-Writing with Oral Practice | | Emphasis on basic writing skills, accompanied by recitation of short writings. Sentence patterns and introduction of paragraph writing. | Prerequisites: Appropriate ESL course placement score or a grade of C or better in ESL012 or permission of Instructor. | ESL022 may be repeated for a total of six (6) credit hours. | Acad | LEC 3.0 3.0 3.0 | S |
| ESL023 | 2013 Spring | Vocabulary for ESL II | | Emphasis on the acquisition of basic English vocabulary including identifying and pronouncing words related to people, medical/dental care, occupations and other activities. | Prerequisites: Appropriate ESL placement test score or permission of Instructor. | ESL023 may be repeated for a total of two (2) credit hours. | Acad | L+L 1.0 1.0 0.0 | Z |
| ESL026 | 2023 Fall | Reading English as a Second Language II | | Designed for students who are learning English as a second language. Continued development of vocabulary and reading comprehension skills. | Prerequisites: Appropriate ESL placement test score or a grade of C or better in ESL016 or permission of Instructor. | | Acad | LEC 3.0 3.0 3.0 | S |
| ESL030 | 2017 Fall | English as a Second Language III: Grammar | | Third level of English as a Second Language (ESL). Emphasis on sentence structure and paragraph building. Extensive grammar study and writing practice. | Prerequisites: Appropriate ESL placement test score or a grade of P or C or better in ESL020. | ESL030 may be repeated for a total of six (6) credit hours. Credit (P) or no credit (Z). Standard grading available according to procedures outlined in catalog. | Acad | LEC 3.0 3.0 3.0 | S |
| ESL031 | 2013 Fall | English as a Second Language III: Listening and Speaking | | Emphasis on listening and speaking skills related primarily to the academic environment. Asking questions, working in small groups, using college resources, informal oral presentation. | Prerequisites: Appropriate ESL placement test score, or a grade of C or better in ESL020, or ESL021, or ESL022, or ESL/RDG026. | ESL031 may be repeated for a total of six (6) credit hours. | Acad | LEC 3.0 3.0 3.0 | S |
| ESL032 | 2006 Spring | ESL III-Writing with Oral Practice | | Emphasis on complex sentence patterns in writing and speech. Introduction to the prewriting and writing process in a college setting. | Prerequisites: Appropriate ESL course placement score or a grade of C or better in ESL022 or permission of Instructor. | ESL032 may be repeated for a total of six (6) credit hours. | Acad | LEC 3.0 3.0 3.0 | S |
| ESL033 | 2013 Spring | Vocabulary for ESL III | | Emphasis on the acquisition of basic English vocabulary including identifying and pronouncing words related to | Prerequisites: Appropriate ESL placement test score or permission of Instructor. | ESL033 may be repeated for a total of two (2) credit hours. | Acad | L+L 1.0 1.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | people, medical/dental care, occupations and other activities. | | | | | |
| ESL036 | 2023 Fall | Reading English as a Second Language III | | Designed for students who are learning English as a second language. Instruction for more advanced vocabulary and reading comprehension skills. | Prerequisites: Appropriate ESL placement test score or a grade of C or better in ESL026 or permission of Instructor. | | Acad | LEC 3.0 3.0 3.0 | S |
| ESL040 | 2017 Fall | English as a Second Language IV: Grammar | | Fourth-level of English as a Second Language (ESL). Continued emphasis on sentence structure and paragraph building. Extensive grammar study and writing practice. | Prerequisites: Appropriate ESL placement test score or a grade of P or C or better in ESL030. | ESL040 may be repeated for a total of six (6) credit hours. Credit (P) or no credit (Z). Standard grading available according to procedures outlined in catalog. | Acad | LEC 3.0 3.0 3.0 | S |
| ESL041 | 2013 Fall | English as a Second Language IV: Listening and Speaking | | Emphasis on academic skills. Listening to lectures, notetaking, peer interaction, accessing and using media resources, formal oral presentations. | Prerequisites: Appropriate ESL placement test score, or a grade of C or better in ESL030, or ESL031, or ESL032, or ESL/RDG036. | ESL041 may be repeated for a total of six (6) credit hours. | Acad | LEC 3.0 3.0 3.0 | S |
| ESL042 | 2006 Spring | ESL IV-Writing with Oral Practice | | Emphasis on paragraph writing and oral recitation of complex sentences and paragraphs. Introduction to the prewriting and writing process for short essays. | Prerequisites: Appropriate ESL course placement score or a grade of C or better in ESL032 or permission of Instructor. | ESL042 may be repeated for a total of six (6) credit hours. | Acad | LEC 3.0 3.0 3.0 | S |
| ESL046 | 2023 Fall | Reading English as a Second Language IV | | Developed for students of English as a second language. Development of advanced vocabulary, comprehension skills, and culture awareness. | Prerequisites: Appropriate ESL placement test score or a grade of C or better in ESL036 or permission of Instructor. | | Acad | LEC 3.0 3.0 3.0 | S |
| ESL049 | 2017 Fall | General Vocational English as a Second Language | | General English speaking, listening, reading, and writing skills needed for use at work. | Prerequisites: Appropriate ESL placement test score, or a grade of "C" or better in ESL010, or permission of Instructor. | | Acad | LEC 3.0 3.0 3.0 | S |
| ESL050 | 2006 Spring | Review Grammar For ESL | | Review of grammatical concepts for ESL (English as a Second Language) students who have some previous experience in reading and | Prerequisites: Appropriate ESL course placement score or a grade of C or better in | ESL050 may be repeated for a total of six (6) credit hours. | Acad | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | writing English. Appropriate for students who want to practice sentence skills in English. | ESL040 or permission of Instructor. | | | | |
| ESL050AA | 2017 Fall | Basic Review Grammar for ESL | | Review of the use of English verbs and word placement in sentences for ESL (English as a Second Language) students who have some previous experience in reading and writing English. Appropriate for students who want to practice sentence skills in English. | Prerequisites: Appropriate ESL placement test score, or a grade of C or better in ESL010 or permission of Instructor. | ESL050AA may be repeated for a total of two (2) credit hours. | Acad | L+L 1.0 1.0 0.0 | Z |
| ESL050AB | 2017 Fall | Intermediate Review Grammar for ESL | | Review of auxiliary verbs and the comparative and superlative for ESL (English as a Second Language) students who have some previous experience in reading and writing English. Appropriate for students who want to practice sentence skills in English. | Prerequisites: Appropriate ESL placement test score, or a grade of "C" or better in ESL020, or permission of Instructor. | ESL050AB may be repeated for a total of two (2) credit hours. | Acad | L+L 1.0 1.0 0.0 | Z |
| ESL050AC | 2017 Fall | Advanced Review Grammar for ESL | | Review of verbals and gerunds for ESL (English as a Second Language) students who have some previous experience in reading and writing English. Appropriate for students who want to practice sentence skills in English. | Prerequisites: Appropriate ESL placement test score, or a grade of "C" or better in ESL030, or permission of Instructor. | ESL050AC may be repeated for a total of two (2) credit hours. | Acad | L+L 1.0 1.0 0.0 | Z |
| ESL051 | 2013 Fall | Pronunciation Improvement for ESL Speakers | | Individualized pronunciation practice and drills for English as a second language (ESL) speakers. | Prerequisites: Appropriate ESL course placement score, or a grade of C or better in (ESL020, or ESL021, or ESL022, or ESL/RDG026), or permission of Instructor. | ESL051 may be repeated for a total of six (6) credit hours. | Acad | LEC 3.0 3.0 3.0 | S |
| ESL054 | 2017 Fall | American Culture | | Reading and writing about American culture including history, institutions and sports, and entertainment. | Prerequisites: Appropriate ESL placement test score or a grade of C or better in ESL040 or | ESL054 may be repeated for a total of six (6) credit hours. | Acad | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | ESL/RDG046 or permission of Instructor. | | | | |
| ESL054AA | 2017 Fall | American Culture: History | | Reading and writing about American history. | Prerequisites: Appropriate ESL placement test score or a grade of C or better in ESL040 or ESL/RDG046 or permission of Instructor. | ESL054AA may be repeated for a total of two (2) credit hours. | Acad | L+L 1.0 1.0 0.0 | Z |
| ESL054AB | 2017 Fall | American Culture: Institutions and Customs | | Reading and writing about American cultural institutions and customs. | Prerequisites: Appropriate ESL placement test score or a grade of C or better in ESL040 or ESL/RDG046 or permission of Instructor. | ESL054AB may be repeated for a total of two (2) credit hours. | Acad | L+L 1.0 1.0 0.0 | Z |
| ESL054AC | 2017 Fall | American Culture: Sports and Entertainment | | Reading and writing about American sports and entertainment. | Prerequisites: Appropriate ESL placement test score or a grade of C or better in ESL040 or ESL/RDG046 or permission of Instructor. | ESL054AC may be repeated for a total of two (2) credit hours. | Acad | L+L 1.0 1.0 0.0 | Z |
| ESL061 | 2002 Fall | Informal Conversational and Written English for Non-native Speakers | | Practice speaking and writing English in informal settings. Emphasis on friendly conversational techniques and effective use of the computer and the Internet to communicate in a friendly, relaxed manner. | Prerequisites: Appropriate ESL placement test score or a grade of P or C or better in ESL020 or ESL021 or ESL022 or RDG020. | | | LEC 3.0 3.0 3.0 | S |
| ESL071 | 2006 Spring | Advanced Pronunciation and Oral Reading for ESL | | Pronunciation practice and review, spelling of English sounds, and oral reading for stress and intonation patterns in English. | Prerequisites: A grade of C or better in ESL051 or permission of Instructor. | ESL071 may be repeated for a total of six (6) credit hours. | Acad | LEC 3.0 3.0 3.0 | S |
| ESL077 | 2016 Spring | Preparatory Academic Writing I for ESL | | Emphasizes preparation for college level composition and related reading tasks with a focus on communicating through complete, grammatically correct writing, organized to communicate a central idea. | Prerequisites: Appropriate writing placement test score or permission of Department or Division. | Acad | | LEC 3.0 3.0 3.0 | S |
| ESL087 | 2016 Spring | Preparatory Academic Writing II for ESL | | Emphasizes preparation for college-level composition and | Prerequisites: Appropriate writing | | Acad | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | related reading tasks with a focus on critical writing, reading, and thinking skills and processes. | placement test score or a grade of C or better in ESL077 or ENG071 or permission of Department or Division. | | | | |
| ESL097 | 2016 Spring | Preparatory Academic Writing III for ESL | | Emphasizes preparation for first year composition with a focus on critical writing, reading, and thinking skills and processes at an increased level of academic complexity. | Prerequisites: Appropriate writing placement score, or a grade of C or better in ESL087 or ENG081, or permission of Department or Division. | | | LEC 3.0 3.0 3.0 | S |
| ESL101 | 2023 Fall | English as a Second Language I | | Beginning language skills for English language learners to develop reading, writing, listening, and speaking skills. Emphasizes integrated reading and writing skills. | Prerequisites: Appropriate ESL placement score or permission of Instructor. | ESL101 content aligns with common European Framework of Reference for languages (CEFR) A2 guidelines. | Acad | LEC 6.0 6.0 6.0 | S |
| ESL101AA | 2023 Fall | English as a Second Language IA | | Beginning language skills for English language learners to develop reading, writing, listening, and speaking skills. Emphasizes integrated reading and writing skills. | Prerequisites: Appropriate ESL placement score or permission of Instructor. | ESL101AA content aligns with common European Framework of Reference for languages (CEFR) A2 guidelines. | Acad | LEC 3.0 3.0 3.0 | S |
| ESL101AB | 2023 Fall | English as a Second Language IB | | Beginning language skills for English language learners to develop reading, writing, listening, and speaking skills. Emphasizes integrated reading and writing skills. | Prerequisites: A grade of C or better in ESL101AA, or appropriate ESL placement score, or permission of Instructor. | ESL101AB content aligns with common European Framework of Reference for languages (CEFR) A2 guidelines. | Acad | LEC 3.0 3.0 3.0 | S |
| ESL102 | 2023 Fall | English as a Second Language II | | Low-intermediate language skills for English language learners to develop reading, writing, listening, and speaking skills. Emphasizes integrated reading and writing skills. | Prerequisites: A grade of C or better in ESL101, or (ESL101AA and ESL101AB), or appropriate placement score, or permission of Instructor. | | Acad | LEC 6.0 6.0 6.0 | S |
| ESL102AA | 2023 Fall | English as a Second Language IIA | | Language skills for English language learners to develop reading, writing, listening, and speaking skills. Emphasizes integrated reading and writing skills. | Prerequisites: A grade of C or better in ESL101, or (ESL101AA and ESL101AB), or appropriate placement score, or permission of Instructor. | | Acad | LEC 3.0 3.0 3.0 | S |
| ESL102AB | 2023 Fall | English as a Second Language IIB | | Language skills for English language learners to develop | Prerequisites: A grade of C or better in | ESL102AB content aligns with common European Framework | Acad | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | reading, writing, listening, and speaking skills. Emphasizes integrated reading and writing skills. | ESL102AA, or appropriate placement score, or permission of Instructor. | of Reference for Languages (CEFR) A2 guidelines. | | | |
| ESL110 | 2023 Fall | Beginning to Low-Intermediate English Listening and Speaking | | Beginning to low-intermediate English language listening and speaking skills on familiar topics. Focus on the development of an appropriate degree of accuracy, fluency, and spontaneity to allow for interactions appropriate to this level. | Prerequisites: Appropriate ESL placement score or permission of Instructor. | ESL110 content aligns with common European Framework of Reference for languages (CEFR) A1 and A2 guidelines. | Acad | LEC 3.0 3.0 3.0 | S |
| ESL140 | 2023 Fall | Beginning to Low-Intermediate English Grammar | | Beginning to low-intermediate grammar for English language learners. Emphasis on use of language in familiar contexts. | Prerequisites: Appropriate ESL placement score or permission of Instructor. | ESL140 content aligns with common European Framework of Reference for languages (CEFR) A1 and A2 guidelines. | Acad | LEC 3.0 3.0 3.0 | S |
| ESL201 | 2023 Fall | English as a Second Language III | | High-intermediate language instruction for English language learners to build proficiency in academic and professional listening, speaking, reading, and writing. Focuses on integrated reading and writing skills. | Prerequisites: A grade of C or better in ESL102, or (ESL102AA and ESL102AB), or appropriate ESL placement score, or permission of Instructor. | | Acad | LEC 6.0 6.0 6.0 | S |
| ESL201AA | 2023 Fall | English as a Second Language IIIA | | High-intermediate language instruction for English language learners to build proficiency in academic and professional listening, speaking, reading, and writing. Focuses on integrated reading and writing skills. | Prerequisites: A grade of C or better in ESL102, or (ESL102AA and ESL102AB), or appropriate ESL placement score, or permission of Instructor. | ESL201AA content aligns with common European Framework of Reference for languages (CEFR) B1 guidelines. | Acad | LEC 3.0 3.0 3.0 | S |
| ESL201AB | 2023 Fall | English as a Second Language IIIB | | High-intermediate language instruction for English language learners to build proficiency in academic and professional listening, speaking, reading, and writing. Focuses on integrated reading and writing skills. | Prerequisites: A grade of C or better in ESL201AA, or appropriate ESL placement score, or permission of Instructor. | ESL201AB content aligns with common European Framework of Reference for languages (CEFR) B1 guidelines. | Acad | LEC 3.0 3.0 3.0 | S |
| ESL202 | 2023 Fall | English as a Second Language IV | | Advanced language instruction for English language learners to further develop proficiency in academic and professional | Prerequisites: A grade of C or better in ESL201, or (ESL201AA and ESL201AB), or appropriate ESL | ESL202 content aligns with common European Framework of Reference for languages (CEFR) B1 guidelines. | Acad | LEC 6.0 6.0 6.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | listening, speaking, reading, and writing with an introduction to information literacy. Emphasizes integrated reading and writing skills for use in research and presentation. | placement score, or permission of Instructor. | | | | |
| ESL202AA | 2023 Fall | English as a Second Language IVA | | Advanced language instruction for English language learners to further develop proficiency in academic and professional listening, speaking, reading, and writing with an introduction to information literacy. Emphasizes integrated reading and writing skills for use in research and presentation. | Prerequisites: A grade of C or better in ESL201, or (ESL201AA and ESL201AB), or appropriate ESL placement score, or permission of Instructor. | ESL202AA content aligns with common European Framework of Reference for languages (CEFR) B1 guidelines. | Acad | LEC 3.0 3.0 3.0 | S |
| ESL202AB | 2023 Fall | English as a Second Language IVB | | High-intermediate language instruction for English language learners to build proficiency in academic and professional listening, speaking, reading, and writing. Focuses on integrated reading and writing skills. | Prerequisites: A grade of C or better in ESL202AA, or appropriate ESL placement score, or permission of Instructor. | ESL202AB content aligns with common European Framework of Reference for languages (CEFR) B1 guidelines. | Acad | LEC 3.0 3.0 3.0 | S |
| ESL210 | 2023 Fall | High-Intermediate to Advanced English Listening and Speaking | | High-Intermediate to advanced English language listening and speaking skills on academic, professional, and socio-cultural topics. Focus on the development of accuracy, fluency, and spontaneity to allow for constructive interactions. | Prerequisites: Appropriate ESL placement score or permission of Instructor. | ESL210 content aligns with common European Framework of Reference for languages (CEFR) B1 and B2 guidelines. | Acad | LEC 3.0 3.0 3.0 | S |
| ESL240 | 2023 Fall | High-Intermediate to Advanced English Grammar | | High-intermediate to advanced grammar for English language learners. Emphasis on use of language for different situations. | Prerequisites: Appropriate ESL placement score or permission of Instructor. | ESL240 content aligns with common European Framework of Reference for languages (CEFR) B1 and B2 guidelines. | Acad | LEC 3.0 3.0 3.0 | S |
| ESL298AA | 2023 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and | Prerequisites: Permission of Program Director or Instructor. | | Acad | LAB 1.0 1.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. | | | | | |
| ESL298AB | 2023 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. | Prerequisites: Permission of Program Director or Instructor. | Acad | | LAB 2.0 2.0 0.0 | Z |
| ESL298AC | 2023 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. | Prerequisites: Permission of Program Director or Instructor. | Acad | | LAB 3.0 3.0 0.0 | Z |
| ESP180 | 2022 Fall | College and Career Readiness | | This college and career readiness course is designed to prepare students for the rigors and expectations of post-secondary education. Students will learn essential | Prerequisites: Admission into the Emergency Medical Technology program. Successful completion of RDG100 or higher or | | | 40 | |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | professional skills required for success in the workplace, as well as learn vital academic skills required for success in the classroom. Students will be introduced to educational pathways for career exploration, learn how to write a professional resume, cover letter, conduct mock interviews, and gain a better understanding of post-secondary funding options. | appropriate reading placement into CRE101. | | | | |
| EST102 | 2021 Fall 1 | Aesthetics Essentials | | As students begin their training in Aesthetics, they will begin to develop and demonstrate proficiencies in effective client communication, interpersonal skills, and will learn how to deliver an effective skin care facial treatment and client pre and post consultations. Topics will also include sanitation, Arizona laws, client care, and facial care. | Prerequisites: Admission to the Aesthetics program, or Program Manager's approval. | | | 200 | |
| EST110 | 2021 Fall 1 | Advanced Aesthetics | | Theory and application of advanced skin care modalities, resurfacing, and cosmetic chemistry. Hair removal techniques, makeup application, and an introduction to body treatments are also included. Application of theory and skills through treatment services provided to the public. Focus on communication and documentation to create customized treatment plans and product recommendations for clients that follow all safety and infection control procedures in compliance with the Arizona State Board of Cosmetology (AZBOC). | Prerequisites: EST102 or Program Manager's approval. | CLK<br><br>CLK | | 200 | |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| EST115 | 2021 Fall 1 | Aesthetics Mastery | | Focus on theories and performance of comprehensive professional aesthetics treatments for the public including communication and documentation to create customized treatment plans and product recommendations for clients that follow all safety and infection control procedures in compliance with the Arizona Board of Cosmetology (AZBOC). Overview of business planning and employment in the field including marketing, job search strategies, professional development, and self promotion. Arizona State Board of Cosmetology (AZBOC) examination licensure preparation. | Prerequisites: EST110 or Program Manager's approval. | CLK | | 200 | |
| ETL220 | 2018 Spring | Online Teaching and Learning I | | Application of and experience using an online teaching and learning environment from a student`s perspective to inform the design and support of an online course environment. Application and evaluation of online learning principles and tools for teaching and learning. Identification and development of online facilitation knowledge and skills. Introduction to the best practices in content building, course design and delivery. | Prerequisites: Permission of Instructor. | | Acad | LEC 3.0 3.0 3.0 | S |
| ETL221 | 2018 Spring | Online Teaching and Learning II | | Experience with creating an online or hybrid duplicative course module structure in an online teaching and learning environment using evidence-based practices in course design. Develop learning | Prerequisites: A grade of C or better in ETL220 or permission or Instructor. | | Acad | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | objectives and module map based on curricular principles. Using instructional design techniques develop and align materials, activities, assignments and assessments to learning objectives. Discuss and develop active learning strategies for presenting content, facilitating discussions, creating assignments and administering assessments in the online environment. | | | | | |
| EUT103 | 2020 Fall | Introduction to Rigging | | Basic fundamentals of overhead rigging. Topics covered include elements of safe rigging, rope, knots and knot tying, use of a handline, and use of blocks and tackle. Exploration of variety approaches to basic rigging tasks. | Prerequisites: [A grade of B or better in (MAT055, MAT056, and MAT057), or a grade of B or better in MAT09+, or appropriate district placement into MAT122], and a grade of C or better in ENG091, or ESL097, or appropriate district placement into ENG101. | | | LEC 2.0 2.0 2.0 | S |
| EUT104 | 2018 Fall | Equipment Safety and Operation | | Operation and maintenance of equipment used in the utility industry. Identification and inspection of the major mechanical operations of equipment, as well as performance of pre-trip inspections on utility equipment. Emphasis on safety operations. | Prerequisites: None. | Occ | Occ | L+L 2.0 2.0 2.0 | T |
| EUT105 | 2018 Fall | Introduction to Pole Climbing | | Proper climbing techniques for new climbers. Inspection and maintenance of pole climbing equipment, the equipment used in pole climbing, and how to maintain it. | Prerequisites: None. | | Occ | LAB 1.0 1.0 1.0 | T |
| EUT110 | 2008 Fall | Line Work I | | Overview of line work industry including its history, | Prerequisites: None. | | Occ | LEC 2.0 2.0 2.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | technological developments and current practices. Examines industry equipment and tools. Focuses on safety practices and procedures used in utility line work industry | | | | | |
| EUT112 | 2018 Fall | Basic Electricity: AC and DC | | Reviews the basic principles of Alternating Current (AC) and Direct Current (DC) electricity. Examines the structure and function of AC and DC circuits including series, parallel and series-parallel circuits. Includes an overview of electric systems and their applications in the utility industry. | Prerequisites: A grade of C or better in or EUT110 and (EUT115 or CAD101) or Corequisites: EUT110 and (EUT115 or CAD101). | | | L+L 4.0 4.0 4.0 | T |
| EUT115 | 2018 Fall | Training I | | Practice in the basics of climbing and working on utility poles. Focuses on apparatus and equipment, using ropes and rigging equipment, installations of single and double cross arms, pole framing and setting, use of hand line and building single-phase lines. | Prerequisites: A grade of C or better in EUT110 and EUt112 or Corequisites: EUT110 and EUT112. | Occ | Occ | L+L 4.0 12.0 12.0 | T |
| EUT210 | 2003 Spring | Line Work II | | Overview of line work industry including its history, technological developments and current practices. Examines industry equipment and tools. Focuses on hot sticking, tag out and lock out procedures with emphasis on industry safety practices and procedures | Prerequisites: A grade of C or better in EUT110. | | | LEC 2.0 2.0 2.0 | S |
| EUT211 | 2018 Fall | Electrical Apparatus | | Overview of transformers and how they operate. Reviews single and three-phase theory. Focuses on construction and hook-up of single-phase, three- phase, open Y and Delta transformer connections. Presents an | Prerequisites: A grade of C or better in EUT110, EUT112 and (EUT115 OR CAD101). Corequisites: EUT215 or CAD164. | Occ | | L+L 4.0 4.0 4.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | overview of surge arresters, including applications and installation. | | | | | |
| EUT215 | 2018 Fall | Training II | | Practice in the installation of electrical lines including transformers, reclosers, and service loops. Teaches rubber gloving, hot sticking techniques, and trenching of underground lines. Practice in the safe set-up and operation of equipment used in the line industry with a focus on the development of entry-level skills as drivers and operators. Includes procedures and practice in pole-top and bucket-truck rescues. | Prerequisites: A grade of C or better in EUT110, EUT112, and EUT115. Corequisites: EUT211. | Occ | | L+L 4.0 12.0 12.0 | T |
| EXS101 | 2019 Fall | Introduction to Exercise Science | | Introductory course that will provide the student with a general overview of the key theories and concepts, professions, and research areas associated with the field of Exercise Science. Educational pathways and career options will also be examined. | Prerequisites: None. | | Acad | LEC 3.0 3.0 3.0 | S |
| EXS112 | 2011 Spring | Professional Applications of Fitness Principles | | Basic principles of fitness for the prospective fitness professional and characteristics of quality communication and fitness leadership. Topics include behavior modification, enhancing motivation components of fitness, fitness assessment, risk stratification, exercise programming and modifications. | Prerequisites: None. | | Acad | LEC 3.0 3.0 3.0 | S |
| EXS123 | 2018 Fall | Active for Life | | Uses a variety of behavior change strategies to help fit physical activity into a busy schedule. Addresses the root causes of physical inactivity and focuses on the skills | Prerequisites: None. | | Acad | L+L 2.0 4.0 4.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | needed to establish a lifelong habit of physical activity | | | | | |
| EXS125 | 2019 Spring | Introduction to Exercise Physiology | | Principles of exercise science applied to fitness instruction. Major factors related to the function of the human body will be examined/introduced with an emphasis on exercise physiology and functional anatomy. | A grade of C or better required in all Prerequisites. Prerequisites or Corequisites: EXS101 or permission of Instructor. | | Acad | LEC 3.0 3.0 3.0 | S |
| EXS130 | 2014 Fall | Strength Fitness-Physiological Principles and Training Techniques | | Principles and techniques of strength training including strength physiology, performance factors, training recommendations, exercise techniques, and program design and management. | Prerequisites: None. | | Acad | LEC 3.0 3.0 3.0 | S |
| EXS132 | 2018 Fall | Cardiovascular Fitness: Physiological Principles and Training Techniques | | Covers principles and techniques of aerobic training and the application of these to the development of aerobic training programs. Includes instructional techniques and safety, and stresses injury prevention. | Prerequisites: None. | | Acad | L+L 3.0 3.0 3.0 | T |
| EXS138 | 2009 Spring | Starting Your Own Personal Training Business | | Overview of the personal training business in the fitness industry. Skills for becoming a successful and effective personal training business owner | Prerequisites: None. | | Acad | LEC 1.0 1.0 1.0 | S |
| EXS146 | 2022 Fall | Introduction to Exercise Testing | | Introductory course in exercise testing, to include health appraisal, risk stratification, and the selection and administration of common evidence-based assessments for apparently healthy populations. | A grade of C or better required in all Prerequisites. Prerequisites or Corequisites: EXS101 or permission of Instructor. Prior completion of or concurrent enrollment in EXS125 is recommended. | | | L+L 1.0 2.0 2.0 | T |
| EXS150 | 2013 Fall | Introduction to Sports Management | | Introduction to the field of sports management, including sports marketing and sales, facility management, event | Prerequisites: None. | Acad | Acad | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | management, professional sports, public relations, intercollegiate and interscholastic athletics. | | | | | |
| EXS190 | 2011 Fall | Small Group Personal Training in a Studio Setting | | Planning and teaching of group exercise and fitness classes in a studio setting. Leadership techniques for effective cueing, appropriate use of music, safety concerns, warm up, cool down and various formats for current popular classes. | Prerequisites: A grade of C or better in EXS125 and EXS130 or accredited national fitness certification or permission of Instructor. | | Acad | LEC 2.0 2.0 2.0 | S |
| EXS192 | 2011 Fall | Small Group Personal Training in a Gym | | Planning and leading small groups in various formats in a gym or health club setting. Development and implementation of safe and effective use of various types of popular equipment in a small group workout. | Prerequisites: A grade of C or better in EXS125 and EXS130 or accredited national fitness certification or permission of Instructor. | | Acad | LEC 2.0 2.0 2.0 | S |
| EXS205 | 2013 Fall | Introduction to Sports Law | | Application of legal principles to the sports industry. Focus on tort liability for sport administrators, managers and owners. Examines legal aspects of sports management, including laws and regulations governing player relationships, contracts, employee relations, civil rights, concessions and beverages, safety and concession product liability. Course explores how the law impacts the sports industry, both amateur and professional. | Prerequisites: A grade of C or better in EXS150. | Acad | | LEC 3.0 3.0 3.0 | S |
| EXS215 | 2022 Fall | Resistance Training and Recovery Techniques | | Fundamental methods for safe and effective instruction of resistance, functional, and athletic conditioning exercises. Application of foundational principles of physiology and kinesiology. Overview of | A grade of C or better required in all Prerequisites. Prerequisites or Corequisites: EXS101 or permission of Instructor. | | Acad | L+L 3.0 4.0 4.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | warm-up, cooldown, and recovery techniques. | | | | | |
| EXS217 | 2022 Fall | Cardiorespiratory and Flexibility Training | | Fundamental methods for safe and effective instruction of cardiorespiratory and flexibility training exercises. Application of foundational principles of physiology and kinesiology. | A grade of C or better required in all Prerequisites. Prerequisites or Corequisites: EXS101 or permission of Instructor. | | Acad | L+L 3.0 4.0 4.0 | T |
| EXS220 | 2018 Fall | Personal Trainer Practicum | | Integration of knowledge, skills and abilities developed in the prerequisite classes to develop best practices as a fitness professional. Assessment of clients' baseline fitness; development and implementation of a safe and appropriate exercise program. This capstone classroom experience is for students in the personal training certificate program prior to internship. | Prerequisites: A grade of C or better in EXS112, EXS125, EXS130, and FON105. | | Acad | L+L 3.0 3.0 3.0 | T |
| EXS241 | 2009 Spring | History of Sports in the United States | | Traces the development of sports in the United States. Explores the heritage of major sports and reviews significant historical and current issues related to sports in America | Prerequisites: None. | | Acad | LEC 3.0 3.0 3.0 | S |
| EXS246 | 2022 Fall | Advanced Exercise Testing | | Advanced course in exercise testing, to include health appraisal, risk stratification, and the selection and administration of evidence-based assessments for apparently healthy and athletic populations. Pharmacology, special populations, and environmental conditions are also examined. | Prerequisites: A grade of C or better in EXS146 or permission of Instructor. | | Acad | L+L 2.0 3.0 3.0 | T |
| EXS250 | 2018 Fall | Applied Kinesiology | | Anatomical and physiological fundamentals and applications of human movement. Emphasizes the relationship between anatomical structure and function of the | Prerequisites: A grade of C or better in (BIO160 or BIO201) and EXS125 and (EXS130 or EXS216). | | Acad | LEC 4.0 4.0 4.0 LAB 0.0 2.0 2.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | musculoskeletal system. Examines neuromuscular aspects of human motion and fundamental stabilization and movement of the extremities and spine. Analyzes kinesiological aspects of functional movement in the human body, and identifies normal and abnormal human movement patterns. | | | | | |
| EXS255 | 2022 Fall | Program Design: Muscular Fitness and Performance | | Advanced principles of muscular fitness, sports performance, and recovery techniques including needs analysis, interpretation of assessment outcomes, and evidence-based program design for healthy and athletic populations. Considerations for special populations and environments also examined. | Prerequisites: A grade of C or better in (EXS125 and EXS146) or permission of Instructor. | | Acad | L+L 3.0 4.0 4.0 | T |
| EXS257 | 2022 Fall | Program Design: Cardiorespiratory Fitness | | Advanced principles of cardiorespiratory fitness and weight management including needs analysis, interpretation of assessment outcomes, and evidence-based program design for healthy and athletic populations. Considerations for special populations and environments are also examined. | Prerequisites: A grade of C or better in (EXS125 and EXS146) or permission of Instructor. | | Acad | L+L 3.0 4.0 4.0 | T |
| EXS270 | 2022 Fall | Exercise Science Internship | | A capstone experience in a fitness or health related facility. Eighty (80) hours of designated work per credit. | Prerequisites: Completion of nine (9) credits of EXS courses with a grade of C or better, current CPR and AED card, and permission of Department/Division Chair and/or the Program Director. | CPR and AED certifications must be current through the duration of the internship. EXS270 may be repeated for a maximum of six (6) credits. | Acad | LAB 3.0 3.0 0.0 | C |
| EXS270AA | 2022 Fall | Exercise Science Internship | | A capstone experience in a fitness or health related | Prerequisites: Completion of nine (9) credits of EXS courses | CPR certification must be current through the duration of the internship. EXS270AA may | Acad | LAB 1.0 1.0 0.0 | C |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | facility. Eighty (80) hours of designated work per credit. | with a grade of C or better, current CPR and AED card, and permission of Department/Division Chair and/or the Program Director. | be repeated for a maximum of six (6) credits. | | | |
| EXS270AB | 2022 Fall | Exercise Science Internship | | A capstone experience in a fitness or health related facility. 160 hours of designated work per credit. | Prerequisites: Completion of nine (9) credits of EXS courses with a grade of C or better, current CPR and AED card, and permission of Department/Division Chair and/or the Program Director. | CPR and AED certifications must be current through the duration of the internship. EXS270AB may be repeated for a maximum of six (6) credits. Repeats 3.0 6.0 | Acad | LAB 2.0 2.0 0.0 | C |
| EXS275 | 2022 Fall | Sport Science Internship | | A capstone experience in a fitness or health related facility supervised by a National Strength and Conditioning Association (NSCA) Certified Strength and Conditioning Specialists (CSCS) professional. Eighty (80) hours of designated work per credit. | Prerequisites: Completion of a grade of C or better in nine (9) credits of EXS courses, approved by the Department Chair and/or Director, current CPR and AED card, and permission of Department or Division. | EXS275 may be repeated for a maximum of six (6) credits. | Acad | L+L 3.0 3.0 0.0 | C |
| EXS275AA | 2022 Fall | Sport Science Internship | | A capstone experience in a fitness or health related facility supervised by a National Strength and Conditioning Association (NSCA) Certified Strength and Conditioning Specialists (CSCS) professional. Eighty (80) hours of designated work per credit. | Prerequisites: Completion of a grade of C or better in nine (9) credits of EXS courses, approved by the Department Chair and/or Director, current CPR and AED card, and permission of Department or Division. | EXS275AA may be repeated for a maximum of six (6) credits. | Acad | L+L 1.0 1.0 0.0 | C |
| EXS275AB | 2022 Fall | Sport Science Internship | | A capstone experience in a fitness or health related facility supervised by a National Strength and Conditioning Association (NSCA) Certified Strength and Conditioning Specialists (CSCS) professional. Eighty (80) hours of designated work per credit. | Prerequisites: Completion of a grade of C or better in nine (9) credits of EXS courses, approved by the Department Chair and/or Director, current CPR and AED card, | EXS275AB may be repeated for a maximum of six (6) credits. | Acad | L+L 2.0 2.0 0.0 | C |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | and permission of Department or Division. | | | | |
| EXS280 | 2011 Fall | Special Topics in Exercise Science | | Conceptual and research basis of current topics in exercise science. | Prerequisites: A grade of C or better in EXS101, or EXS112, or EXS125, or permission of Instructor. | EXS280 may be repeated for credit. | Acad | LEC 2.0 2.0 2.0 | S |
| EXS280AA | 2011 Fall | Special Topics in Exercise Science | | Conceptual and research basis of current topics in exercise science. | Prerequisites: A grade of C or better in EXS101, or EXS112, or EXS125, or permission of Instructor. | EXS280AA may be repeated for credit. | Acad | LEC 0.5 0.5 0.5 | S |
| EXS280AB | 2011 Fall | Special Topics in Exercise Science | | Conceptual and research basis of current topics in exercise science. | Prerequisites: A grade of C or better in EXS101, or EXS112, or EXS125, or permission of Instructor. | EXS280AB may be repeated for credit. | Acad | LEC 1.0 1.0 1.0 | S |
| EXS282AA | 2012 Fall | Service-Learning Experience in Exercise Science | | Unpaid Service-Learning (SL) experience, completed with approved community partner. | Prerequisites: Permission of Instructor. | EXS282AA may be repeated for a total of six (6) credit hours. Standard grading available according to procedures outlined in catalog. | Acad | LAB 1.0 1.0 0.0 | L |
| EXS282AC | 2012 Fall | Service-Learning Experience in Exercise Science | | Unpaid Service-Learning (SL) experience, completed with approved community partner. | Prerequisites: Permission of Instructor. | EXS282AC may be repeated for a total of six (6) credit hours. Standard grading available according to procedures outlined in catalog. | Acad | LAB 3.0 3.0 0.0 | L |
| EXS290 | 2023 Fall | Introduction to Evidence-Based Practice | | Introduction to best practices in the acquisition, analysis, synthesis, and potential application of research in the discipline of exercise science. Specific emphasis on the application of research-based evidence for applied problem solving in exercise science. | Prerequisites: A grade of C or better in ENG101 or ENG107 or permission of Instructor. EXS101 recommended. | | Acad | LEC 3.0 3.0 3.0 | S |
| EXS298AA | 2009 Spring | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. | Prerequisites: Permission of Program Director or Instructor. | | Acad | LAB 1.0 1.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | | | | | |
| EXS298AB | 2009 Spring | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | Prerequisites: Permission of Program Director or Instructor. | | Acad | LAB 2.0 2.0 0.0 | Z |
| EXS298AC | 2009 Spring | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | Prerequisites: Permission of Program Director or Instructor. | | Acad | LAB 3.0 3.0 0.0 | Z |
| FAC101 | 2021 Fall | HVAC for Residential Systems I | HVA101 | Introduction to major components and functions of residential heating, ventilation, and air conditioning (HVAC) systems, to include heat flow and basic electrical concepts. | Prerequisites: None. | | Occ | L+L 4.0 5.0 5.0 | T |
| FAC115 | 2021 Fall | Motors, Controls and Wiring Diagrams | ELC115 | Principles of three-phase motors. Wye and delta wiring. | Prerequisites: A grade of C or better in | | | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Calculation of motor current draw. Sequence of operation, wiring diagram and electrical components associated with industrial equipment. Procedures for evaluating electrical problems. Safety stressed. | CON/HVA131 or permission of Department. | | | | |
| FAC115LL | 2021 Fall | Motors, Controls and Wiring Diagrams Lab | | Drawing wiring diagrams, wiring systems and checking electrical circuits. Troubleshooting electrical problems of three-phase motors and controls. Safety stressed. | Prerequisites: A grade of C or better in ELC/FAC/HVA105 or permission of department or ELC/FAC/HVA105LL or permission of department. Corequisites: ELC/FAC115 or permission of Department or Division. | | | LAB 1.0 3.0 3.0 | T |
| FAC186 | 2021 Fall | Electro-Mechanical Devices | | Concepts, principles, maintenance, and troubleshooting of mechanical and electro-mechanical devices. Mechanical alignment of shafts, pillow blocks, gears, and couplers on mechanical equipment. Bearings removal and installation. Installation and troubleshooting of pump seals. Vernier calipers, micrometers, tachometers. Use and operation of air flow hoods for air balancing. Belt drive systems and set up and operation of variable frequency drives. Cooling tower water treatment controls and chemical additives. | Prerequisites: A grade of C or better in HVA130 or permission of Department. | Occ<br><br>Occ | | L+L 3.0 5.0 5.0 | T |
| FAC210 | 2021 Fall | Facilities Air Conditioning Systems | HVA210 | Fundamental principles of air conditioning including all-air, all-water (hydronic) and air-water combination systems. Overview of the physical principles, including air | Prerequisites: A grade of C or better in HVA130 or permission of Department. | | | L+L 4.0 6.0 6.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | distribution systems and heating and cooling load calculation. System components and application theory for boilers, chillers, pumps, fans, and cooling towers. Theory and application of central air conditioning systems, air cleaning and humidification devices, pressure boosting, heat storage, expansion and pressurization equipment. Properties of water, pressure distribution in hydronic systems, flow in pipes, pressure drop/head loss, pump applications and pressurization of open and closed hydronic systems. Fundamentals of low and high temperature water systems. | | | | | |
| FAC220 | 2021 Fall | Controls and Instrumentation | | Control theory and terminology, pneumatics, electrical, and electronic control devices, flow control devices, elementary and advanced control systems. Electric and electronic control systems, programmable logic controls, and facilities management systems. Process and terms used in instrumentation, methods of heat transfer, calculations for heat temperature, and heat transfer. Measuring and calculating pressure, fluid flow, measuring humidity, control action, and instrumentation symbols. | Prerequisites: A grade of C or better in FAC/HVA210 or permission of Department. | Occ | | L+L 4.0 6.0 6.0 | T |
| FAC231 | 2021 Fall | Codes | HVA231 | Local codes, Federal Housing Administration and Urban Development standards. Acceptable building practices based on the Uniform Building | Prerequisites: None. | | Occ | L+L 3.0 5.0 5.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Code, National Electric Code, Uniform Mechanical Code, and the Uniform Plumbing Code. Impact of American with Disabilities Act (ADA) on new and existing facilities. | | | | | |
| FAC235 | 2021 Fall | Commercial Air and Water Test and Balance | | Specific types of duct distribution systems, fans, coil types and applications. Characteristics of Heating Ventilation and Air Conditioning (HVAC) piping systems. Specific types of pumps and applications. Air and water flow measuring and control devices. Collection and analysis of data specific to air handling systems. Principles of fluid dynamics, thermal loading factors, system design, and component performance. Test and balance plans for air and water systems. | Prerequisites: A grade of C or better in HVA210. | Occ | | L+L 4.0 6.0 6.0 | T |
| FAC240 | 2020 Fall | Fire Protection Systems | OSH240 | Building occupant safety requirements including industry standards, regulations, building codes, fire codes and life safety codes. Fundamentals of fire protection system operation, inspection and maintenance. Principles of life safety systems including fire door and walls, smoke control systems, and exit components. | Prerequisites: A grade of C or better in OSH106AC. | | | LEC 3.0 3.0 3.0 | S |
| FAC298AA | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment | Prerequisites: Permission of Program Director or Instructor. | Occ | | LAB 1.0 1.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | | | | | |
| FAC298AB | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | Prerequisites: Permission of Program Director or Instructor. | Occ | | LAB 2.0 2.0 0.0 | Z |
| FAC298AC | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | Prerequisites: Permission of Program Director or Instructor. | Occ | | LAB 3.0 3.0 0.0 | Z |
| FCS250 | 2023 Fall | Portfolio Development and Professional Writing | | Techniques of portfolio development to document prior learning gained through experience, training, and/or previous education. Includes study of learning styles and levels, analysis of personal | Prerequisite: A grade of C or better in 12 credit hours of CFS and/or FCS coursework or permission of Program Director. | | | LEC 3.0 3.0 0.0 | C |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | and vocational experiences, synthesis of these with competencies for specific courses, and integration of the above with other material to create a portfolio to be introduced for evaluation for credit. | | | | | |
| FCS260 | 2023 Fall | Family and Consumer Science Internship | | Work experience in community-based, family-focused service and/or educational organizations. 80 hours of designated work per credit. | Prerequisites: Permission of Instructor. | FSC260 may be repeated for a total of six (6) credit hours. | Occ | LEC 1.0 1.0 0.0 | C |
| FLA240 | 2013 Spring | Foreign Language Teaching Methods | | Introduction to methods and techniques for second-language teaching. Principles and procedures for building language proficiency, including the assessment of practical experience through mini-teaching situations | Prerequisites: None. | | Acad | LEC 3.0 3.0 3.0 | S |
| FLA282AA | 2014 Summer | Service-Learning Experience in Foreign Languages | | Unpaid Service-Learning (SL) experience, completed with approved community partner. | Prerequisites: Permission of Instructor. | FLA282AA may be repeated for a total of six (6) credit hours. Standard grading available according to procedures outlined in catalog. | Acad | LAB 1.0 1.0 0.0 | L |
| FLA282AB | 2014 Summer | Service-Learning Experience in Foreign Languages | | Unpaid Service-Learning (SL) experience, completed with approved community partner. | Prerequisites: Permission of Instructor. | FLA282AB may be repeated for a total of six (6) credit hours. Standard grading available according to procedures outlined in catalog. | Acad | LAB 2.0 2.0 0.0 | L |
| FLA282AC | 2014 Summer | Service-Learning Experience in Foreign Languages | | Unpaid Service-Learning (SL) experience, completed with approved community partner. | Prerequisites: Permission of Instructor. | FLA282AC may be repeated for a total of six (6) credit hours. Standard grading available according procedures outlined in catalog. | Acad | LAB 3.0 3.0 0.0 | L |
| FMP104 | 2020 Fall | Scriptwriting | | Overview of the script writing process including developing objectives, writing research agendas, designing content outlines, as well as writing a treatment, training script, marketing script, and dramatic training script. Emphasis on the dramatic motion picture | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | screenplay format, the dramatic curve, believable character creation, and dialogue within the first ten pages of a screenplay. | | | | | |
| FMP105 | 2020 Fall | Studio Production | | Multiple camera studio production for corporate, film, cable, and broadcast applications. Basic single and multi-camera production techniques, talent and camera blocking, set design, scriptwriting; shooting; lighting, audio and video recording; production crew team member experience, pre-production planning and budgeting and decision-making. | Prerequisites: None. | | Occ | LEC 3.0 2.0 2.0 LAB 0.0 3.0 3.0 | T |
| FMP108 | 2023 Spring | Video Production | | Foundations of media production, including single camera shooting, audio recording, lighting, and editing. | Prerequisites: None. | | Occ | LEC 3.0 2.0 2.0 LAB 0.0 3.0 3.0 | T |
| FMP111 | 2023 Spring | Screenwriting I | | Provides a foundation in screenwriting for film and television, including introduction to story theory, character development, and screenplay format. | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| FMP111AA | 2023 Spring | Scripting for the Media | | Provides an overview of screenwriting for short documentaries, podcasts, training films, commercials and public service announcements (PSAs). | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| FMP114 | 2020 Fall | Audio Production | | Focus on audio in the production of media projects. Emphasis on location-based, studio and sound room for corporate, cable and broadcast applications. Concepts covered include: microphones and audio recording equipment; audio production techniques using | Prerequisites: A grade of C or better in FMP105 or FMP108. | | Occ | LEC 3.0 2.0 2.0 LAB 0.0 3.0 3.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | shotgun microphones or lavaliers while in the field; audio recording in the sound room, multi-track recording, and mixdown; audio editing using a non-linear computer program; music libraries; sound effects; and editing in audio post-production. | | | | | |
| FMP115 | 2020 Fall | Introduction to Editing for Media | | Introduction to editing for media on a nonlinear editing system. | Prerequisites: None. | | Occ | L+L 3.0 4.0 4.0 | T |
| FMP117 | 2020 Fall | Introduction to Cinematography | FMT117 | Introductory workshop focusing on basic film and video camera operation and lighting. Emphasis on the role of the cinematographer, basic camera operation and lens selection, introduction to cinematic storytelling to include interpreting the script, basic lighting techniques, exposure meters, film stocks, and planning for the editing style. | Prerequisites: A grade of C or better in FMP108, or FMT136, or permission of Instructor. | | Occ | L+L 3.0 5.0 5.0 | T |
| FMP125 | 2023 Spring | Podcasting | | Overview of evolution and key elements of podcasting. Focuses on development and creation of original podcasts, including pre-production, post-production, and peer review techniques. | Prerequisites: None. | | Occ | L+L 3.0 4.0 4.0 | T |
| FMP134 | 2020 Fall | Pre-Production for Film and Media | | Introduction to elements of pre-production for film, television, and commercial productions. Focuses on aesthetics, writing, budgeting, and selecting cast and crew. Features pre-production meetings to establish style, location, production design, shot list/storyboard, sound design, and shooting schedule. Pre-production of one narrative or collaborative commercial project required. | Prerequisites: A grade of C or better in FMT100, or FMP108, or permission of Department or Division. | Occ | | L+L 3.0 4.0 4.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Working as crew on one class shoot required. | | | | | |
| FMP151 | 2020 Fall | TV and New Media Production | FMT151 | Introduction to multi-camera television production in studio and on location. Emphasizes teamwork and group production through a variety of program types. | Prerequisites: A grade of C or better in FMP105, or FMT100, or permission of Instructor. | | Occ | L+L 3.0 4.0 4.0 | T |
| FMP170 | 2023 Fall | Introduction to Documentary Filmmaking | | An in-depth study into the art, ethics and process of documentary filmmaking. | Prerequisites: None. ENG101 or ENG107 strongly recommended. | FMP170 is a writing intensive course. Students who have not completed at least one semester of college-level English composition are encouraged to speak to the instructor or program director about their preparation. | Occ | LEC 3.0 3.0 3.0 | S |
| FMP202 | 2020 Fall | Directing | | Techniques for directing and blocking talent. Techniques for working with location and studio crews. Field and studio multi-camera production equipment usage. Advanced single and multi-camera shooting styles for corporate, cable and broadcast productions. Advanced post-production techniques for audio, video special effects for editing. The role of the director/producer in pre-production planning for the shoot. Advanced scriptwriting, script breakdowns, production forms, budgeting, and developing positive client relationships. | Prerequisites: A grade of C or better in FMP105. | | Occ | LEC 3.0 2.0 2.0 LAB 0.0 3.0 3.0 | T |
| FMP204 | 2023 Spring | Advanced Video Production | | Advanced techniques of digital video production from concept to delivery with an emphasis on production in the field. | Prerequisites: A grade of C or better in FMP108. | | Occ | LEC 3.0 2.0 2.0 LAB 0.0 3.0 3.0 | T |
| FMP206 | 2020 Fall | Production Design | FMT206 | Intermediate workshop on Film Production Design focusing on areas such as script breakdowns for design elements, theories for symbolic and iconic visual | Prerequisites: A grade of C or better in (FMP108 and [FMP134 or FMT134]), or FMT136, or permission of Instructor. | | Occ | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | content, color and lighting theory, miniatures and model construction and other aspects of production design. | | | | | |
| FMP208 | 2020 Fall | Production Company Management | | The coordination and supervision of the personnel involved in the production team; preparation of charge-back system; facility budgets in equipment, personnel, and operation; interaction with senior management. | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| FMP211 | 2023 Spring | Screenwriting II | | Advanced workshop in screenwriting for feature films and television. | Prerequisites: A grade of C or better in FMP111 or permission of Instructor. | | Occ | L+L 3.0 4.0 4.0 | T |
| FMP213AA | 2020 Fall | Motion Picture Workshop: On-Location Shooting | | Practical work and classes in film production. Features on location shooting. | Prerequisites: A grade of C or better in FMT136 or permission of Instructor. | | Occ | L+L 4.0 4.0 4.0 | T |
| FMP214AA | 2023 Spring | Video Production Internship | | Video production work experience in a business or industry. 80 hours of designated work per credit. | Prerequisites: Permission of Instructor. | FMP214AA may be repeated for a total of six (6) credit hours. | Occ | L+L 1.0 1.0 0.0 | C |
| FMP214AB | 2023 Spring | Video Production Internship | | Video production work experience in a business or industry. 80 hours of designated work per credit. | Prerequisites: Permission of Instructor. | FMP214AB may be repeated for a total of six (6) credit hours. | Occ | L+L 2.0 2.0 0.0 | C |
| FMP214AC | 2023 Spring | Video Production Internship | | Video production work experience in a business or industry. 80 hours of designated work per credit. | Prerequisites: Permission of Instructor. | FMP214AC may be repeated for a total of six (6) credit hours. | Occ | L+L 3.0 3.0 0.0 | C |
| FMP215 | 2020 Fall | Digital Video Effects | | Basics of video-production including the use of colors, textures, and shapes in the preparation of graphics for video production. Graphics design using the rules of good design and techniques for interaction with Producer/Directors. Story boarding and animation techniques, character generation. Video special effects creation and design, | Prerequisites: A grade of C or better in FMP108, or FMP115, or permission of Instructor. FMP115 strongly recommended for students in Film and Media Production (3570). ADA/ART/MMT184 strongly recommended. | | Occ | LEC 3.0 2.0 2.0 LAB 0.0 3.0 3.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | logo and photo import into video productions. | | | | | |
| FMP216 | 2020 Fall | Screenwriting III | | Advanced workshop in narrative screenwriting for film and television. | Prerequisites: A grade of C or better in FMP211. | | Occ | L+L 3.0 7.0 7.0 | T |
| FMP260 | 2020 Fall | Film and Media Producing and Financing | | Guides the independent film/video producer through basic business aspects of production. Examines methods of setting up a production company, strategies for financing and distribution, and approaches to packaging a film/video project. Includes development of a prospectus on a specific film/video project. | Prerequisites: None. | | Occ | L+L 3.0 4.0 4.0 | T |
| FMP270 | 2020 Fall | Documentaries for Social Change | FMT270 | Study of and practical application in social documentary film production. Focuses on diverse voices and styles of social documentaries, philosophical issues faced by the filmmaker, technical considerations, and business elements required for financial and commercial success of the social documentary. | Prerequisites: A grade of C or better in (FMP108 and FMP115), or FMT136, or permission of Instructor. | FMP/FMT270 may be repeated for a total of twelve (12) credits. | Occ | L+L 4.0 6.0 6.0 | T |
| FMP275 | 2020 Fall | Advanced Portfolio Production | | Advanced workshop in portfolio development for Producers, Directors, Cinematographers, Production Designers, Editors, and Screenwriters. | Prerequisites: Permission of Instructor. | All students must submit an application. FMP275 may be repeated for a total of twelve (12) credits. | Occ | L+L 4.0 7.0 7.0 | T |
| FMP294AA | 2020 Fall | Special Topics in Motion Picture, Television, Documentary, and New Media Production | FMT294AA | Exploration of current topics, issues and aspects of motion picture, television, documentary, and new media production. | Prerequisites: A grade of C or better in (FMP108 and FMP115) or FMT136, or permission of Instructor. | FMP/FMT294AA may be repeated for a total of three (3) credit hours. | Occ | LEC 1.0 1.0 1.0 | S |
| FMP294AB | 2020 Fall | Special Topics in Motion Picture, Television, Documentary, and New Media Production | FMT294AB | Exploration of current topics, issues and aspects of motion picture, television, documentary, and new media production. | Prerequisites: A grade of C or better in (FMP108 and FMP115) or FMT136, or permission of Instructor. | FMP/FMT294AB may be repeated for a total of six (6) credit hours. | Occ | LEC 2.0 2.0 2.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| FMP294AC | 2020 Fall | Special Topics in Motion Picture, Television, Documentary, and New Media Production | FMT294AC | Exploration of current topics, issues and aspects of motion picture, television, documentary, and new media production. | Prerequisites: A grade of C or better in (FMP108 and FMP115) or FMT136, or permission of Instructor. | FMP/FMT294AC may be repeated for a total of nine (9) credit hours. | Occ | LEC 3.0 3.0 3.0 | S |
| FMP298AA | 2020 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. | Prerequisites: Permission of Program Director or Instructor. | | Occ | LAB 1.0 1.0 0.0 | Z |
| FMP298AB | 2020 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. | Prerequisites: Permission of Program Director or Instructor. | | Occ | LAB 2.0 2.0 0.0 | Z |
| FMP298AC | 2020 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of | Prerequisites: Permission of Program Director or Instructor. | | Occ | LAB 3.0 3.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | independent study and individualized learning to be combined to maximize student development. | | | | | |
| FMT100 | 2020 Fall | Introduction to Production | | Introduction to the major production components of a multimedia project. | Prerequisites: None. | | Occ | L+L 3.0 3.0 3.0 | T |
| FMT107 | 2020 Fall | Career Pathways in the Media | | Emphasis on theories of broadcasting, how the media functions in our society, the business structure of the U.S. media environment, the cultural import and potential impact of the programming and films, and the growth of new communications technologies. | Prerequisites: None. | Course Attribute(s): General Education Designation: Humanities, Arts and Design - [HU] | Occ | LEC 3.0 3.0 3.0 | S |
| FMT117 | 2020 Fall | Introduction to Cinematography | FMP117 | Introductory workshop focusing on basic film and video camera operation and lighting. Emphasis on the role of the cinematographer, basic camera operation and lens selection, introduction to cinematic storytelling to include interpreting the script, basic lighting techniques, exposure meters, film stocks, and planning for the editing style. | Prerequisites: A grade of C or better in FMP108, or FMT136, or permission of Instructor. | | Occ | L+L 3.0 5.0 5.0 | T |
| FMT118 | 2020 Fall | Lighting for Film, TV, and Media | | Introductory workshop focusing on lighting for video and film productions. Emphasis on the role of the cinematographer in developing a look and mood for a production and to tell a story through the use of light and color. | Prerequisites: None. | | Occ | L+L 3.0 5.0 5.0 | T |
| FMT120 | 2023 Fall | Introduction to Sound Design for Film and Video | MUC120 | Basic principles of recording and mixing sound for film and video. Includes voice-over, automatic dialog replacement (ADR), foley, ambience, special effects and music. Emphasis on analog and | Prerequisites: A grade of C or better in (FMT100 and FMT136) or permission of Instructor. | | Occ | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | digital recording techniques in the field as well as in a controlled environment. | | | | | |
| FMT121 | 2020 Fall | Story Theory for Film, Television and Media | | Introduction to story theory and structure as it applies to screenwriting for feature films, television programs (one-hour dramas and sitcoms) and related media. | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| FMT123 | 2020 Fall | Feature Screenwriting: First Draft | | Intermediate workshop focused in writing initial draft of a narrative feature film screenplay. | Prerequisites: A grade of C or better in FMT121. | | | L+L 3.0 6.0 6.0 | T |
| FMT124 | 2020 Fall | Television Screenwriting: Writers Room | | Intermediate workshop focused on understanding the collaborative nature of series/television (TV) story development (i.e., writers room) and writing initial draft of a spec script for an existing TV one-hour drama or half-hour sitcom. | Prerequisites: A grade of C or better in FMT121. | | | L+L 3.0 6.0 6.0 | T |
| FMT134 | 2021 Spring | 16mm Film Workshop: Pre-Production | | Introduction to elements of pre-production for motion picture and television. Focuses on aesthetics, scriptwriting, budgeting, and selecting cast and crew. Features pre-production meetings to establish style, location, art design, shot sheet/storyboard, sound design, shooting schedule and film stock/video tapes. Pre-production of one film project and one video project required. Working as crew on one class shoot required. | Prerequisites: A grade of C or better in FMP105, or FMT100, or permission of Department or Division. | Occ<br><br>Occ<br><br>Occ | | L+L 3.0 4.0 4.0 | T |
| FMT135 | 2021 Spring | 16mm Film Workshop: Production | | Introduction to elements of production for motion picture and television. Focuses on directing, crew responsibilities, camera operation, lenses, lighting and sound recording. Production of one film shoot and one video shoot required. | Prerequisites: A grade of C or better in FMT134, or permission of Department or Division. | | | L+L 3.0 3.0 3.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| FMT136 | 2021 Spring | 16mm Film Workshop: Post-Production | | Introduction to elements of post-production for motion picture and television. Focuses on editing, titles, sound design and marketing strategies. Post-production and marketing of one film and one video required. | Prerequisites: A grade of C or better in FMT135 or permission of Department or Division. | | | L+L 3.0 3.0 3.0 | T |
| FMT151 | 2020 Fall | TV and New Media Production | FMP151 | Introduction to multi-camera television production in studio and on location. Emphasizes teamwork and group production through a variety of program types. | Prerequisites: A grade of C or better in FMP105, or FMT100, or permission of Instructor. | Occ | Occ | L+L 3.0 4.0 4.0 | T |
| FMT206 | 2020 Fall | Production Design | FMP206 | Intermediate workshop on Film Production Design focusing on areas such as script breakdowns for design elements, theories for symbolic and iconic visual content, color and lighting theory, miniatures and model construction and other aspects of production design. | Prerequisites: A grade of C or better in (FMP108 and [FMP134 or FMT134]), or FMT136, or permission of Instructor. | | Occ | LEC 3.0 3.0 3.0 | S |
| FMT217 | 2020 Fall | Advanced Cinematography | | Advanced workshop focusing on film and video camera operation and lighting. Emphasis on the role of the cinematographer and camera department, in-depth camera operation and lens selection, advanced cinematic storytelling to include interpreting the script, advanced lighting techniques, exposure meters, film stocks, and planning for the editing style. In-depth analysis of on-set communication and collaboration between the Cinematographer and other key crew members. | Prerequisites: A grade of C or better in FMP/FMT117 and (FMP204 or FMT241), or permission of Instructor. | FMT217 may be repeated for a total of six (6) credit hours. Repeats 2.0 6.0 | Occ | L+L 3.0 5.0 5.0 | T |
| FMT220 | 2023 Fall | Advanced Sound Design for Film and Video | MUC220 | Explores techniques and advanced applications used in designing sound using original | Prerequisites: A grade of C or better in FMT/MUC120 or permission of Instructor. | | Occ | LEC 3.0 3.0 3.0 LAB 0.0 2.0 2.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | student footage on a non-linear editing system. | | | | | |
| FMT223 | 2020 Fall | Feature Screenwriting: The Rewrite | | Advanced workshop focused in rewriting narrative feature film screenplay, developing an individual writing voice and understanding the professional feature writing landscape. | Prerequisites: A grade of C or better in FMT123. | | | L+L 3.0 6.0 6.0 | T |
| FMT224 | 2020 Fall | Television Screenwriting: Original TV Pilot | | Advanced workshop focused on creating an original television series concept, writing an original pilot script for the series, developing an individual writing voice and understanding the professional television writing landscape. | Prerequisites: A grade of C or better in FMT121. | Occ | | L+L 3.0 6.0 6.0 | T |
| FMT230 | 2023 Fall | Motion Picture Directing | | Theory and practice in directing the motion picture. Includes overview of the roles and responsibilities of the film director, examples of film directing, and practice sessions in analyzing a script, creating a scene, working with actors, conducting rehearsals, planning the camera movements and overseeing elements of a production. | Prerequisites: A grade of C or better in (FMT117, FMT/MUC120, FMT121, and FMT241) or permission of Instructor. | FMT230 may be repeated for a total of eight (8) credit hours.<br><br>Occ | Occ | L+L 4.0 4.0 4.0 | T |
| FMT241 | 2020 Fall | AVID Media Composer Editing | | Editing on a Media Composer non-linear editing system, including timeline editing, trimming, dialog and action editing, refining audio, basic multi-layer motion, and 3D effects; also covers basic and intermediate color correction, intermediate and three-dimension titling, working with tape and file based media, and media management. | Prerequisites: A grade of C or better in FMT136 or permission of Instructor. | | Occ | L+L 4.0 6.0 6.0 | T |
| FMT242 | 2020 Fall | Professional Portfolio for Film, TV, and Media | | Explores techniques and applications used in editing an individual project on an editing system. | Prerequisites: A grade of C or better in FMT241 or permission of Instructor. | Students must have previously created production footage from other course work or independent work for use in the | Occ | L+L 2.0 4.0 4.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | class projects. FMT242 may be repeated for a total of six (6) credit hours. | | | |
| FMT242AA | 2020 Fall | Professional Portfolio in Screenwriting | | Explores techniques and applications used in screenwriting for an individual project. | Prerequisites: A grade of C or better in FMT223 or FMT224. | FMT242AA may be repeated for a total of six (6) credit hours. | Occ | L+L 2.0 4.0 4.0 | T |
| FMT243 | 2020 Fall | Introduction to Video Compositing and Title Animation | | Introduction to computer-based video compositing and title animation. | Prerequisites: A grade of C or better in FMT241 or permission of Instructor. | | Occ | L+L 4.0 6.0 6.0 | T |
| FMT244 | 2020 Fall | Film Finishing | | Introduction to editing system and applications. | Prerequisites: A grade of C or better in FMT241 or permission of Instructor. | | Occ | L+L 4.0 6.0 6.0 | T |
| FMT248 | 2023 Fall | Advanced Film Production Techniques | | Advanced workshop in the techniques of film production. Emphasizes real world simulation of production departments. | Prerequisites: A grade of C or better in (FMP/FMT117 and FMT/MUC120) or permission of Instructor. | | Occ | L+L 4.0 6.0 6.0 | T |
| FMT251 | 2020 Fall | Advanced Studio Production | | Advanced video production within a studio environment. | Prerequisites: A grade of C or better in (FMP/FMT117, FMT121, FMT151, and FMT241) or permission of Instructor. | | Occ | L+L 3.0 5.0 5.0 | T |
| FMT260 | 2020 Fall | Motion Picture Producing and Production Management | | Introduction to functions specific to producing, production management, and business affairs for film, television, and new media productions. | Prerequisites: A grade of C or better in FMT136. | | | L+L 3.0 3.0 3.0 | T |
| FMT263 | 2020 Fall | Film Style, Theory and Analysis | | Survey of the development of the art and theory of motion pictures, including study and criticism of stylistic elements. Tailored toward teaching different approaches and techniques of filmmaking as demonstrated in a variety of historic film movements. Designed for students focusing on filmmaking. | Prerequisites: A grade of C or better in FMT136 or permission of Instructor. | Occ | Occ | LEC 4.0 4.0 4.0 | S |
| FMT270 | 2020 Fall | Documentaries for Social Change | FMP270 | Study of and practical application in social documentary film production. | Prerequisites: A grade of C or better in (FMP108 and FMP115), | FMP/FMT270 may be repeated for a total of twelve (12) credits. | Occ | L+L 4.0 6.0 6.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Focuses on diverse voices and styles of social documentaries, philosophical issues faced by the filmmaker, technical considerations, and business elements required for financial and commercial success of the social documentary. | or FMT136, or permission of Instructor. | | | | |
| FMT280 | 2020 Fall | The Art of Editing | | A lab intensive post-production course. Emphasizes the art of editing movie and television media and the development of editing skills. Editing products, including demo reels, from instructor provided or student provided quality raw footage. | Prerequisites: A grade of C or better in FMT241 or permission of Instructor. | | Occ | L+L 3.0 5.0 5.0 | T |
| FMT283 | 2020 Fall | Advanced Non-Linear Editing Techniques | | Explores techniques and advanced applications used in creating and editing an advanced project on a non-linear editing system. | Prerequisites: A grade of C or better in FMT241 or permission of Instructor. | | Occ | L+L 4.0 6.0 6.0 | T |
| FMT283AA | 2020 Fall | Advanced Non-Linear Editing Techniques: AVID | | Explores techniques and advanced applications used in creating and editing an advanced project on a non-linear editing system. | Prerequisites: A grade of C or better in FMT241 or permission of Instructor. | | Occ | L+L 4.0 6.0 6.0 | T |
| FMT294AA | 2020 Fall | Special Topics in Motion Picture, Television, Documentary, and New Media Production | FMP294AA | Exploration of current topics, issues and aspects of motion picture, television, documentary, and new media production. | Prerequisites: A grade of C or better in (FMP108 and FMP115) or FMT136, or permission of Instructor. | FMP/FMT294AA may be repeated for a total of three (3) credit hours. | Occ | LEC 1.0 1.0 1.0 | S |
| FMT294AB | 2020 Fall | Special Topics in Motion Picture, Television, Documentary, and New Media Production | FMP294AB | Exploration of current topics, issues and aspects of motion picture, television, documentary, and new media production. | Prerequisites: A grade of C or better in (FMP108 and FMP115) or FMT136, or permission of Instructor. | FMP/FMT294AB may be repeated for a total of six (6) credit hours. | Occ | LEC 2.0 2.0 2.0 | S |
| FMT294AC | 2020 Fall | Special Topics in Motion Picture, Television, Documentary, and New Media Production | FMP294AC | Exploration of current topics, issues and aspects of motion picture, television, documentary, and new media production. | Prerequisites: A grade of C or better in (FMP108 and FMP115) or FMT136, or permission of Instructor. | FMP/FMT294AC may be repeated for a total of nine (9) credit hours. | Occ | LEC 3.0 3.0 3.0 | S |
| FMT296WA | 2020 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to | Prerequisites: Completion of at least twelve (12) college | | | LAB 1.0 5.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | accomplish an outcome related to the career objectives of the students. | credits minimum 2.6 grade point average and be able to obtain a position related to student's academic or career goals (student's present job may qualify) or permission of Instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor. | | | | |
| FMT296WB | 2020 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to student's academic or career goals (student's present job may qualify) or permission of Instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor. | | Occ | LAB 2.0 10.0 0.0 | Z |
| FMT296WC | 2020 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to student's academic or career goals (student's present job may qualify) or permission of Instructor. Corequisites: Must be concurrent in at | | | LAB 3.0 15.0 0.0 | Z |



Occ

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | least one class which is related to student's major or career interest or with permission of the Instructor. | | | | |
| FMT296WD | 2020 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to student's academic or career goals (student's present job may qualify) or permission of Instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor. | | Occ | LAB 4.0 20.0 0.0 | Z |
| FMT298AA | 2020 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. | Prerequisites: Permission of Program Director or Instructor. | | Occ | LAB 1.0 1.0 0.0 | Z |
| FMT298AB | 2020 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type | Prerequisites: Permission of Program Director or Instructor. | | Occ | LAB 2.0 2.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. | | | | | |
| FMT298AC | 2020 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. | Prerequisites: Permission of Program Director or Instructor. | | Occ | LAB 3.0 3.0 0.0 | Z |
| FON100 | 2012 Spring | Introductory Nutrition | | Introduction to the science of food and human nutrition. Current sustainable dietary recommendations and applications for maximizing well-being and minimizing risk of chronic disease throughout the life cycle. An overview of the nutrients, emphasizing the importance of energy and fluid balance, and optimal functioning of the digestive system. Understanding factors that influence food intake in different cultures. Methods for evaluating credibility of nutrition claims, a focus on modern food safety and technology practices, and a worldview of nutrition are included. Emphasis is on personal dietary behavior change for a holistic life of wellness. | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| FON100LL | 2019 Spring | Introductory Nutrition Laboratory | | Introduction to nutrition using anthropometric, biochemical, clinical, and dietary analysis. Includes the use of qualitative and quantitative methodology to determine nutritional status and evaluate methodological applications. Emphasis on relationship between energy balance and weight regulation and health. | Prerequisites: None. | Self-evaluative laboratory experience to complement FON100. | Occ | LAB 1.0 3.0 3.0 | T |
| FON101 | 2020 Spring | Critical Food Studies | | Introduction to foundational methodologies and concepts central to the interdisciplinary field of critical food studies. Basic concepts related to food governance, food security, food and social justice, and sustainability. Exploration of questions related to the food system including food production and distribution, access to food, and ecological consequences of agricultural practices. Issues of sustainability and equity are evaluated throughout the agri-food system from farm to fork. | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| FON104 | 2018 Fall | Certification in Food Service Safety and Sanitation | | Preparation for and certification in a national food sanitation and safety program. Emphasis on food from purchasing, receiving, and storing to preparation, holding, and serving. Focuses on safe and sanitary food service facilities and equipment, employee habits and personal hygiene, and role of management in safety and sanitation. Includes time-temperature principles, foodborne illnesses, pest control, accident prevention, standards for cleaning and | Prerequisites: None. | | Occ | LEC 1.0 1.0 1.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | sanitizing, and regional regulations and standards. | | | | | |
| FON125 | 2017 Fall | Introduction to Professions in Food, Nutrition, and Dietetics | | Overview and discussion of career opportunities in the fields of food, nutrition, and dietetics. Includes information about history, ethics, standards of practice, communication and counseling skills. Emphasis on how to become a Registered Dietitian Nutritionist or a Dietetic Technician Registered. | Prerequisites: None. | | Occ | LEC 1.0 1.0 1.0 | S |
| FON135 | 2022 Fall | Sustainable Cooking | | Basic cooking techniques for healthful and enjoyable eating. Emphasis on strategies for maximizing the use of whole, local, and nutrient-dense food while focusing on applying the dietary recommendations for optimal health to food choices. Opportunities to learn about sustainable food living and identifying resources that enable people to be more in control of their food supply. Covers issues of diversity as related to sustainable food systems and equitable access to food. | Prerequisites: None. | Laboratory component involves hands-on experience in the college teaching or commercial kitchen and garden (or similar teaching or commercial food operation). Students employed in a farm-to-table or similar operation may complete their hands-on portion under their employer's supervision. | Occ | L+L 3.0 4.0 4.0 | T |
| FON142AB | 2018 Fall | Science of Food | | Exploration and Application of Scientific Principles of Food; experiences with ingredient functionality and application in cooking techniques. | Prerequisites: None. | | Occ | L+L 3.0 5.0 5.0 | T |
| FON143 | 2019 Summer | Food and Culture | | Understanding diet in the context of culture. Historical, religious, and sociocultural influences on the development of cuisine, meal patterns, eating customs, cooking methods, and nutritional status of various ethnic groups. Traditional and | Prerequisites: None. | FON143 may be repeated for a total of six (6) credit hours. | Occ | L+L 3.0 3.0 3.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | contemporary food habits. Health and social impact of changes in diet. Preparation and serving of foods from many cultures. | | | | | |
| FON161 | 2019 Summer | Sustainable Food Production Systems | | Overview of the global food system. Covers historical events impacting current food production model and the effects food systems have on the environment, health, and communities. Also covers conventional agriculture and food safety concerns. Emphasis on the movement towards sustainable food systems. | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| FON163 | 2022 Fall | Sustainable Kitchen Practices | | Overview of sustainable kitchen practices. Covers energy efficient appliances and equipment, as well as electricity and water conservation practices. Includes environmentally friendly kitchen products and methods for disposal of waste. Researching food sources, purchasing locally, and building relationships, and promoting local food equity are also covered. Emphasis in preparing organic, seasonal, and local foods, and developing sustainable menus. | Prerequisites: None. | | Occ | L+L 3.0 5.0 5.0 | T |
| FON165 | 2022 Fall | Sustainable Food Entrepreneurship | | Overview of the process for starting a small food business. Covers stages for introducing a variety of food products into the market, food safety, and sanitation requirements. Includes business and marketing strategies, processing, labeling, and distribution requirements for different food product types | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | such as dairy, meat, poultry, and fish. Covers the importance of diversity, equity, and inclusion for the sustainable food entrepreneur. Also covers available resources for small food business support. | | | | | |
| FON207 | 2023 Fall | Introduction to Nutrition Services Management | | Principles, knowledge, and techniques required for effective nutrition services management. Includes nutrition service issues in relation to health care trends, leadership skills, management theories and styles, food service manager responsibilities, and laws which pertain to nutrition service operations. | Prerequisites: A grade of C or better in (MAT055, MAT056, and MAT057), or (MAT090, or MAT091, or MAT092), or satisfactory mathematics placement. | | | LEC 3.0 3.0 3.0 | S |
| FON210 | 2013 Spring | Sports Nutrition and Supplements for Physical Activity | | Principles of nutrition applied to fitness, exercise, and sports. Dietary fundamentals as applied to body fuels, hydration, and other unique needs for exercise and sports. Includes dietary guidelines for weight or endurance training, glycogen loading, the pre-game meal, and glycogen recovery. Emphasis on maximizing fitness, performance, and safety. Discussion of supplements and their effects on metabolic enhancement. Discussion of anabolic, catabolic, and energy-producing agents. Addresses current supplements on the market. | Prerequisites: A grade of C or better in FON100 or FON241. | Occ | Occ | LEC 3.0 3.0 3.0 | S |
| FON225 | 2021 Fall | Research in Complementary and Alternative Nutrition Therapies | | Introduction to basic research methods and statistics as applied to complementary and alternative nutrition therapies. Emphasis on the analysis and | Prerequisites: A grade of C or better in MAT092 or equivalent or satisfactory score on district placement exam. | Course Attribute(s): General Education Designation: Literacy and Critical Inquiry - [L] | Occ | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | interpretation of health-related research. | | | | | |
| FON230 | 2018 Fall | Nutrition for Special Populations | | Nutritional changes and appropriate management across the lifespan to maximize health and longevity. Addresses needs of those individuals with particular dietary restrictions, requirements or deficiencies. Includes special dietary needs of those diagnosed with common pathologies such as heart disease, diabetes. | Prerequisites: A grade of C or better in FON100, or FON241, or permission of Instructor. | | Occ | LEC 3.0 3.0 3.0 | S |
| FON241 | 2023 Fall | Principles of Human Nutrition | | Scientific principles of human nutrition. Emphasis on scientific literacy and the study of nutrients for disease prevention. Includes macronutrients and micronutrients, human nutrient metabolism and nutrition's role in the health of the human body throughout the life cycle. Addresses nutrition principles for prevention of nutrition-related health conditions. | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| FON241LL | 2023 Fall | Principles of Human Nutrition Laboratory | | Self-evaluative laboratory experience to complement FON241, Principles of Human Nutrition using anthropometric, biochemical, clinical, and dietary analysis. Includes the use of qualitative and quantitative methodology to determine nutritional status and evaluate methodological applications. | Prerequisites: A grade of C or better in FON241 or Corequisites: FON241. | | Occ | LAB 1.0 3.0 3.0 | T |
| FON242 | 2020 Fall | Introduction to Medical Nutrition Therapy | | Introduction to fundamental principles of medical nutrition therapy. Introduces the study of nutritional therapy of disease and evidence-based practice in prevention and nutritional management of diseases. Nutrition care | Prerequisites: A grade of C or better in BIO160 and FON241. | | | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | planning for chronic diseases is taught via a variety of methods including case studies. This course applies foundational skills in the application of the Nutrition Care Process (NCP) for diet therapy implementation and documentation. Includes strategies to promote dietary adherence and the development of educational programs for a diverse adult population. | | | | | |
| FON244AA | 2023 Fall | Food Service Management Practicum | | Classroom preparation and training, under the instruction and supervision of a registered dietitian. Application of principles, knowledge, and skills required in the delivery of nutrition services for food service management including food service operations, quantity food production, procurement, organizing and management principles, facility design and equipment, financial management, food safety and sanitation, menu planning, and marketing. | Prerequisites: A grade of C or better in (FON125, FON142AB, FON207, and FON242) and permission of Program Director. Corequisites: FON244AB. | FON244AA students must be in compliance with the Maricopa Community Colleges Allied Health Program Student Policies. | Occ | LEC 2.0 2.0 2.0 | S |
| FON244AB | 2023 Fall | Food Service Management Practicum Laboratory | | Practicum experience under the supervision of a registered dietitian. Application of principles, knowledge, and skills required in the delivery of nutrition services for food service management including food service operations, quantity food production, procurement, organizing and management principles, facility design and equipment, financial management, food safety and sanitation, menu planning, and marketing. | Prerequisites: A grade of C or better in (FON125, FON142AB, FON207, and FON242) and permission of Program Director. Corequisites: FON244AA. | FON244AB students must be in compliance with the Maricopa Community Colleges Allied Health Program Student Policies. | Occ | LAB 2.5 10.0 0.0 | C |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| FON245AA | 2020 Fall | Medical Nutrition Therapy Practicum | | Classroom preparation and training, under the instruction and supervision of a registered dietitian. Understanding of principles, knowledge, and skills required for the delivery of medical nutrition therapy. Comprehension of nutritional screening, assessment, monitoring, and evaluation for common and complex medical conditions, medical documentation, patient interviewing and counseling, and education in health promotion and disease prevention. | Prerequisites: A grade of C or better in (FON125, FON242, and HCC145AA) and (MAT092, or equivalent, or satisfactory score on district placement exam) and permission of Program Director. Corequisites: FON245AB. | FON245AA students must be in compliance with the Maricopa Community Colleges Allied Health Program Student Policies. | Occ | LEC 2.0 2.0 2.0 | S |
| FON245AB | 2020 Fall | Medical Nutrition Therapy Practicum Laboratory | | Practicum experience under the supervision of a registered dietitian. Application of principles, knowledge, and skills required for the delivery of medical nutrition therapy. Perform nutritional screening, assessment, monitoring, and evaluation for common and complex medical conditions, medical documentation, patient interviewing and counseling, and education in health promotion and disease prevention. | Prerequisites: A grade of C or better in (FON125, FON242, and HCC145AA) and (MAT092, or equivalent, or satisfactory score on district placement exam) and permission of Program Director. Corequisites: FON245AA. | FON245AB students must be in compliance with the Maricopa Community Colleges Allied Health Program Student Policies. | Occ | LAB 2.5 10.0 0.0 | C |
| FON246AA | 2020 Fall | Community Nutrition Practicum | | Classroom preparation and training, under the instruction of a registered dietitian. Understanding of principles, knowledge and skills required in the delivery of nutrition services in community-based agencies, outpatient health care settings, and social service agencies. Includes knowledge and understanding of nutrition intervention and wellness promotion for | Prerequisites: A grade of C or better in (FON125 and FON242) and permission of Program Director. Corequisites: FON246AB. | FON246AA students must be in compliance with the Maricopa Community Colleges Allied Health Program Student Policies. | Occ | LEC 2.0 2.0 2.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | individuals and groups across the lifespan, i.e. infants through geriatrics with a diversity of cultural, religious and social backgrounds. | | | | | |
| FON246AB | 2020 Fall | Community Nutrition Practicum Laboratory | | Practicum experience under the supervision of a registered dietitian. Application of principles, knowledge and skills required in the delivery of nutrition services in community-based agencies, outpatient health care settings, and social service agencies. Includes nutrition intervention and wellness promotion for individuals and groups across the lifespan, i.e. infants through geriatrics with a diversity of cultural, religious and social backgrounds. | Prerequisites: A grade of C or better in (FON125 and FON242) and permission of Program Director. Corequisites: FON246AA. | FON246AB students must be in compliance with the Maricopa Community Colleges Allied Health Program Student Policies. Competencies in the lecture (FON246AA) met prior to their application in supervised practice settings during the practicum lab (FON246AB). | Occ | LAB 2.0 10.0 0.0 | C |
| FON247 | 2016 Fall | Weight Management Science | | The comprehensive study of obesity as a disease of modern society due to multiple determinants. Use of evidence-based data and methods to assess and manage weight in various settings. Use of client-centered counseling strategies, including behavior change theories. Focus on discovering successful healthful long-term weight management strategies. | Prerequisites: A grade of C or better in FON100 or FON241 or permission of Instructor. | | Occ | LEC 3.0 3.0 3.0 | S |
| FON250 | 2023 Fall | Nutrition and Dietetic Exam Review | | This course is intended to prepare dietetic students for the national exam for the nutrition and dietetic technician, registered (NDTR) credential. An emphasis in food service and medical nutrition therapy will be reviewed to prepare students for national exam content. In addition, nutrition science | Prerequisites: Permission of Program Director. | FON250 may be repeated for a total of three (3) credit hours. Completion of 2 or more nutrition practicums recommended. FON250 should be taken the semester of graduation. | Occ | LEC 1.0 1.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | principles and community nutrition will be covered. The current NDTR study guide will be used to guide exam preparation. | | | | | |
| FON270AA | 2022 Fall | Applied Nutrition Experience for Personal Trainers and Coaches | | Applied nutrition course customized around the interests and needs of the individual student enrolled in the Nutrition Certificate for Personal Trainers and Coaches. Eighty (80) hours of designated work per credit. | Prerequisites: Completion of six (6) credits of FON courses with a grade of C or better, and permission of Department/Division Chair and/or the Program Director. | FON270AA may be repeated for a total of three (3) credit hours. | Occ | L+L 1.0 1.8 0.0 | C |
| FON298AA | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | Prerequisites: Permission of Program Director or Instructor. | Occ | | LAB 1.0 1.0 0.0 | Z |
| FON298AB | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | Prerequisites: Permission of Program Director or Instructor. | Occ | | LAB 2.0 2.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| FON298AC | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | Prerequisites: Permission of Program Director or Instructor. | | Occ | LAB 3.0 3.0 0.0 | Z |
| FOR105 | 2018 Fall | Forensic Science: Physical Evidence | | Scientific analysis and examination of physical evidence for forensic purposes. Covers fingerprints, shoe prints, tool marks, glass, soil and mineral evidence, firearms identification, paint chips, and arson and explosive evidence. Includes the history of forensic science, functions of the crime lab and criminalist career specialties | Prerequisites: None. | Course Attribute(s): General Education Designation: Natural Sciences (Quantitative) - [SQ] | Occ | LEC 4.0 3.0 3.0 LAB 0.0 3.0 3.0 | T |
| FOR106 | 2018 Fall | Forensic Science: Biological Evidence | | Scientific analysis and examination of biological evidence for forensic purposes. Covers blood, bloodstains, other biological fluids and stains, hair, DNA, toxicological evidence, controlled substances and alcohol. Includes the history of forensic science, functions of the crime lab, and criminalist career specialties | Prerequisites: None. | Course Attribute(s): General Education Designation: Natural Sciences (Quantitative) - [SQ] | Occ | LEC 4.0 3.0 3.0 LAB 0.0 3.0 3.0 | T |
| FOR275 | 2018 Fall | Forensic Anthropology | ASM275 | Survey of the role of forensic anthropologists, from the crime scene to the courtroom. Course focuses on how skeletal analysis can aid in medicolegal investigations, | Prerequisites: None. | Course Attribute(s): General Education Designation: Social and Behavioral Sciences - [SB] General Education Designation: Natural Sciences (General) - [SG] | Acad | L+L 4.0 5.0 5.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | especially by identifying aspects of the life history of unknown individuals and by reconstructing events that took place at crime scenes. Covers both the legal aspects of forensic practice and the underlying biological basis for evidence obtained from skeletal remains. Examines applications of forensic anthropology in mass disasters, human rights investigations, and the deciphering of historic cases. Lab activities designed to illustrate techniques and principles central to the discipline. | | | | | |
| FOR286 | 2023 Fall | Principles of Forensic Science | | This course examines the diverse disciplines and techniques used by forensic scientists in the major sections recognized by the American Academy of Forensic Sciences (AAFS), which include anthropology, criminalistics, digital and multimedia services, general, engineering and applied sciences, jurisprudence, odontology, pathology/biology, psychiatry, and behavioral science, questioned documents and toxicology. Students will participate in laboratory activities that demonstrate best practices and applications in these disciplines, including ethical practices and experiences in case reporting and providing expert testimony. | Prerequisites: A grade of C or better in (BIO181 or BIO181XT) and [(CHM150 or CHM151) and CHM151LL], or CHM150AA, or CHM151AA, or permission of the Instructor, or Department or Division Chair. | Occ | | LEC 4.0 4.0 4.0<br>LAB 0.0 3.0 3.0 | T |
| FRE085AA | 2001 Fall | Speedy French I | | Basic vocabulary and grammar to develop conversational skills in French | Prerequisites: None. | | Acad | LEC 1.0 1.0 1.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| FRE085AB | 2014 Fall | Speedy French II | | Intermediate vocabulary and grammar to develop conversational skills in French | Prerequisites: A grade of C or better in FRE085AA. Completion of prerequisites within the last three years is required. | | | LEC 1.0 1.0 1.0 | S |
| FRE085AC | 2014 Fall | Speedy French III | | Advanced vocabulary and grammar to develop conversational skills in French. | Prerequisites: A grade of C or better in FRE085AB. Completion of prerequisites within the last three years is required. | | | LEC 1.0 1.0 1.0 | S |
| FRE101 | 2014 Fall | Elementary French I | | Basic grammar, pronunciation and vocabulary of the French language. Includes the study of French culture, practice of listening, speaking, reading and writing skills. | Prerequisites: None. | Course Attribute(s): General Education Designation: Global Awareness - [G] Arizona Shared Unique Number SUN#: FRE 1101 | Acad | LEC 4.0 4.0 4.0 | S |
| FRE101AA | 2018 Fall | Elementary French I | | Basic grammar, pronunciation and vocabulary of the French language. Includes the study of French culture, practice of listening, speaking, reading and writing skills. | Prerequisites: None. | Course Attribute(s): General Education Designation: Global Awareness - [G] | Acad | L+L 4.0 5.0 5.0 | T |
| FRE102 | 2014 Fall | Elementary French II | | Continued study of grammar and vocabulary of the French language along with the study of French culture. Emphasis on speaking, listening, reading and writing skills. | Prerequisites: A grade of C or better in FRE101 or FRE101AA or permission of Department or Division. Completion of prerequisites within the last three years is required. | Course Attribute(s): General Education Designation: Global Awareness - [G] Arizona Shared Unique Number SUN#: FRE 1102 | Acad | LEC 4.0 4.0 4.0 | S |
| FRE102AA | 2018 Fall | Elementary French II | | Continued study of grammar and vocabulary of the French language along with the study of French culture. Emphasis on speaking, listening, reading and writing skills. | Prerequisites: A grade of C or better in FRE101 or FRE101AA or permission of Department or Division. Completion of prerequisites within the last three years is required. | Course Attribute(s): General Education Designation: Global Awareness - [G] | Acad | L+L 4.0 5.0 5.0 | T |
| FRE115 | 1994 Fall | Beginning French Conversation I | | Conversational French. Basic sentence structure, pronunciation and vocabulary necessary to develop | Prerequisites: None. | | Acad | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | speaking ability in French. Designed for students seeking speaking and listening abilities with little emphasis on grammar | | | | | |
| FRE116 | 2014 Fall | Beginning French Conversation II | | Continued development of speaking and listening skills for effective communication in French. | Prerequisites: A grade of C or better in FRE115 or permission of Department or Division. Completion of prerequisites within the last three years is required. | | | LEC 3.0 3.0 3.0 | S |
| FRE201 | 2014 Fall | Intermediate French I | | Review of essential grammar of the French language and study of French culture. Continued practice and development of reading, writing, and speaking skills. | Prerequisites: (FRE102 or FRE102AA with a grade of C or better) or two years of high school French with an average of C or better or permission of Department or Division. Completion of prerequisites within the last three years is required. | Course Attribute(s): General Education Designation: Global Awareness - [G] Arizona Shared Unique Number SUN#: FRE 2201<br>Acad | Acad | LEC 4.0 4.0 4.0 | S |
| FRE202 | 2014 Fall | Intermediate French II | | Review of grammar, continued development of French language skills, and continued study of the French culture. | Prerequisites: A grade of C or better in FRE201 or three years of high school French with an average of C or better. Completion of prerequisites within the last three years is required. | Course Attribute(s): General Education Designation: Global Awareness - [G] Arizona Shared Unique Number SUN#: FRE 2202 | Acad | LEC 4.0 4.0 4.0 | S |
| FRE225 | 2014 Fall | Intermediate French Conversation I | | Continued development of skills in conversational French for business or travel. | Prerequisites: A grade of C or better in FRE116 or permission of Department or Division. Completion of prerequisites within the last three years is required. | | | LEC 3.0 3.0 3.0 | S |
| FRE226 | 2014 Fall | Intermediate French Conversation II | | Development of intermediate level skills in conversational French for business and travel. | Prerequisites: A grade of C or better in FRE225 or permission of Department or | | | LEC 3.0 3.0 3.0 | S |



Acad

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | Division. Completion of prerequisites within the last three years is required. | | | | |
| FRE265 | 2014 Fall | Advanced French I | | In-depth exploration of a selected theme related to French culture. Involves reading selections from French literature, writing reports, and discussions in French. Emphasis on enhancing reading, writing and speaking skills. | Prerequisites: A grade of C or better in FRE202 or permission of Department or Division. Completion of prerequisites within the last three years is required. | Course Attribute(s): General Education Designation: Global Awareness - [G] General Education Designation: Humanities, Arts and Design - [HU] | Acad | LEC 3.0 3.0 3.0 | S |
| FRE266 | 2014 Fall | Advanced French II | | Continuation of FRE265, Reading selections from French literature, written reports, and discussions in French designed to further develop reading, writing and speaking skills. | Prerequisites: A grade of C or better in FRE265 or permission of Department or Division. Completion of prerequisites within the last three years is required. | | | LEC 3.0 3.0 3.0 | S |
| FRE296WA | 2023 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor. | Acad | Acad | LAB 1.0 5.0 0.0 | Z |
| FRE296WB | 2023 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to | | | LAB 2.0 10.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor. | | | | |
| FRE296WC | 2023 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor. | | Acad | LAB 3.0 15.0 0.0 | Z |
| FRE296WD | 2023 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest | | Acad | LAB 4.0 20.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | or with permission of the Instructor. | | | | |
| FRE298AA | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | Prerequisites: Permission of Program Director or Instructor. | | Acad | LAB 1.0 1.0 0.0 | Z |
| FRE298AB | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | Prerequisites: Permission of Program Director or Instructor. | | Acad | LAB 2.0 2.0 0.0 | Z |
| FRE298AC | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and | Prerequisites: Permission of Program Director or Instructor. | | Acad | LAB 3.0 3.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | | | | | |
| FSC101 | 2020 Fall | Introduction to Fire Service Selection and Entry | | Overview of the application and selection processes used by various fire departments and fire service organizations. Focus on the skills and abilities required for entry-level positions in the fire department, including oral and written communication skills, mathematical and mechanical skills, problem-solving skills, and physical agility and stamina. Elements of fire service culture and their effects on personal growth and interpersonal relationships. Major components of written application processes, requirements, preparation of resumes and their effect on employment prospects. Preparation for the interview to include communications skills, mental preparation techniques, behaviors, and the importance of the interview in the pre-employment process. | Prerequisites: None. | | Occ | L+L 4.0 5.0 5.0 | T |
| FSC102 | 2021 Spring | Fire Department Operations | | Introductory fire science course primarily designed for the fire department recruit. Includes firefighting skills, equipment, and administrative policies, fire department operations, personnel policies, and International Fire Service Accreditation Congress Practical Skills Testing. Satisfies minimum standards for certification testing set forth by the current Arizona | Prerequisites: A grade of C or better in FSC105, FSC130, and permission of Instructor. Corequisites: (FSC134 or FSC234) and FSC174. | | | L+L 11.0 19.6 19.6 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | State Training and Certifying Authority. | | | | | |
| FSC103 | 2018 Fall | Advanced Firefighter | | Comprehensive review of Fire Department Standard Operating Procedures, Evaluation of Fitness and Conditioning as they relate to fire ground skills. Emphasis on physical development and hands on activities providing participants with skills necessary to safely operate on the fire ground and at emergency scenes | Successful completion of the Fire Operations Academy Certified Firefighter I and II through Arizona Fire Marshal and current PASS on Candidate Physical Ability Test (CPAT). | | | L+L 7.0<br>10.6<br>10.6 | T |
| FSC105 | 2020 Fall | Hazardous Materials Awareness and Operations | | Basic methods of recognition and identification based upon the chemical and physical properties of hazardous materials; basic safety procedures when utilizing specific types of protective clothing and equipment; basic tactical information relating to scene management. Satisfies minimum standards for certification testing set forth by the current ProBoard and/or Arizona State Training and Certifying Authority. | Prerequisites: None. | Occ | Occ | L+L 3.0<br>3.0 3.0 | T |
| FSC106 | 1995 Fall | Introduction to Fire Protection | | History and evaluation of fire department organization. Role of the fire service in the community. Responsibilities of the fire administrator including organization, departmental functions, interdepartmental relationships, management of buildings and equipment; techniques of fire-fighting. Also includes emergency medical services and fire prevention | Prerequisites: None. | | Occ | LEC 3.0<br>3.0 3.0 | S |
| FSC108 | 1995 Fall | Fundamentals of Fire Prevention | | Fundamentals of fire prevention. Includes techniques, procedures, regulations, and enforcement. | Prerequisites: None. | | Occ | LEC 3.0<br>3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Also includes discussion of hazards in ordinary and special occupancies. Field trips and lectures from industry also included | | | | | |
| FSC109 | 2018 Fall | Emergency Response Team for Industry | | Common industrial hazards related to chemicals, gases, fire, energy sources, and spills. Emergency response procedures to control and conclude hazardous incidents | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 LAB 0.0 2.6 2.6 | T |
| FSC110 | 2020 Fall | Wildland Firefighter | | Basic-level course for individuals with little or no experience in the wildland environment. Preparation for performing as a beginning-level wildland firefighter with an organized fire department engine or hand crew. Satisfies minimum standards for certification testing set forth by the National Wildland Coordinating Group (NWCG). | Prerequisites: None. | | Occ | L+L 3.0 3.0 3.0 | T |
| FSC111 | 1998 Spring | Emergency Vehicle Driver Operator | | Emergency vehicle operators training including the problems facing operators; the personal qualities of emergency vehicle operator candidates; legal responsibilities of operators; and physical forces involved in driving an emergency vehicle. Includes hands-on training in an emergency response vehicle | Prerequisites: None. | | Occ | LEC 2.0 2.0 2.0 | S |
| FSC112PS | 2018 Fall | Public Safety Emergency Telecommunications | | In-depth coverage of established techniques and procedures for handling routine and emergency public safety telephone calls and radio (contact) communications. Nationally recognized procedures for processing 9-1-1 emergency calls, field unit safety, injury scenarios, and demonstrating positive public relations. | Prerequisites: None. | | Occ | L+L 3.0 3.0 3.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Fundamental skills and responsibilities for fire, emergency medical, and law enforcement complaint report processing as well as federal laws regarding proper processing, retention, and dissemination of security information. Definitions of terms unique to fire suppression, emergency medical, and law enforcement situations common within the public safety sector. | | | | | |
| FSC113 | 2020 Fall | Introduction to Fire Suppression | | Introduction to the characteristics and behavior of fire, fire hazard properties of ordinary materials, extinguishing agents, firefighter safety, fire suppression organization and equipment, and basic fire fighting tactics. | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 LAB 0.0 1.0 1.0 | T |
| FSC114 | 1991 Fall | Hazardous Materials First on the Scene/Awareness Level | | Designed to assist first responders involved in potential hazardous materials incident. Provides an overview of capabilities and limitations of first responders in the recognition and detection of hazardous materials, safety considerations, and pre-emergency planning | Prerequisites: None. | | Occ | LEC 0.5 0.5 0.5 | S |
| FSC115 | 2020 Fall | Community Emergency Response Team (CERT): Level I | AJS115 | Basic skills, including instruction in teamwork and disaster simulations, needed to help oneself, family, and neighbors in the event of a community disaster in accordance with the Federal Emergency Management Agency (FEMA) guidelines. | Prerequisites: None. | | Occ | LEC 1.5 1.5 1.5 | S |
| FSC117 | 1998 Fall | Fire Apparatus | | Principles of care, maintenance and operation of fire apparatus and pumps. Includes pump construction | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | and accessories, pumping techniques, power development, and transmission. Driving, troubleshooting and producing effective fire streams | | | | | |
| FSC118 | 1998 Fall | Fire Hydraulics | | Review of basic mathematics. Hydraulic laws and formulas as applied to the fire service. Application of formulas and mental calculations to hydraulic problems, water supply variables, and discharge requirements for pumpers | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| FSC119 | 2000 Spring | Introduction Fire Service Ethics | | Ethical issues, standards, and philosophical consideration of moral problems encountered in fire service. Ethical responsibility of fire service personnel and those they serve | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| FSC125 | 1989 Fall | Hazardous Materials Emergency Scene Management | | Emphasis on detection and identification of dangers associated with the release of hazardous materials. Step-by-step guide to the management of response resources for the purpose of mitigating a hazardous materials incident | Prerequisites: None. | | Occ | LEC 1.0 1.0 1.0 | S |
| FSC126 | 2018 Fall | Refresher Training for Hazardous Materials First Responder Operational | | Review of fundamentals of containment, prevention, and knowledge of basic hazard and risk assessment techniques. Topics include protective clothing, containing and controlling specific hazards, vapor suppression, and cooling of tanks. Meets the requirements of Department of Labor Part III; Occupational Safety and Health Act 29; Code of Federal Regulations Part 1910; Hazardous Wast Operational and Emergency | Prerequisites: A grade of C or better in FSC105. | Occ | | L+L 1.0 1.0 1.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Response; Final Rule March 6, 1989 governing Refresher Training. | | | | | |
| FSC127 | 1994 Summer II | Codes/Regulations and Contingency Planning for Hazardous Materials Response | | Multifaceted approach to the management of a hazardous materials accident at private public sector facility. Includes planning requirements and considerations, fixed-site pre-plan preparation. Overview of federal statutes and national codes used to establish safety, health, and environmental standards for chemical utilization. Highlights Occupational Safety and Health Administration, Department of Transportation, Environmental Protection Agency, Uniform Building Code, Uniform Fire Code, and National Fire Protection Association regulations. Application of laws, regulations, and rules by agencies enforcing legal mandates in chemical compliance, both public and private | Prerequisites: None. | | Occ | LEC 1.0 1.0 1.0 | S |
| FSC128 | 1994 Summer II | Hazardous Materials Air Monitoring/Breathing Protection | | Fundamentals of emergency air monitoring and respiratory protection used in response to hazardous materials releases. Theory and practical application. Includes use of monitoring instruments in conjunction with respiratory protection systems for tactical and risk analysis work; respiratory protection devices and their physiological effects; all state and federal laws pertaining to respiratory protection | Prerequisites: None. | | Occ | LEC 1.0 1.0 1.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| FSC129 | 1994 Summer II | Physical Properties of Hazardous Materials | | Practical application of physical properties of hazardous materials for risk and hazard analysis. Working knowledge of chemicals, exposure, and physical property nomenclature for the selection of proper decontamination methods and proper personal protective clothing and equipment | Prerequisites: None. | | Occ | LEC 1.0 1.0 1.0 | S |
| FSC130 | 2020 Fall | Fitness for Firefighters/CPAT | | Skills and abilities required for entry level position in the fire service including physical ability, and stamina. Opportunity to take the accredited International Association of Fire Fighters (IAFF) Candidate Physical Ability Test (CPAT) at the end of the course at a IAFF licensed agency. | Prerequisites: None. | FSC130 is offered as credit (P) or no credit (Z) basis. Standard grading available according to procedures outlined in catalog. | Occ | L+L 1.0 1.5 1.5 | T |
| FSC131 | 2018 Fall | Introduction to Urban Technical Rescue | | Practical application of safe rescue practices for urban technical rescue. Includes ropes and rope systems, trench rescue, confined-space rescue, swiftwater rescue, and rescue from collapsed structures | Prerequisites: None. | | Occ | L+L 3.0 3.0 3.0 | T |
| FSC132 | 1994 Summer II | Personal Protective Equipment for Emergency Spill Control at Hazardous Materials Incidents | | Fundamentals of personal protective equipment and practical application of theoretical information. Includes the design, components, interface, use, application, and materials of chemical protective clothing; thermal limitations of chemical protective clothing in flammable and toxic atmospheres; physiological and psychological effects of wearing these types of garments. Fundamentals of basic emergency spill control, | Prerequisites: None. | | Occ | LEC 1.0 1.0 1.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | identification, response teams, safety, and decontamination | | | | | |
| FSC134 | 2020 Fall | Fitness and Conditioning for Firefighters | | Overview of all aspects of fitness for current and prospective firefighters. Includes physical and mental aspects of performance for optimal achievement on fire department agility tests and fire fighting tasks; individual conditioning strategies, nutritional guidelines, protective clothing concepts, and basic exercise principles. Pre-employment, evaluation, and lifelong fitness and conditioning. | Prerequisites: None. | | Occ | L+L 3.0 4.6 4.6 | T |
| FSC136 | 2018 Fall | Women Firefighter Preparation | | Designed for women firefighter candidates. Includes firefighting techniques and procedure, physical/mental conditioning, health concerns, occupational opportunities, and mentorship programs. | Prerequisites: A grade of C or better in FSC134 or Corequisites: FSC134 or permission of Instructor. | | Occ | L+L 2.0 2.87 2.87 | T |
| FSC139 | 2020 Fall | Emergency Response to Terrorism | AJS139 | Fundamentals of emergency response to suspected terrorist events. Historical perspective of terrorist activities and methods by which responders can identify and protect themselves and the public from these threats. Coordination of responding agencies. | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| FSC146 | 2021 Fall | Disaster Recovery Operations | AJS146 | Specialized knowledge and skills for the emergency manager in developing programs and activities associated with disaster recovery assistance and mitigation actions that reduce losses from future disasters. | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| FSC147 | 2020 Fall | Emergency Preparedness | AJS147 | Emergency preparedness related to natural and manmade disasters. Planning concepts and the planning | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | process; awareness and education programs and strategies for the general community as well as business and industries. | | | | | |
| FSC148 | 2020 Fall | Fundamentals of Emergency Management | AJS148 | Emergency management systems including career opportunities, function, tasks and responsibilities of the emergency management program manager, role of the emergency manager in mitigation, preparedness, response, and recovery. Past civil defense and current emergency management systems since evolution from World War II. | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| FSC149 | 2020 Fall | Hazard Mitigation | AJS149 | Knowledge and skills required to develop programs to reduce losses from future disasters, emergencies, and other extreme events caused by natural and man-made hazards. | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| FSC152 | 1996 Fall | Engine Company Officer | | Overview of all aspects of engine company operations including the activities and responsibilities performed by the captain as well as mechanisms for developing a personal supervisory style. Designed for the aspiring company officer or anyone having the opportunity for the role of a company officer | Prerequisites: None. | | Occ | LEC 1.0 1.0 1.0 | S |
| FSC153 | 2018 Fall | Minimum Company Standards for Fire Fighters | | Comprehensive review of Standard Operating Procedures as they relate to fire ground skills. Emphasis placed on hands on activities allowing participants to practice necessary skills to safely operate on the fire ground and vehicle accident scenes | Successful completion of the Fire Operations Academy and current Candidate Physical Ability Test (CPAT). | | Occ | L+L 2.0 4.0 4.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| FSC158 | 2006 Summer I | Advanced Education for Probationary Firefighter | | Preparation to advance skill level of the probationary firefighter. Includes preparation for ambulance operations, driver's training and safety issues, fire ground operations, and fire department organizational structure. Hands-on application of skills and concepts | Prerequisites: Permission of Instructor. | | Occ | LEC 3.0 3.0 3.0 | S |
| FSC159 | 2018 Fall | Ladder Operations | | Comprehensive training for members of fire department ladder companies. Emphasis on safety, progressive skills, and equipment review. | Prerequisites: Permission of Instructor. | | Occ | L+L 1.0 1.0 1.0 | T |
| FSC160 | 2007 Spring | Advanced Driver Training Instructor Certification | | Comprehensive instructor certification course based on information and resources from the National Fire Protection Association Standard for Driver Apparatus; the Arizona Department of Transportation Standards, Commercial Drivers License Requirements; General Motors Advanced Drivers Training; National Highway Traffic and Safety Administration; and the Occupational Health and Safety Administration. Covers compensation for inertia, defensive driving skills, and collision avoidance techniques. Differences between driving passenger vehicles top-heavy or high-profile vehicles. Focuses on competency of instructor in ability to teach principles and demonstrate skills necessary to operate fire department apparatus | Prerequisites: Permission of Instructor. | | Occ | LEC 1.2 1.2 1.2 | S |
| FSC161 | 2007 Spring | Advanced Driver Training Instructor Re-Certification | | Comprehensive recertification for all previously certified | Prerequisites: Permission of Instructor. | | Occ | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Advanced Driver Training (ADT) instructors. Focuses on safety, review of driving skills, comprehension of course dialogue, and instructor presentation skills based on standards established by National Fire Protection Association (1002-Standard for Driver Apparatus); Arizona Department of Transportation, Commercial Drivers License (CDL); General Motors Advanced Driver Training; National Highway Traffic and Safety Administration; and the Occupational Health and Safety Administration | | | | | |
| FSC162 | 2007 Spring | Utility Truck Operation | | Comprehensive review of skills, responsibilities, apparatus familiarization, mechanical and technical aptitudes, and fire department standard operating procedures specific to safe and effective operation of utility trucks. Focuses on practical application of classroom instruction to insure competency of engineers in performing all utility truck/scene support operator responsibilities | Prerequisites: Permission of Instructor. | | Occ | LEC 1.0 1.0 1.0 | S |
| FSC163 | 2007 Spring | Respiratory Protection Refresher | | Use of respiratory protection, including regulations, hazard recognition, limitations of respirators, maintenance requirements, and importance of annual fit testing. Complies with 29CFR (Code of Federal Regulations) 1910.134 Occupational Safety and Health Administration (OSHA) Regulation for Respiratory Protection refresher training | Prerequisites: Permission of Instructor. | | Occ | LEC 1.0 1.0 1.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| FSC167 | 2020 Fall | Fire Captain Academy | | Roles and responsibilities of a company officer within the fire department system with emphasis on practical application and preparation for the role of company officer in a move-up or out-of-class status. Emphasis on customer service, safety, crew development, discipline, community involvement, and specific engine and ladder company officer functions. Includes fire and emergency medical simulations. | Prerequisites: Permission of Instructor. | | Occ | LEC 6.0 3.0 3.0 LAB 0.0 3.0 3.0 | T |
| FSC174 | 2020 Fall | Functions of Command | | Basic functions of command in the fire service. Includes brief history and future trends of incident command. Analysis of recent local, national, and international tactical and strategic concerns. Utilizes a Command Training Center to provide real-time, computer- and prop-enhanced simulations. | Prerequisites: Permission of Instructor. Corequisites: FSC102. | | | L+L 2.0 3.0 3.0 | T |
| FSC175 | 2018 Fall | Fireground Survival | | On-deck procedures, focusing on implementation, tasks and responsibilities, logistics, and their impact on tactics, strategy, and scene safety. Assignment of Rapid Intervention Company (RIC) responsibilities to the on-deck company. Fireground survival skills | Prerequisites: Permission of Instructor. | Occ | Occ | L+L 0.5 0.7 0.7 | T |
| FSC200 | 2014 Spring | Fire Service Instructor- Level I | | Designed to prepare students for Level I Training Officer as defined by the National Fire Protection Association (NFPA) 1041 standards. Includes methods of delivering instructional materials, preparation of lesson plans, instructional aids and evaluation instruments; | Prerequisites: None. | FSC200 is intended for Firefighters seeking to become Instructors or Training Officers. | Occ | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | techniques and strategies for organizing the learning environment and management of recordkeeping are also included. | | | | | |
| FSC201 | 2014 Spring | Fire Service Instructor- Level II | | Designed to prepare students for Level II Training Officer as defined by the National Fire Protection Association (NFPA) 1041 standards. Continued knowledge and skills in methods of delivering instructional materials, preparation of lesson plans, instructional aids and evaluation instruments; techniques and strategies for organizing the learning environment and management of recordkeeping are also included. | Prerequisites: A grade of C or better in FSC200 or permission of Program Director or Instructor. | FSC201 is intended for Firefighters seeking to become Instructors or Training Officers. | Occ | LEC 3.0 3.0 3.0 | S |
| FSC202 | 1998 Fall | Supervisory Training for Firefighters | | Administrative methods applied to the fire service, departmental organization, and personnel management. Includes fire alarm signaling systems, fire service planning, and relationships with other city departments | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| FSC204 | 2020 Fall | Firefighting Tactics and Strategy | | Methods of coordinating personnel, equipment, and apparatus on the fireground. Practical methods of controlling and extinguishing structural and other types of fires. Includes simulation exercises. | Prerequisites: A grade of C or better in FSC113 or permission of Instructor or current employment as a firefighter and/or Firefighter I and II Certification and/or related experience as determined by the Program Director. | | | LEC 3.0 3.0 3.0 | S |
| FSC205 | 1989 Fall | Command Strategies for Major Emergencies | | Effective methods of managing major emergency incidents including multiple alarm structural fires, high rise fires, major brush fires, complex hazardous materials | Prerequisites: A grade of C or better in FSC204. | Occ | | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | incidents and multi-casualty medical incidents. Includes incidents that require the commitment of resources based on a transitional situation and/or managing the effective interaction between numerous agencies to achieve control | | | | | |
| FSC208 | 2020 Fall | Firefighter Safety and Building Construction | | Actions necessary to provide for the safety of firefighters operating on the fireground. Effects that fire and heat may have on various types of building construction resulting in the loss of structural integrity. Includes signs and symptoms of structural damage. | Prerequisites: A grade of C or better in FSC113 or permission of Instructor or current employment as a firefighter and/or Firefighter I and II Certification and/or related experience as determined by the Program Director. | | | LEC 3.0 3.0 3.0 | S |
| FSC209 | 2011 Summer I | Fire Investigation I | | Methods of determining point of fire origin, path of fire travel, and fire cause. Includes recognizing and preserving evidence; interviewing witnesses; arson laws and types of arson fires; and court testimony, reports, and records. | Prerequisites: None. | Occ | Occ | LEC 3.0 3.0 3.0 | S |
| FSC209LL | 2018 Fall | Fire Investigation I Lab | | Practical application of fire investigation techniques. Includes use of the scientific method to investigate various types of fires as well as fire patterns, explosions and evidence documentation. Also covers scene management and examination procedures in addition to report writing and spoliation concerns. | Prerequisites: A grade of C or better in FSC209. | | | LAB 1.0 2.0 2.0 | T |
| FSC210 | 2018 Fall | Fire Investigation II | | Focus on practical skills for fire investigators. Emphasis on hands-on application with practice examining and recording the fire/arson scene. | Prerequisites: A grade of C or better in FSC209 or permission of Instructor. | Occ | Occ | L+L 3.0 3.0 3.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Includes class room and field exercises on each section. | | | | | |
| FSC211 | 2018 Fall | Fire Investigation III | | Focus on case building for fire investigators. Emphasis on hands-on application, practice examining and recording the fire/arson scene. Includes field exercises with arson task force to investigate a crime scene. | Prerequisites: A grade of C or better in FSC210 or permission of Instructor. | | Occ | L+L 3.0 3.0 3.0 | T |
| FSC212 | 2018 Fall | Fire Investigation IV | | Skills and information for those responsible for fire investigation. Focus on courtroom and testimony. Includes continuing arson task force team assignment. | Prerequisites: A grade of C or better in FSC211 or permission of Instructor. | | Occ | L+L 3.0 3.0 3.0 | T |
| FSC213 | 1998 Fall | Hazard Categorization (HAZ CAT) | | Fundamentals of basic chemical identification for field application. Includes demonstration of sampling techniques, safety, key charts, test descriptions and use, and flow charts for tactical application at hazardous materials incidents | Prerequisites: None. | | Occ | LEC 1.0 1.0 1.0 | S |
| FSC214 | 1998 Fall | Human Resource Management in Fire Service | | Management of fire service personnel functions. Includes selection procedures, employee discipline, performance ratings, elements of supervision. Labor relations and related personnel responsibilities | Prerequisites: A grade of C or better in FSC202 or four years in the fire service. | | | LEC 3.0 3.0 3.0 | S |
| FSC215 | 2000 Fall | Customer Service in the Public Sector | | Examines the personal and practical skills needed to enhance customer service in the public sector with an emphasis on application, basic management requirements, and training | Prerequisites: None. | Occ | Occ | LEC 3.0 3.0 3.0 | S |
| FSC216 | 2011 Summer I | Fundamentals of Flammable Hazardous Materials | | Fundamentals of chemistry used in fire service, chemistry of flammable hazardous materials, containers used to store and transport flammable hazardous materials, and | Prerequisites: A grade of C or better in FSC105. | | | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | equipment and materials used in controlling emergencies involving flammables. Also includes tactics for hazardous materials emergencies, and laws at federal, state, and local levels pertaining to the use, storage, and transportation of hazardous materials and hazardous wastes. | | | | | |
| FSC217 | 2011 Summer I | Dangerous and Explosive Hazardous Materials | | The chemistry of reactive and unstable hazardous materials, the toxicology of dangerous chemicals, and the measures taken to protect responders, the community, and the environment of chemical accidents. Also includes an introduction to field sampling of unknown substances. | Prerequisites: A grade of C or better in FSC216. | | | LEC 3.0 3.0 3.0 | S |
| FSC220 | 2020 Fall | Fire Officer | | Administrative methods applied to the fire service, departmental organization, and personnel management. Includes Incident Management System, fire service planning, and relationships with other agency departments. | Prerequisites: Full time Certified Fire Fighter I & II, or Fire Instructor I, or permission of Instructor. | Occ | Occ | L+L 5.0 6.0 6.0 | T |
| FSC221 | 1998 Fall | Ladder Company Officer | | Overview of all aspects of ladder company operations including activities, expectations, and responsibilities required of the ladder captain. Designed for the company officer who aspires to the role of ladder company officer | Prerequisites: None. | | Occ | LEC 1.0 1.0 1.0 | S |
| FSC224 | 2009 Spring | Incident Command Systems | | Methods for managing emergency incidents including command, control and coordination of response to all types of incidents, including hazardous materials, natural hazards, fire and multiple | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | causality incidents. Emphasis on stabilization and protecting life, property, and environment | | | | | |
| FSC225 | 2018 Fall | Hazard Zone Command | | Provides the knowledge, skills and abilities for incident commanders to manage local, National Incident Management System (NIMS) Type 4 and 5 incidents. Prepares Fire Service Company and Command Officers to standardize local incident operations across their organization. The Hazard Zone Command course includes theory and simulation-based case studies. After successful completion of the course, the student will receive Blue Card certification for a period of three (3) years. | Prerequisites: Firefighter 1 and 2 certification and (a minimum of 5 years of fire service field experience or permission of Instructor). | 80 hours of online and in person coursework is minimally required for this course. | Occ | L+L 5.0 6.0 6.0 | T |
| FSC226 | 2006 Spring | Incident Safety Officer | | Comprehensive review of the critical factors that threaten the safety and well being of operating firefighting crews with an emphasis on the role an Incident Safety Officer has in recognizing, minimizing and mitigating threats. Focus on the Principles and types of construction, building dating, Smoke and Fire size-up, unique building types and standard company operations within Incident Management System providing the framework for effective Incident Safety Officer actions and overall impact on fire ground safety. Safety of Fire companies operating on every other type of incident in which a Command Structure is established, focus on the | Rank of Fire Captain or Chief Officer. | | Occ | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | scope of an Incident Safety Officer | | | | | |
| FSC230 | 2010 Spring | Fire Officer Leadership II | | Management techniques which develop leadership and leadership effectiveness. Written and verbal communication skills, fire service excellence goals, counseling and problem solving methods. Role-playing and case studies emphasized throughout | Prerequisites: Permission of Instructor. | | Occ | LEC 3.0 3.0 3.0 | S |
| FSC231 | 2018 Fall | Battalion Chief Academy | | Examine the many roles and responsibilities required of a chief officer. Manage emergency incidents, explore personal and professional growth, view department issues more globally, manage personnel more effectively, manage conflict resolution for positive outcomes, and define leadership. | Prerequisites: None. FSC202 and FSC204 are suggested but not required. | | | L+L 3.0 5.0 5.0 | T |
| FSC234 | 2020 Fall | Fitness and Wellness for Firefighter Candidates | | Focus on fitness and wellness for firefighter candidates. | Prerequisites: Permission of Instructor. | | Occ | L+L 3.0 4.6 4.6 | T |
| FSC238 | 2004 Fall | Vehicular Extrication and Patient Stabilization | EMT238 | Participative course designed for the Emergency Medical Technicians (EMT). Incorporates new knowledge and skills necessary to access, extricate, and care for victims of crash incidents. Provides exposure to scene management, including size-up, disentanglement, victim stabilization for single and multi-victim situations, hazardous materials incidents, integration of local emergency medical services (EMS) for patient assessment and management, and standard operating procedures to selected victim scenarios | Basic EMT certification current enrollment in an EMT-Basic program nurse with emergency department experience or law enforcement personnel or permission of Instructor. | Occ | Occ | LEC 2.0 2.0 2.0 | S |
| FSC240 | 2018 Fall | Incident Command Officer | | Preparation of Incident Command officers in handling | Chief Officer or permission of Instructor. | | Occ | L+L 3.0 3.0 3.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | local community's emergency situations | | | | | |
| FSC258 | 2023 Fall | Victimology and Crisis Management in Public Safety | AJS/EMT258 | Victimology, the criminal justice system, techniques of crisis intervention and management, and the importance of a multicultural and global perspective. Includes violent crimes, sexual assault, family violence, post-traumatic stress disorder, the role of substance abuse, developing effective coping skills of victims and responders, appropriate community resources, and the cultural responsiveness of the justice system. | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| FSC259 | 2018 Fall | Advanced Ladder Operations | | Comprehensive training for members of fire department ladder companies. Emphasis on application of techniques, incorporating safety, progressive skills, and equipment review. | Prerequisites: Permission of Instructor. | | Occ | L+L 8.0 8.5 8.5 | T |
| FSC260 | 2018 Fall | Technical Rope Rescue (RR) 1, 2, 3 | | Concepts, techniques, and skills needed to support technical rope rescue. Meets Arizona Fire Marshal Office requirements for RR1, RR2, RR3 and National Fire Protection Association (NFPA) 1670 Operational Rope Rescue | Prerequisites: A grade of C or better in FSC131 or permission of Instructor. | | Occ | L+L 3.0 3.6 3.6 | T |
| FSC261 | 2018 Fall | National Fire Protection Agency Rope Technician | | Advanced anchor construction, use of elevated anchor points on difficult edges, horizontal rope systems, and study of force multipliers commonly experienced during high angle rope rescue. Meets the certification requirements for the NFPA (National Fire Protection Agency) 1670 for Operational Rope Rescue and | Prerequisites: A grade of C or better in FSC260 or (the Office of the Arizona State Fire Marshalxxs Ropes 1 2 and 3 class) or permission of Instructor. | | Occ | L+L 3.0 3.6 3.6 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | NFPA 1006 for Technical Rescue Rope Technician. | | | | | |
| FSC271 | 2012 Spring | Aircraft Rescue Fire Fighter (ARFF)-Basic | | Basic level course for aircraft rescue firefighters. Preparation for performing standard aircraft rescue and firefighting procedures, including roles and responsibilities, basic airport configuration and design, aircraft types, hazardous cargo, safety precautions and use of materials. | Prerequisites: Permission of Program Director. | | | LEC 3.0 3.0 3.0 | S |
| FSC272 | 2018 Fall | Aircraft Rescue Fire Fighter (ARFF) - Advanced | | Advanced level course for certification of aircraft rescue firefighters. Integrating, performing and evaluation of standard firefighting skills for airport configuration and design, aircraft types, hazardous cargo, safety procedures and materials used. | Prerequisites: A grade of C or better in FSC271. | Occ | | L+L 3.0 4.0 4.0 | T |
| FSC273 | 2018 Fall | Aircraft Rescue Fire Fighter (ARFF)-Driver | | Driver training course for aircraft rescue firefighters. Preparation for performing standard driving procedures for aircraft rescue and firefighting. Includes but not limited to proper handling of apparatus, equipment and tools used in aircraft rescues and communication with tower and other response units. | Prerequisites: A grade of C or better in (FSC272 or current employment as an airport firefighter) and permission of Instructor. | Current employment is in accordance with the national Fire Protection Association ($_{O}N_{c}F_{c}PA$) Standard 1003. | Occ | L+L 2.0 2.5 2.5 | T |
| FSC274 | 2013 Summer I | Aircraft Rescue Fire Fighter (ARFF) - Incident Command | | Incident command certification of aircraft rescue firefighter performing and evaluating standard firefighting skills for airport firefighters. Includes but not limited to aircraft types, hazardous cargo, and safety procedures and materials. | Prerequisites: A grade of C or better in FSC273 or permission of Program Director. | | Occ | LEC 3.0 4.0 3.7 | S |
| FSC275 | 2018 Fall | Aircraft Rescue Fire Fighter (ARFF) Certification Renewal | | Designed to provide recertification for the performance of standard | Prerequisites: A grade of C or better in (FSC272 or current | Current employment is in accordance with the National | Occ | L+L 3.0 4.0 4.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | aircraft rescue and firefighting procedures and skills for airport firefighters. Includes but not limited to airport configuration and design, aircraft types, hazardous cargo, safety procedures and materials used. | employment as an airport firefighter) and permission of Instructor. | Fire Protection Association (NFPA) Standard 1003. | | | |
| FSC276 | 2021 Summer | Terrorism Liaison | AJS276 | Provides knowledge and skills required for the Terrorism Liaison Officer (TLO) role to coordinate and communicate with various fire, police, and military agencies in managing threat vulnerability and other emergency disasters. | Prerequisites: Permission of Program Director. | AJS/FSC276 is not open to the public. | Occ | L+L 4.0 4.0 4.0 | T |
| FSC277 | 2021 Summer | Threat Vulnerability Assessment | AJS277 | Provides a historical perspective of threats and the activities and methods used by first responders to identify and mitigate future threats. Introduces and examines threat vulnerability of critical infrastructure within jurisdictions. Provides assessment techniques for responding agencies. | Prerequisites: Permission of Program Director. | AJS/FSC277 is not open to the public. | Occ | L+L 1.0 1.0 1.0 | T |
| FSC278 | 2021 Fall | Hostile Intent and Intervention Training | AJS278 | Provides knowledge and skills required to detect and anticipate terrorist activities as a member of a Hostile Intent and Intervention Team (HIIT). | Prerequisites: Permission of Program Director. | AJS/FSC278 is not open to the public. | Occ | L+L 2.0 2.0 2.0 | T |
| FSC279 | 2021 Fall | Field Intelligence Team Training | AJS279 | Provides knowledge and skills required for situational awareness of suspicious activities and the deployment of first responders for mitigation and investigation for the Field Intelligence Team (FIT). | Prerequisites: Permission of Program Director. | AJS/FSC279 is not open to the public. | Occ | L+L 3.0 3.0 3.0 | T |
| FSC280 | 2022 Spring | Terrorism Hazmat First Responder Training | AJS280 | Provides knowledge and skills to understand the chemistry of reactive and unstable hazardous materials, the toxicology of dangerous chemicals, and the measures | Prerequisites: Permission of Program Director. | AJS/FSC280 is not open to the public. | Occ | L+L 4.0 4.0 4.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | taken to protect the safety of responders, the community, and the environment of chemical accidents. Also includes an introduction to field sampling of unknown substances for the Field Intelligence Team (FIT) and the Hostile Intent and Intervention Team (HIIT). | | | | | |
| FSC282AA | 2014 Summer | Service-Learning Experience in Fire Science | | Unpaid Service-Learning (SL) experience, completed with approved community partner. | Prerequisites: Permission of Instructor. | FSC282AA may be repeated for a total of six (6) credit hours. Standard grading available according to procedures outlined in catalog. | Occ | LAB 1.0 1.0 0.0 | L |
| FSC282AB | 2014 Summer | Service-Learning Experience in Fire Science | | Unpaid Service-Learning (SL) experience, completed with approved community partner. | Prerequisites: Permission of Instructor. | FSC282AB may be repeated for a total of six (6) credit hours. Standard grading available according to procedures outlined in catalog. | Occ | LAB 2.0 2.0 0.0 | L |
| FSC282AC | 2014 Summer | Service-Learning Experience in Fire Science | | Unpaid Service-Learning (SL) experience, completed with approved community partner. | Prerequisites: Permission of Instructor. | FSC282AC may be repeated for a total of six (6) credit hours. Standard grading available according to procedures outlined in catalog. | Occ | LAB 3.0 3.0 0.0 | L |
| FSC290AA | 2009 Spring | Arson Investigation | | Investigative techniques used in analyzing suspected arson scenes, motives, and collection of physical evidence | Prerequisites: None. | | Occ | LEC 1.0 1.0 1.0 | S |
| FSC296WA | 2002 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or | Occ | | LAB 1.0 5.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | career interest or with permission of Instructor. | | | | |
| FSC296WB | 2002 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor. | | Occ | LAB 2.0 10.0 0.0 | Z |
| FSC296WC | 2002 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor. | | Occ | LAB 3.0 15.0 0.0 | Z |
| FSC296WD | 2002 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or | | Occ | LAB 4.0 20.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor. | | | | |
| FSC298AA | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | Prerequisites: Permission of Program Director or Instructor. | Occ | | LAB 1.0 1.0 0.0 | Z |
| FSC298AB | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | Prerequisites: Permission of Program Director or Instructor. | Occ | | LAB 2.0 2.0 0.0 | Z |
| FSC298AC | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of | Prerequisites: Permission of Program Director or Instructor. | | | LAB 3.0 3.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | | | | | |
| FST175 | 2020 Fall | Food Science Product Development I | | A study of food production with hands-on experience in all aspects of developing, producing, and marketing food products for food science majors. | Prerequisites: None. | | Acad | LEC 3.0 3.0 3.0 | S |
| FST263 | 2020 Fall | Principles of Food Science | | The study of scientific principles involved in the development, production, and evaluation of food. | Prerequisites: None. | | Acad | L+L 4.0 4.0 4.0 | T |
| FST264 | 2020 Fall | Protein Science | | The study of natural and synthetic proteins in food science with a focus on meat. | Prerequisites: A grade of C or better in FST263. | | | L+L 4.0 4.0 4.0 | T |
| FST265 | 2020 Fall | Microbiology of Foods | | The study of microorganisms and their relationship to food development, production, processing, and preservation. | Prerequisites: A grade of C or better in (BIO156 or BIO156XT or BIO181 or BIO181XT or FST263) and (CHM130 or higher). | | | L+L 4.0 4.0 4.0 | T |
| FST266 | 2023 Fall | Fermentation in Food Science | | A study of the biochemical principles and processes of fermentation in food science. | Prerequisites: A grade of C or better in (BIO156 or BIO156XT or BIO181 or BIO181XT or FST263) and (CHM230 or CHM230AA or CHM235 or CHM235AA). | Acad<br><br>Acad | | LEC 4.0 4.0 4.0 | S |
| FST267 | 2020 Fall | Analysis of Food | | A study of biochemical analysis of foods used in product development, evaluation, and quality control. | Prerequisites: A grade of C or better in (BIO156 or BIO156XT or BIO181 or BIO181XT or FST263) and (CHM130 or higher). | Acad | | L+L 4.0 4.0 4.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| FST275 | 2020 Fall | Food Science Product Development II | | Advanced study of food production and analysis of quality, safety, efficiency and cost through hands-on experience in developing, producing and marketing food products. | Prerequisites: None. | | Acad | LEC 3.0 3.0 3.0 | S |
| FST298AA | 2020 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. | Prerequisites: Permission of Program Director or Instructor. | | Acad | LAB 1.0 1.0 0.0 | Z |
| FST298AB | 2020 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. | Prerequisites: Permission of Program Director or Instructor. | | Acad | LAB 2.0 2.0 0.0 | Z |
| FST298AC | 2020 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment | Prerequisites: Permission of Program Director or Instructor. | | Acad | LAB 3.0 3.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. | | | | | |
| FYE101 | 2022 Fall | Introduction to College, Career and Personal Success | | Focus on student success through exploration of academic, career and life skills. Includes study of goal-setting/success strategies, academic mindset and financial literacy. Develop an education/career plan utilizing career assessments and other college resources. | Prerequisites: None. | | Acad | LEC 1.0 1.0 1.0 | S |
| FYE103 | 2022 Fall | Exploration of College, Career and Personal Success | | Focus on student success through exploration of academic, career, and life skills. Includes study of goal-setting/success strategies, academic mindset, interpersonal skills, financial literacy, self-care strategies, diverse perspectives, and campus tools and resources. Develop an education/career plan utilizing career assessments and other college resources. | Prerequisites: None. | | Acad | LEC 3.0 3.0 3.0 | S |
| GBS103 | 1995 Fall | Principles of Banking | | History, characteristics and significance of American banking system, includes types of accounts, banking services and the relationship of commercial banks to their depositors | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| GBS109 | 2022 Spring | Introduction to Esports Management | | Introduction to Esports will introduce the business, economics, operations and marketing of the Esports industry. Historical and cultural implications will be examined from the early days of competitive video gaming, to today's billion dollar | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | industry. Global awareness and diverse cultural viewpoints and trends will be studied as they relate to the Esports industry. This course will introduce students to the numerous business opportunities to work and grow in the dynamic Esports industry. | | | | | |
| GBS110 | 1995 Fall | Human Relations in Business and Industry | | Exploration of fundamental theories and concepts of human relations in business and industry. Particular emphasis is placed on developing effective interpersonal relationships and leadership skills within an organization | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| GBS120 | 2018 Fall | Workplace Communication Skills | | Reviews planning, organization, development, and evaluation of written and oral communication in business settings, including informative and persuasive messages. | Prerequisites: None. | | Occ | L+L 3.0 3.0 3.0 | T |
| GBS126 | 2023 Fall | Writing Resumes | | Planning, organizing, and writing a professional resume. Focus on presentation skills including format and language | Prerequisites: None. | | Occ | L+L 1.0 1.7 1.7 | T |
| GBS131 | 1995 Fall | Business Calculations | | Review of basic arithmetic and application of mathematics to business problems, includes percentage, interest, discount, and markups | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| GBS132 | 2023 Fall | Personal and Family Financial Security | | Principles and practices of personal and family financial planning, includes savings, budgeting, credit, buying versus renting, and general principles of consumerism. | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| GBS151 | 1991 Fall | Introduction to Business | | Characteristics and activities of current local, national, and international business. An overview of economics, | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | marketing, management and finance | | | | | |
| GBS175 | 1993 Spring | Professional Development | | Examines personal qualities and professional skills needed to find a good job. Explores techniques required to build a successful career | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| GBS205 | 2016 Summer | Legal, Ethical, and Regulatory Issues in Business | | Legal theories, ethical issues and regulatory climate affecting business policies and decisions. | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| GBS206 | 2007 Summer II | Business Law (UCC) | | Legal and ethical aspects of contracts, sales, commercial paper, secured transactions, documents of title, letter of credit, bank deposits, and collections | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| GBS207 | 2007 Summer II | Business Law (General Corporate) | | Legal and ethical aspects of agency, partnerships, corporations, bankruptcy, antitrust, securities, and other regulations of business | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| GBS211 | 2018 Fall | Legal, Ethical and Regulatory Issues of the Internet Studies | | Legal, ethical and regulatory issues of the Internet environment, including personal, commercial and business electronic transactions in cyberspace. | Prerequisites: None. | | Occ | L+L 3.0 4.0 4.0 | T |
| GBS220 | 2016 Summer | Quantitative Methods in Business | | Business applications of quantitative optimization methods in operations management decisions. | Prerequisites: A grade of C or better in (MAT150 or MAT151 or MAT152) or satisfactory score on the District math placement test. | | | LEC 3.0 3.0 3.0 | S |
| GBS221 | 2019 Summer | Business Statistics | | Business applications of descriptive and inferential statistics, measurement of relationships, and statistical process management. Includes the use of spreadsheet software for business statistical analysis. | Prerequisites: A grade of C or better in GBS220 or MAT217 or MAT218. | Course Attribute(s): General Education Designation: Computer/Statistics/Quantitative Applications - [CS] Arizona Shared Unique Number SUN#: BUS 2201<br><br>Occ | Occ | LEC 3.0 3.0 3.0 | S |
| GBS233 | 1998 Fall | Business Communication | | Internal and external business communications, including verbal and nonverbal techniques | Prerequisites: A grade of C or better in ENG101 or ENG107 with grade of C or better | Course Attribute(s): General Education Designation: Literacy and Critical Inquiry - [L] | Occ | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | or permission of Department or Division. | | | | |
| GBS261 | 2021 Spring | Investments I | | Evaluation of various investment forms including study of inflation, taxation, government securities, stocks and bonds, real estate and retirement plans. Securities industry knowledge and skills for individuals to prepare for careers in Financial Services. Includes capital markets, types of products and their risks, trading, customer accounts, prohibited activities, and regulatory agencies and their functions. Helps to prepare students for the Financial Industry Regulatory Authority (FINRA) Securities Industry Essentials (SIE) Examination required for entry-level positions in the security industry. | Prerequisites: None. Corequisites: Concurrent enrollment in GBS261LL recommended but not required. | Students interested in taking the Financial Industry Regulatory Authority (FINRA) Securities Industry Essentials (SIE) Examination should also enroll in the GBS261LL Securities Industry Essentials (SIE) Exam Prep course. | Occ | LEC 3.0 3.0 3.0 | S |
| GBS261LL | 2021 Spring | Securities Industry Essentials (SIE) Exam Prep | | Helps to prepare students for the Financial Industry Regulatory Authority (FINRA) Securities Industry Essentials (SIE) Examination required for prospective securities industry professionals. Focuses on reviewing key concepts, practicing skills, and preparing to successfully demonstrate existing knowledge on the SIE certification exam. The course is designed to provide an overview of exam topics and study and test-taking strategies. It also will include structured study time, group discussions, and the use of practice exams to assess test readiness. | Prerequisites: None. Corequisites: Concurrent enrollment in GBS261 recommended but not required. | GBS261 is recommended for students who are not already employed in the financial services industry and need more in-depth content related to the SIE exam. | Occ | L+L 1.0 1.0 1.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| GBS270AA | 1999 Spring | Business Internship | | General business work experience in a business or industry. Eighty hours of designated work per credit per semester. Maximum of 3 credits allowed | Prerequisites: Permission of Department or Division. | | | LAB 1.0 1.0 0.0 | C |
| GBS270AB | 1999 Spring | Business Internship | | General business work experience in a business or industry. Eighty hours of designated work per credit totaling 160 hours per semester. Maximum of 3 credits allowed | Prerequisites: Permission of Department or Division. | | | LAB 2.0 2.0 0.0 | C |
| GBS270AC | 2013 Spring | Business Internship | | General business work experience in a business or industry. Eighty hours of designated work per credit. | Prerequisites: Permission of Department or Division. | GBS270AC may be repeated for a total of six (6) credits. | Occ | LAB 3.0 3.0 0.0 | C |
| GBS282AA | 2016 Summer | Volunteerism General Business: Service Learning Experience | | Service learning field experience within private/public agencies, educational institution, and citizen volunteer groups. | Prerequisites: A grade of C or better in GBS151 and permission of Instructor. | GBS282AA may be repeated for a total of six (6) GBS282 credit hours. Standard grading available according to procedures outlined in catalog. | Occ | LAB 1.0 1.0 0.0 | L |
| GBS294 | 2003 Fall | Consumer Credit | | Consumer lending by financial institutions | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| GBS296WA | 2002 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor. | | Occ | LAB 1.0 5.0 0.0 | Z |
| GBS296WB | 2002 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 | | | LAB 2.0 10.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | related to the career objectives of the students. COMMON COMPETENCY COURSE | grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor. | | | | |
| GBS296WC | 2002 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor. | | Occ | LAB 3.0 15.0 0.0 | Z |
| GBS296WD | 2002 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one | Occ | | LAB 4.0 20.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | class which is related to students major or career interest or with permission of Instructor. | | | | |
| GBS298AA | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | Prerequisites: Permission of Program Director or Instructor. | Occ | | LAB 1.0 1.0 0.0 | Z |
| GBS298AB | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | Prerequisites: Permission of Program Director or Instructor. | Occ | | LAB 2.0 2.0 0.0 | Z |
| GBS298AC | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. | Prerequisites: Permission of Program Director or Instructor. | | | LAB 3.0 3.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | | | | | |
| GCU102 | 1997 Fall | Introduction to Human Geography | | Systematic study of human use of the earth. Spatial organization of economic, social, political, and perceptual environments | Prerequisites: None. | Course Attribute(s): General Education Designation: Global Awareness - [G] General Education Designation: Social and Behavioral Sciences - [SB] | Acad | LEC 3.0 3.0 3.0 | S |
| GCU113 | 2016 Fall | United States and Arizona Social Studies | POS113 | Overview of government, history, and geography of the United States and Arizona. Includes the relationship of government to the United States economic system as well as the influences and developments that have shaped U.S. and Arizona history. Also covers geographical systems, regions, and study techniques. | Prerequisites: None. | | Acad | LEC 3.0 3.0 3.0 | S |
| GCU120 | 1995 Fall | Arizona's Water Issues | | History and development of Arizona's arid-land water use: sources, distribution, methods of use, floods, droughts, water law and environmental concerns | Prerequisites: None. | | Acad | LEC 1.0 1.0 1.0 | S |
| GCU121 | 2014 Spring | World Geography I: Eastern Hemisphere | | Description and analysis of spatial variations in culture, social, economic, and political phenomena in major world regions. Emphasis on the major cultural realms of Europe, North Africa, and Asia. | Prerequisites: None. | Course Attribute(s): General Education Designation: Global Awareness - [G] General Education Designation: Social and Behavioral Sciences - [SB] | Acad | LEC 3.0 3.0 3.0 | S |
| GCU122 | 1995 Fall | World Geography II: Western Hemisphere | | Description and analysis of variations in social, economic, and political phenomena in major world regions. Emphasis on Sub-Saharan Africa, Latin America, and Anglo America | Prerequisites: None. | Course Attribute(s): General Education Designation: Global Awareness - [G] General Education Designation: Social and Behavioral Sciences - [SB] | Acad | LEC 3.0 3.0 3.0 | S |
| GCU141 | 1997 Fall | Introduction to Economic Geography | | Production, distribution and consumption of various types | Prerequisites: None. | Course Attribute(s): General Education Designation: Global | Acad | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | of commodities of the world and relationships to the activities of man | | Awareness - [G] General Education Designation: Social and Behavioral Sciences - [SB] | | | |
| GCU194 | 1999 Spring | Special Topics in Cultural Geography | | Detailed study of specific regions, topics, or current issues in cultural geography. Topics may include origins, diffusion, and division of cultural areas. Examines cultural patterns and spatial organization which may include population, religion, economic, social and political characteristics. Studies interrelationships between humans and the physical environment (i.e. environmental ecosystems, physical processes and natural resources). | Prerequisites: None. | GCU194 may use field trips as a mandatory component. | Acad | LEC 3.0 3.0 3.0 | S |
| GCU221 | 1999 Fall | Arizona Geography | | The historical to modern development of Arizona. The interplay between the physical, cultural and economic factors affecting Arizona today | Prerequisites: None. | Course Attribute(s): General Education Designation: Cultural Diversity - [C] General Education Designation: Historical Awareness - [H] General Education Designation: Social and Behavioral Sciences - [SB] | Acad | LEC 3.0 3.0 3.0 | S |
| GCU223 | 2012 Summer I | Geography of Latin America | | Spatial overview of the physical, historical, social, and economic characteristics of South, Middle, and Caribbean America. | Prerequisites: None. | | Acad | LEC 3.0 3.0 3.0 | S |
| GCU282AA | 2023 Fall | Service-Learning Experience in Cultural Geography | | Unpaid Service-Learning (SL) experience, completed with approved community partner. | Prerequisites: Permission of Instructor. | GCU282AA may be repeated for a total of six (6) credit hours. Standard grading available according to procedures outlined in catalog. | Acad | LAB 1.0 1.0 0.0 | L |
| GCU282AB | 2023 Fall | Service-Learning Experience in Cultural Geography | | Unpaid Service-Learning (SL) experience completed with approved community partner. | Prerequisites: Permission of Instructor. | GCU282AB may be repeated for a total of six (6) credit hours. Standard grading available according to procedures outlined in catalog. | Acad | LAB 2.0 2.0 0.0 | L |
| GCU282AC | 2023 Fall | Service-Learning Experience in Cultural Geography | | Unpaid Service-Learning field experience, completed with approved community partner. | Prerequisites: Permission of Instructor. | GCU282AC may be repeated for a total of six (6) credit hours. Standard grading available | Acad | LAB 3.0 3.0 0.0 | L |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | according to procedures outlined in catalog. | | | |
| GCU298AA | 2005 Fall | Special Projects | GPH298AA | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment are available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | Prerequisites: Permission of Program Director or Instructor. | | Acad | LAB 1.0 1.0 0.0 | Z |
| GCU298AB | 2005 Fall | Special Projects | GPH298AB | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment are available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | Prerequisites: Permission of Program Director or Instructor. | | Acad | LAB 2.0 2.0 0.0 | Z |
| GCU298AC | 2005 Fall | Special Projects | GPH298AC | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment are available for student use. Allows the best aspects of independent study and | Prerequisites: Permission of Program Director or Instructor. | | Acad | LAB 3.0 3.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | | | | | |
| GER085AA | 2005 Spring | Speedy German I | | Basic grammar and vocabulary of the German language to practice listening and speaking skills | Prerequisites: None. | | Acad | LEC 1.0 1.0 1.0 | S |
| GER085AB | 2014 Fall | Speedy German II | | Intermediate vocabulary, German syntax and inflections to further develop conversational skills in German. | Prerequisites: A grade of C or better in GER085AA. Completion of prerequisites within the last three years is required. | | | LEC 1.0 1.0 1.0 | S |
| GER085AC | 2014 Fall | Speedy German III | | Continued development of German speaking and listening skills to express opinions and thoughts on a variety of subjects. | Prerequisites: A grade of C or better in GER085AB. Completion of prerequisites within the last three years is required. | | | LEC 1.0 1.0 1.0 | S |
| GER101 | 2015 Fall | Elementary German I | | Basic grammar, pronunciation and vocabulary of the German language. Includes the study of German culture, practice of listening, speaking, reading and writing skills. | Prerequisites: None. | Field trips may be required. Course Attribute(s): General Education Designation: Global Awareness - [G] Arizona Shared Unique Number SUN#: GER1101 | Acad | LEC 4.0 4.0 4.0 | S |
| GER101AA | 2018 Fall | Elementary German I | | Basic grammar, pronunciation and vocabulary of the German language. Includes the study of German culture, practice of listening, speaking, reading and writing skills. | Prerequisites: None. | Course Attribute(s): General Education Designation: Global Awareness - [G] | Acad | L+L 4.0 5.0 5.0 | T |
| GER102 | 2015 Fall | Elementary German II | | Continued study of grammar and vocabulary of the German language along with the study of German culture. Emphasis on German language skills. | Prerequisites: A grade of C or better in GER101 or GER101AA or permission of Department or Division. Completion of prerequisites within the last three years is required. | Course Attribute(s): General Education Designation: Global Awareness - [G] Arizona Shared Unique Number SUN#: GER1102 | Acad | LEC 4.0 4.0 4.0 | S |
| GER102AA | 2018 Fall | Elementary German II | | Continued study of grammar and vocabulary of the German language along with the study of German culture. Emphasis on German language skills. | Prerequisites: A grade of C or better in GER101 or GER101AA or permission of Department or Division. | Course Attribute(s): General Education Designation: Global Awareness - [G] | Acad | L+L 4.0 5.0 5.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | Completion of prerequisites within the last three years is required. | | | | |
| GER115 | 1994 Fall | Beginning German Conversation I | | Conversational German. Basic sentence structure, pronunciation and vocabulary necessary to develop speaking ability in German. Designed for students seeking speaking and listening abilities with little emphasis on grammar | Prerequisites: None. | | Acad | LEC 3.0 3.0 3.0 | S |
| GER116 | 2014 Fall | Beginning German Conversation II | | Continued development of speaking and listening skills for effective communication in German. | Prerequisites: A grade of C or better in GER115 or one year of high school German or permission of Department or Division. Completion of prerequisites within the last three years is required. | | | LEC 3.0 3.0 3.0 | S |
| GER201 | 2014 Fall | Intermediate German I | | Review of essential grammar of the German language and study of the German culture. Continued practice and development of reading, writing, and speaking skills. | Prerequisites: A grade of C or better in GER102 or GER102AA or two years of high school German or permission of Department or Division. Completion of prerequisites within the last three years is required. | Course Attribute(s): General Education Designation: Global Awareness - [G] Arizona Shared Unique Number SUN#: GER2201 | Acad | LEC 4.0 4.0 4.0 | S |
| GER202 | 2014 Fall | Intermediate German II | | Continued development of German language skills and continued study of the German culture. | Prerequisites: A grade of C or better in GER201 or permission of Department or Division. Completion of prerequisites within the last three years is required. | Course Attribute(s): General Education Designation: Global Awareness - [G] Arizona Shared Unique Number SUN#: GER2202 | Acad | LEC 4.0 4.0 4.0 | S |
| GER226 | 2014 Fall | Intermediate German Conversation II | | Further development of skills in conversational German. | Three semesters of high school German or permission of Department or Division. | | | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | Completion of prerequisites within the last three years is required. | | | | |
| GER296WA | 2023 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor. | Acad | | LAB 1.0 5.0 0.0 | Z |
| GER296WB | 2023 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor. | Acad | | LAB 2.0 10.0 0.0 | Z |
| GER296WC | 2023 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a | | | LAB 3.0 15.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor. | | | | |
| GER296WD | 2023 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor. | | Acad | LAB 4.0 20.0 0.0 | Z |
| GER298AA | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | Prerequisites: Permission of Program Director or Instructor. | | Acad | LAB 1.0 1.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| GER298AB | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | Prerequisites: Permission of Program Director or Instructor. | | Acad | LAB 2.0 2.0 0.0 | Z |
| GER298AC | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | Prerequisites: Permission of Program Director or Instructor. | | Acad | LAB 3.0 3.0 0.0 | Z |
| GIS205 | 2024 Fall | Geographic Information Technologies | | Introduces modern geographic information technologies, including cartography, Geographic Information System (GIS), remote sensing, global positioning systems, and statistical analyses. | Prerequisites: None. | Knowledge of computer navigation and software application is recommended. | Acad | LEC 3.0 3.0 3.0 | S |
| GIS211 | 2020 Fall | Geographic Information Science I | | Introduces students to digital map creation including vector and raster data, map elements, and design, symbology, and the geo database using Environmental | Prerequisites: A grade of C or better in GIS205 or permission of Instructor. | | Acad | L+L 4.0 4.0 4.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Systems Research Institute (ESRI) desktop and online mapping environments. | | | | | |
| GIS220 | 2017 Fall | Introduction to ArcPy Scripting | | Students will learn how to automate geoprocessing tasks and apply scripting fundamentals using the ArcGIS Python-based scripting language ArcPy. The course emphasizes problem solving using geoprocessing analysis, identifying system integration and data management tasks, determining programming tools and order based upon workflow analysis. | Prerequisites: A grade of C or better in GIS211. | | Acad | LEC 3.0 3.0 3.0 | S |
| GIS222 | 2017 Fall | Geographic Information Science II | | Geographic Information Science (GIS) as a basis for microcomputer spatial analysis and synthesis. Includes digitizing, database organization, spatial retrieval and graphics. | Prerequisites: A grade of C or better in GIS211 or permission of Instructor. | | Acad | LEC 3.0 3.0 3.0 | S |
| GIS223 | 2017 Fall | Introduction to Digital Image Processing | | Uses and application of remote sensing and imagery in Geographic Information Systems (GIS). Uses and application of Global Positioning Systems to GIS and remote sensing. | Prerequisites: None. | | Acad | LEC 3.0 3.0 3.0 | S |
| GLG101 | 2019 Summer | Introduction to Geology I - Physical Lecture | | Introduction to Earth's materials, surface and internal geologic processes, plate tectonics and geologic time. | Prerequisites: None. | Students may receive credit for only one of the following: GLG101 or GLG101IN. Course Attribute(s): General Education Designation: Natural Sciences (Quantitative) - [SQ] in combination with: GLG103 Arizona Shared Unique Number SUN#: GLG 1101 | Acad | LEC 3.0 3.0 3.0 | S |
| GLG101IN | 2019 Summer | Introduction to Geology I - Physical | | Introduction to Earth's materials, surface and internal geologic processes, plate tectonics and geologic time. Includes practical experience in rock and mineral | Prerequisites: None. | Enrollment in both a GLG101IN lecture section and a GLG101IN laboratory section is required. Students may receive credit for only one of the following: GLG101 and GLG103 | Acad | LEC 4.0 3.0 3.0 LAB 0.0 3.0 3.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | identification, topographic maps, and applied problems in geology. | | or GLG101IN. Course Attribute(s): General Education Designation: Natural Sciences (Quantitative) - [SQ] Arizona Shared Unique Number SUN# GLG1101 | | | |
| GLG102 | 2019 Summer | Introduction to Geology II - Historical Lecture | | The origin and history of the Earth, its dynamic geographic and climatic changes. Evolution and sequence of life recorded in the fossil record; tectonic evolution of major continents through time. | Prerequisites: None. | Students may receive credit for only one of the following: GLG102 or GLG102IN. Course Attribute(s): General Education Designation: Historical Awareness - [H] General Education Designation: Natural Sciences (General) - [SG] in combination with: GLG104 | Acad | LEC 3.0 3.0 3.0 | S |
| GLG102IN | 2019 Summer | Introduction to Geology II - Historical | | The origin and history of the Earth, its dynamic geographic and climatic changes. Evolution and sequence of life recorded in the fossil record; tectonic evolution of major continents through time. | Prerequisites: None. | Enrollment in both a GLG102IN lecture section and a GLG102IN laboratory section is required. Students may receive credit for only one of the following: GLG102 and GLG104 or GLG102IN. Course Attribute(s): General Education Designation: Historical Awareness - [H] General Education Designation: Natural Sciences (General) - [SG] | Acad | LEC 4.0 3.0 3.0 LAB 0.0 3.0 3.0 | T |
| GLG103 | 2019 Summer | Introduction to Geology I - Physical Lab | | Includes practical experience in rock and mineral identification, topographic maps, and applied problems in geology. | Prerequisites: None. | GLG103 may accompany GLG101. Students may receive credit for only one of the following: GLG103 or GLG101IN. Course Attribute(s): General Education Designation: Natural Sciences (Quantitative) - [SQ] in combination with: GLG103 Arizona Shared Unique Number SUN#: GLG 1101 | Acad | LAB 1.0 3.0 3.0 | T |
| GLG104 | 2019 Summer | Introduction to Geology II - Historical Lab | | The study of minerals, rocks, fossils, geologic maps and structures. | Prerequisites: None. | GLG104 may accompany GLG102. Students may receive credit for only one of the following: GLG104 or GLG102IN. Course Attribute(s): General Education Designation: Historical Awareness - [H] General Education Designation: | Acad | LAB 1.0 3.0 3.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Natural Sciences (General) - [SG] in combination with: GLG102 | | | |
| GLG105 | 2018 Fall | Introduction to Planetary Science | | A survey of solar system objects and their geologic evolution, surfaces, interiors, and atmospheres, and the methods used to study them; weekly laboratory for data analysis and experiments; possible weekend field trip | Prerequisites: None. | Course Attribute(s): General Education Designation: Natural Sciences (General) - [SG] | Acad | L+L 4.0 6.0 6.0 | T |
| GLG106 | 2019 Spring | Life in the Universe | AST106 | Introduction to the search for life in the universe for the non-science major. Earth's location in space and time, nature of life, light and the spectrum, origin and history of the universe, origin of life on Earth and the possibility of life on other planets. | Prerequisites: A grade of C or better in MAT090 or MAT091 or MAT092 or completion of higher level mathematics course, or satisfactory score on placement exam. | Course Attribute(s): General Education Designation: Natural Sciences (Quantitative) - [SQ] | Acad | LEC 4.0 3.0 3.0 LAB 0.0 3.0 3.0 | T |
| GLG107 | 2019 Spring | Life in the Universe Laboratory | AST107 | Astronomy, Biology, and Planetary Science laboratory. | Prerequisites: A grade of C or better in AST/GLG106 and permission of Instructor or Department or Division. | AST/GLG107 is a course intended for those students who have previously completed the corresponding lecture course. Current MCCCD students should enroll in AST/GLG106 only. | Acad | LAB 1.0 3.0 3.0 | T |
| GLG110 | 2020 Fall | Geological Disasters and the Environment | | Acquaints students with the use and importance of geological studies as they apply to the interactions between people and the earth. Includes geological processes and hazards such as earthquakes, volcanoes, floods and landslides. Examines environmental impact and use of mineral and energy resources. | Prerequisites: None. | Students may receive credit for only one of the following: GLG110 or GLG110IN. Course Attribute(s): General Education Designation: General Education Designation: Global Awareness - [G] General Education Designation: Natural Sciences (Quantitative) - [SQ] in combination with GLG111 | Acad | LEC 3.0 3.0 3.0 | S |
| GLG110IN | 2020 Fall | Geological Disasters and the Environment | | Acquaints students with the use and importance of geological studies as they apply to the interactions between people and the Earth. Includes geological processes and hazards such | Prerequisites: None | Enrollment in both a GLG110IN lecture section and a GLG110IN laboratory section is required. Students may receive credit for only one of the following: GLG110 and GLG111 or GLG110IN. Course | Acad | LEC 4.0 3.0 3.0 LAB 0.0 3.0 3.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | as earthquakes, volcanoes, floods and landslides. Examines environmental impact and use of mineral and energy resources. | | Attribute(s): General Education Designation: Global Awareness - [G] General Education Designation: Natural Sciences (Quantitative) - [SQ] | | | |
| GLG111 | 2020 Fall | Geological Disasters and the Environment Lab | | Introduction to geological processes and concepts. Application of basic geologic knowledge to evaluate, interpret and propose solutions for a variety of current and past geology-related environmental disasters and hazards. | Prerequisites: None. | May accompany GLG110. Students may receive credit for only one of the following: GLG111 or GLG110IN. Course Attribute(s): General Education Designation: Global Awareness - [G] in combination with GLG110 General Education Designation: Natural Sciences (Quantitative) - [SQ] in combination with GLG110 | Acad | LAB 1.0 3.0 3.0 | T |
| GLG121 | 2018 Fall | Geology of the Grand Canyon | | Introduction to the physiography and geology of the Grand Canyon. Includes a hiking field trip to the Grand Canyon. | Prerequisites: None. GLG103 suggested but not required. | | | L+L 1.0 2.0 2.0 | T |
| GLG140 | 1996 Fall | Introduction to Oceanography | | Investigates the marine environment in terms of basic scientific concepts. Emphasizes the impact of ocean pollutants, climate fluctuations, and resources from the sea | Prerequisites: None. | | Acad | LEC 3.0 3.0 3.0 | S |
| GLG140IN | 2020 Fall | Introduction to Oceanography | | Introduces students to the physical, chemical, and geological conditions that regulate global ocean phenomena. Topics covered include history of oceanography, physical and chemical properties of ocean water, air-sea interactions, current, wave, and tidal phenomena, origins of the oceans, geologic processes and features, biological influences, and environmental issues. Laboratory exercises are included to provide experimental learning opportunities. | Prerequisites: None. | Enrollment in both a GLG140IN lecture section and a GLG140IN laboratory section is required. May include one or more field trips. | Acad | LEC 4.0 3.0 3.0 LAB 0.0 3.0 3.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| GLG229AB | 2023 Fall | Field Studies for Educators | | Field trips to selected geological areas in Arizona in order to collect and/or observe geological phenomena. Designed for pre-college teachers. | Prerequisites: None. | | Acad | LAB 2.0 10.0 2.0 | F |
| GLG229AC | 2023 Fall | Field Studies for Educators | | Field trips to selected geological areas in Arizona in order to collect and/or observe geological phenomena. Designed for pre-college teachers. | Prerequisites: None. | | Acad | LAB 3.0 15.0 3.0 | F |
| GLG230AA | 2014 Fall | Field Geology of the Southwest | | Field trips to selected areas in the Southwest, such as Arizona, Utah, California, and Sonora to observe and interpret various geological features and phenomena. | Prerequisites: None. GLG103 suggested but not required. | GLG230AA may be repeated for a total of four (4) credit hours. | Acad | LAB 1.0 5.0 1.0 | F |
| GLG230AB | 2014 Fall | Field Geology of the Southwest | | Field trips to selected areas in the Southwest, such as Arizona, Utah, California, and Sonora to observe and interpret various geological features and phenomena. | Prerequisites: None. GLG103 suggested but not required. | GLG230AB may be repeated for a total of eight (8) credit hours. | Acad | LAB 2.0 10.0 2.0 | F |
| GLG230AC | 2014 Fall | Field Geology of the Southwest | | Field trips to selected areas in the Southwest, such as Arizona, Utah, California, and Sonora to observe and interpret various geological features and phenomena. | Prerequisites: None. GLG103 suggested but not required. | GLG230AC may be repeated for a total of twelve (12) credit hours. | Acad | LAB 3.0 15.0 3.0 | F |
| GLG231AA | 2014 Fall | Special Topics in Geology | | Exploration of important topics in geology. Specific topic varies. | Prerequisites: None. | GLG231AA may be repeated for a total of two (2) credit hours. | Acad | LEC 0.5 0.5 0.5 | S |
| GLG231AB | 2014 Fall | Special Topics in Geology | | Exploration of important topics in geology. Specific topic varies. | Prerequisites: None. | GLG231AB may be repeated for a total of four (4) credit hours. | Acad | LEC 1.0 1.0 1.0 | S |
| GLG231AC | 2014 Fall | Special Topics in Geology | | Exploration of important topics in geology. Specific topic varies. | Prerequisites: None. | GLG231AC may be repeated for a total of eight (8) credit hours. | Acad | LEC 2.0 2.0 2.0 | S |
| GLG231AD | 2014 Fall | Special Topics in Geology | | Exploration of important topics in geology. Specific topic varies. | Prerequisites: None. | GLG231AD may be repeated for a total of twelve (12) credit hours. | Acad | LEC 3.0 3.0 3.0 | S |
| GLG280 | 1994 Fall | Geology of Arizona Lecture | | Acquaints students with the physical and historical geology of Arizona, including the origin of present-day land forms and | Prerequisites: None. | | Acad | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | outstanding modern geologic features and processes now in operation | | | | | |
| GLG281 | 2018 Fall | Geology of Arizona Lab | | May accompany GLG280. Examples of specific geologic processes and local areas. May require field trips | Prerequisites: None. | | Acad | LAB 1.0 3.0 3.0 | T |
| GLG282AA | 2023 Fall | Volunteerism for Geology: A Service Learning Experience | | Service-learning field experience within human service organizations, government offices, public schools, or hospitals. | Prerequisites: Permission of Instructor. | GLG282AA may be repeated for a total of six (6) GLG282 credit hours; may not repeat specific agency assignment for more than three (3) credit hours. Standard grading available according to college catalog. | Acad | LAB 1.0 1.0 0.0 | L |
| GLG296WA | 2023 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor. | | Acad | LAB 1.0 5.0 0.0 | Z |
| GLG296WB | 2023 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at | | | LAB 2.0 10.0 0.0 | Z |



Acad

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | least one class which is related to student's major or career interest or with permission of the Instructor. | | | | |
| GLG296WC | 2023 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor. | | Acad | LAB 3.0 15.0 0.0 | Z |
| GLG296WD | 2023 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor. | | Acad | LAB 4.0 20.0 0.0 | Z |
| GLG298AA | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and | Prerequisites: Permission of Program Director or Instructor. | | Acad | LAB 1.0 1.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | | | | | |
| GLG298AB | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | Prerequisites: Permission of Program Director or Instructor. | | Acad | LAB 2.0 2.0 0.0 | Z |
| GLG298AC | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | Prerequisites: Permission of Program Director or Instructor. | | Acad | LAB 3.0 3.0 0.0 | Z |
| GPH111 | 2019 Fall | Introduction to Physical Geography Lecture | | Earth's physical processes and impacts on human environments via the | Prerequisites: None. | Course Attribute(s): General Education Designation: Natural | Acad | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | atmosphere, biosphere, lithosphere and hydrosphere. Topics include severe weather, climate change, biomes and ecosystems, landform processes; mountain building and erosion by rivers, glaciers, waves and wind. | | Sciences (Quantitative) - [SQ] in combination with GPH112. | | | |
| GPH112 | 2019 Fall | Introduction to Physical Geography Lab | | Earth's physical processes and impacts on the human environment via the atmosphere, biosphere, lithosphere and hydrosphere. Practical experiences include earth-sun relationships, weather, climate, biomes, landform processes; mountain building and erosion by rivers, glaciers, waves and wind, topographic maps. | Prerequisites: A grade of C or better in GPH111 or Corequisites: GPH111. | Course Attribute(s): General Education Designation: Natural Sciences (Quantitative) - [SQ] in combination with GPH111. | Acad | LAB 1.0 3.0 3.0 | T |
| GPH113 | 2019 Fall | Introduction to Physical Geography | | Earth's physical processes and impacts on human environments via the atmosphere, biosphere, lithosphere and hydrosphere. Topics and practical experiences include severe weather, climate change, biomes and ecosystems, landform processes; mountain building and erosion by rivers, glaciers, waves and wind, topographic maps. | Prerequisites: None. | General Education Value: GPH111 (3) and GPH112 , Natural Science - Quantitative (SQ), Natural Science - Quantitative (SQ) | Acad | LEC 4.0 3.0 3.0 LAB 0.0 3.0 3.0 | T |
| GPH194 | 1999 Spring | Special Topics in Physical Geography | | Detailed study of specific regions, topics, or current issues in physical geography. Emphasis on relationships within and between the atmosphere, lithosphere, hydrosphere, biosphere, and how humans relate to their environment. Topics may include environmental ecosystems, physical processes (i.e., weather, climate, geomorphology, | Prerequisites: None. | GPH194 may use field trips as a mandatory component. | Acad | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | oceanography), natural resources and the impacts of human population (i.e., pollution, politics, religion, economic activities). | | | | | |
| GPH210 | 2007 Fall | Society and Environment | | Principles of physical geography relating to environmental problems pertinent to contemporary society. Pollution, maladjusted land use, resource exploitation | Prerequisites: A grade of C or better in ENG101 or ENG107 or equivalent. | Course Attribute(s): General Education Designation: Global Awareness - [G] | Acad | LEC 3.0 3.0 3.0 | S |
| GPH211 | 2023 Fall | Landform Processes | | Geographic characteristics of landforms and earth surface processes emphasizing erosion, transportation, deposition and implications for human management of the environment. | Prerequisites: None. | | Acad | LEC 4.0 3.0 3.0 LAB 0.0 3.0 3.0 | T |
| GPH212 | 2004 Spring | Introduction to Meteorology I | | Atmospheric processes and elements. General and local circulation, heat exchange and atmospheric moisture | Prerequisites: None. | Course Attribute(s): General Education Designation: Natural Sciences (Quantitative) - [SQ] in combination with: GPH214 | Acad | LEC 3.0 3.0 3.0 | S |
| GPH213 | 2016 Fall | Climate and Weather | | Study of atmospheric phenomena over periods of time measured in months, years or longer. Includes average weather conditions, infrequent and unusual types of weather, and the influence of weather on the cultural and human landscape. | Prerequisites: None. | Course Attribute(s): General Education Designation: Natural Sciences (General) - [SG] in combination with: GPH215 | Acad | LEC 3.0 3.0 3.0 | S |
| GPH214 | 2018 Fall | Introduction to Meteorology Laboratory I | | Basic meteorological and climatological measurements | Prerequisites: None. Corequisites: GPH212. | Course Attribute(s): General Education Designation: Natural Sciences (Quantitative) - [SQ] in combination with: GPH212 | Acad | LAB 1.0 3.0 3.0 | T |
| GPH215 | 2018 Fall | Climate and Weather Laboratory | | A mathematical, statistical, and spatial analysis of climatological phenomena. | Prerequisites: None. Corequisites: GPH213. | General Education Designation: Natural Sciences (General) - [SG] in combination with: GPH213 | Acad | LAB 1.0 3.0 3.0 | T |
| GPH267 | 2013 Spring | Extreme Weather and Climate | | Emphasis on interaction of physical and cultural geography in potentially hazardous weather and climate processes. Exploration of hazard risk analysis. | Prerequisites: A grade of C or better in ENG101 or ENG107. | Course Attribute(s): General Education Designation: Literacy and Critical Inquiry - [L] | Acad | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| GPH282AA | 2023 Fall | Service-Learning Experience in Physical Geography | | Unpaid Service-Learning (SL) experience, completed with approved community partner. | Prerequisites: Permission of Instructor. | GPH282AA may be repeated for a total of six (6) credit hours. Standard grading available according to procedures outlined in catalog. | Acad | LAB 1.0 1.0 0.0 | L |
| GPH282AB | 2023 Fall | Service-Learning Experience in Physical Geography | | Unpaid Service-Learning (SL) experience, completed with approved community partner. | Prerequisites: Permission of Instructor. | GPH282AB may be repeated for a total of six (6) credit hours. Standard grading available according to procedures outlined in catalog. | Acad | LAB 2.0 2.0 0.0 | L |
| GPH282AC | 2023 Fall | Service-Learning Experience in Physical Geography | | Unpaid Service-Learning (SL) experience, completed with approved community partner. | Prerequisites: Permission of Instructor. | GPH282AC may be repeated for a total of six (6) credit hours. Standard grading available according to procedures outlined in catalog. | Acad | LAB 3.0 3.0 0.0 | L |
| GPH298AA | 2005 Fall | Special Projects | GCU298AA | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment are available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | Prerequisites: Permission of Program Director or Instructor. | | Acad | LAB 1.0 1.0 0.0 | Z |
| GPH298AB | 2005 Fall | Special Projects | GCU298AB | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment are available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student | Prerequisites: Permission of Program Director or Instructor. | | Acad | LAB 2.0 2.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | development. COMMON COMPETENCY COURSE | | | | | |
| GPH298AC | 2005 Fall | Special Projects | GCU298AC | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment are available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | Prerequisites: Permission of Program Director or Instructor. | | Acad | LAB 3.0 3.0 0.0 | Z |
| GRK101 | 2020 Fall | Elementary Classical Greek I | | Introduction to the basic grammar and vocabulary of Ancient Greek. Includes introductory study of Ancient Greek culture. Practice reading and translating Ancient Greek as well as basic translation of English to Ancient Greek. | Prerequisites: None. | | Acad | LEC 4.0 4.0 4.0 | S |
| GRK102 | 2020 Fall | Elementary Classical Greek II | | Continued study of the grammar and vocabulary of Ancient Greek and Ancient Greek culture. Emphasis on reading and translating Ancient Greek to English, culminating in the reading of unadapted ancient texts. | Prerequisites: A grade of C or better in GRK101 or permission of Department or Division. Completion of prerequisites within the last three years is required. | | | LEC 4.0 4.0 4.0 | S |
| GRK296WA | 2023 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of | Acad | | LAB 1.0 5.0 0.0 | Z |



Acad

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor. | | | | |
| GRK296WB | 2023 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor. | | Acad | LAB 2.0 10.0 0.0 | Z |
| GRK296WC | 2023 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor. | | Acad | LAB 3.0 15.0 0.0 | Z |
| GRK296WD | 2023 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to | Prerequisites: Completion of at least twelve (12) college | | | LAB 4.0 20.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | accomplish an outcome related to the career objectives of the students. | credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor. | | | | |
| GRK298AA | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | Prerequisites: Permission of Program Director or Instructor. | | Acad | LAB 1.0 1.0 0.0 | Z |
| GRK298AB | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student | Prerequisites: Permission of Program Director or Instructor. | | Acad | LAB 2.0 2.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | development. COMMON COMPETENCY COURSE | | | | | |
| GRK298AC | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | Prerequisites: Permission of Program Director or Instructor. | | Acad | LAB 3.0 3.0 0.0 | Z |
| GST201 | 2020 Fall | Game Studies | | Introduces concepts, tools, and topics necessary to studying and understanding games, whether analog or digital, as closed systems for definition, analysis, design, development, play, critique, and revision. Surveys games from around the world and introduces concepts, tools, and topics necessary to studying and understanding them, whether analog or digital, as closed systems for definition, analysis, design, development, play, critique, and revision. | Prerequisites: A grade of C or better in (RDG100 or RDG100LL) or (RDG100AA and RDG100AB and RDG100AC) or RDG111 or RDG112 or RDG113 or eligibility for ENG101 as indicated by appropriate writing assessment test score. | | Acad | LEC 3.0 3.0 3.0 | S |
| GST202 | 2020 Fall | Games, Culture and Aesthetics | | Considers games as artifacts and expressions of our basic consciousness, humanity, and potential. Explores through the lens of world cultures such concepts as values, power relations, gender roles, arts, aesthetics, and desire. Compares games across cultural, temporal, geographic, and linguistic divides, for the | Prerequisites: A grade of C or better in (RDG100 or RDG100LL) or (RDG100AA and RDG100AB and RDG100AC) or RDG111 or RDG112 or RDG113 or eligibility for ENG101 as indicated by | Course Attribute(s): General Education Designation: Global Awareness - [G] General Education Designation: Humanities, Arts and Design - [HU] | Acad | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | purpose of examining and appreciating the experiences, contributions, and values of diverse populations, as conveyed through the global phenomenon of games. | appropriate writing assessment test score. | | | | |
| GST245 | 2023 Fall | Games for Teaching and Learning | | Survey of past and present games for teaching and learning from multiple cultures and continents. Exploration of the potential for games to help us: face challenges; solve problems; enhance our quality of life; and render our experience of the world in a more meaningful way. Applies theories of learning to determine best practices in game design, development, and production. Demonstrates how to align instructional content with appropriate game-based mechanics and thinking. Culminates in the prototype of a game for teaching and learning. | Prerequisites: A grade of C or better in (ENG101 or ENG107) and (RDG100 or RDG100LL or RDG111 or RDG112 or RDG113) or satisfactory score on District reading placement exam or permission of Instructor. | Acad | | LEC 3.0 3.0 3.0 | S |
| GTC104 | 2018 Fall | Manufacturing Processes | | Introduces students to manufacturing processes used in conversion of raw materials into useful products. Presents the basic manufacturing processes in logical groups, based on similarities of purpose and applications | Prerequisites: None. | | Occ | L+L 4.0 7.0 7.0 | T |
| GTC106 | 2018 Fall | Industrial Safety | MIT106 OSH106 | Safety, health management, and accident prevention in industrial work environment. Role of Occupational Safety and Health Administration (OSHA) act, materials handling, electrical safety, machine safety, first response to fire and medical emergencies, safety signs and color codes, recognition of | Prerequisites: None. | | Occ | LEC 2.0 2.0 2.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | safety and health hazards accident prevention, management responsibilities, and OSHA 10 certification. | | | | | |
| GTC106AA | 2018 Fall | Industrial Safety | | Safety, health management and accident prevention in industrial work environment. Role of Occupational Safety and Health Administration (OSHA) act, materials handling, electrical safety, machine safety, first response to fire and medical emergencies, safety signs and color codes, recognition of safety and health hazards accident prevention, and management's responsibilities. | Prerequisites: None. | | Occ | L+L 2.0 3.0 3.0 | T |
| GTC107 | 2013 Spring | Technical Mathematics I | | Mathematical principles to include basic operations, significant digits, exponents, square roots and order of operations. Solve problems using arithmetic, signed numbers, percentages, fractions, exponents, and square root. Use of hand held calculator. Technology related problems | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| GTC108 | 2013 Spring | Technical Mathematics II | | Fundamental algebraic operations. Problem solving involving metric measurement, gears, pulleys, simple mechanism problems. Areas and volume calculations of geometric figures. Essentials of trigonometry for solving right and oblique triangles. | Prerequisites: A grade of C or better in GTC107 or permission of Instructor. | | Occ | LEC 3.0 3.0 3.0 | S |
| GTC121 | 1995 Fall | Construction Estimating I | | Fundamentals of determining quantities of material, equipment and labor for given project. Includes procedures used in applying proper unit costs to these items | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| GTC123 | 1993 Fall | Construction Estimating II | | Details of job estimates. Includes unit cost considerations and subcontracting. Emphasis on bid preparation | Prerequisites: A grade of C or better in GTC121 or permission of Department or Division. | | | LEC 3.0 3.0 3.0 | S |
| GTC127 | 2018 Fall | Beginning Woodworking | | Introduction to woodworking fundamentals and applications. Familiarization with the basic woodworking tools emphasizing the safe and proper use of woodworking hand tools and stationary and portable power tools. Class projects develop a working project plan, identify material needs, cost analysis, basic construction of the project, and basic finishing techniques | Prerequisites: None. | Occ | Occ | L+L 3.0 4.0 4.0 | T |
| GTC128 | 2018 Fall | Intermediate Woodworking | | Further development and application of basic woodworking skills. Complex projects with emphasis on planning and calculating and buying needed materials. Introduction of jointery, complex fitting, more advanced finishing, and wood carving. | Prerequisites: A grade of C or better in GTC127 or previous woodworking experience. | | | L+L 3.0 4.0 4.0 | T |
| GTC129 | 2018 Fall | Manufacturing Welding | | Technical theory, safety considerations, and application of shop and welding processes commonly used in manufacturing, including oxyacetylene welding, brazing, and cutting, SMAW (Elec ARC), GMAW (MIG), GTAW (TIG) and plasma cutting | Prerequisites: None. | Occ | Occ | L+L 3.0 8.0 8.0 | T |
| GTC130 | 2018 Fall | Furniture Construction I | | Process of building a piece of furniture including calculating and buying needed material, using tools properly and safely (hand tools and machines), jointery, wood preparation and basic finishing techniques. | Prerequisites: A grade of C or better in GTC128 or previous woodworking experience and permission of Instructor. | | | L+L 3.0 6.0 6.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| GTC131 | 2018 Fall | Furniture Construction II | | Continuation of GTC130 including special set-ups on machines, special joints, adhesives, special finishes, panel doors, panel drawers, metal drawer guides and plastic laminates | Prerequisites: A grade of C or better in GTC130 or permission of instructor. | | Occ | L+L 3.0 6.0 6.0 | T |
| GTC132 | 2018 Fall | Wood Finishing | | Introduction to the materials, processes, and sequences used in applying a variety of finishes to various wood types. Includes abrasives, stains, fillers, surface coats, tools and equipment, and basic refinishing techniques. | Prerequisites: None. | | Occ | L+L 3.0 4.0 4.0 | T |
| GTC144 | 2018 Fall | Introduction to Cabinetmaking | | Techniques and projects to produce complex cabinet projects. Includes project planning, working from plans, material cost analysis, and advanced finishing techniques. | Prerequisites: A grade of C or better in GTC130 and permission of Instructor. | | Occ | L+L 3.0 5.0 5.0 | T |
| GTC145 | 2018 Fall | Advanced Cabinetmaking | | Further exploration of advanced woodworking techniques on complex projects. | Prerequisites: A grade of C or better in GTC144 and permission of instructor. | | Occ | L+L 3.0 5.0 5.0 | T |
| GTC181 | 2018 Fall | Introduction to Fluid Power | | Develops an understanding of the fundamental laws and principles of fluids together with consideration of such fluid devices as valves, cylinders, pumps, sizes of lines, and simple hookups. Includes both hydraulics and pneumatics | Prerequisites: A grade of C or better in ELE101 or equivalent. | | | L+L 3.0 6.0 6.0 | T |
| GTC182 | 2018 Fall | Building Construction Methods I | | Basics of building construction from job site selection through exterior finish of the shell. Focuses mainly on residential construction for the consumer. Includes blueprints, estimating materials and labor, work scheduling, job layout, foundations, framing, and exterior finish. Energy conservation, safety, and | Prerequisites: None. | Occ | Occ | L+L 3.0 4.0 4.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | building codes discussed throughout the course | | | | | |
| GTC185 | 2018 Fall | Electro-Mechanical Devices | | Concepts, principles, maintenance, and troubleshooting of mechanical and electro-mechanical devices; mechanical alignment of shafts, pillowblocks, gears, and couplers on mechanical breadboard; transmission devices including lead screws, linkages, worm and worm wheels, gear trains, speed reducers, chain drives, and belt drives; principles of lubrication; operation of dc(direct current), ac(alternating current), and stepping motors; application of tachometers, stepping motors, linear actuators, relays, solenoids, switches, contactors, starters, and fuses; selection and specification of components from manufacturer's catalogs. | Prerequisites: A grade of C or better in ELE101 or GTC108 or (MAT103AA and MAT103AB) or permission of Instructor. | | Occ | L+L 4.0 6.0 6.0 | T |
| GTC208 | 1993 Fall | Statistical Process Control | | Study of statistical process control concepts and methods. Extraction and application of specific parameters from data retrieved from a process | Prerequisites: A grade of C or better in ELE101 or GTC108 or permission of Department or Division. | | | LEC 3.0 3.0 3.0 | S |
| GTC209 | 2018 Fall | Automated Manufacturing | MIT209 | Evolution of automation in manufacturing from fixed (hard) automation to Computer Integrated Manufacturing (CIM) is presented with numerical control (NC) ; computer-aided design/computer-aided manufacturing (CAD/CAM); automated material handling; automation communication protocol. Manufacturing management strategies | Prerequisites: A grade of C or better in ELT131 or ELE131 or GTC/MET206 or equivalent. | Occ | Occ | L+L 3.0 6.0 6.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | include statistical process control (SPC); material requirements planning (MRP); manufacturing resource planning (MRPII); and just-in-time (JIT). Hands-on experience with programmable logic controllers (PLC) and robotics included | | | | | |
| GTC216 | 1994 Fall | Properties of Materials | | Study of manufacturing properties of materials, the behavior of materials under load, stress and strain and torsion and qualities of materials other than strength | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| GTC223 | 2018 Fall | Advanced Machine Tools | | Advanced machining practices; emphasis on application of machines and tool theory. | Prerequisites: A grade of C or better in GTC102 or MET231. | | Occ | L+L 3.0 6.0 6.0 | T |
| GTC236 | 2018 Fall | CAD/CAM Computer Numerical Control (CNC) Programming | | Programming of Computer Numerical Control (CNC) machine tools such as CNC Milling Machines, and Turning Centers. Utilizing Computer Aided Drafting and Computer Aided Manufacturing (CAD/CAM) for design and generation of part geometry. Verification of tool path using CAM graphics. Generate program media using a CAM post processor | Prerequisites: None. | | Occ | L+L 3.0 6.0 6.0 | T |
| GTC272 | 2018 Fall | Automated Control Systems (PLC Applications) | | The programmable logic controller as the control unit for the application of sensors, switches, and transducers. Motors, stepper motors, and other prime movers are controlled. Includes both on/off and analog devices. | Prerequisites: A grade of C or better in GTC/MIT209 or permission of Instructor. | | Occ | L+L 3.0 6.0 6.0 | T |
| GTC273 | 2018 Fall | Industrial Automation Controls and System Integration. | | A study in application and implementation of industrial control systems including machine building and system integration | Prerequisites: A grade of C or better in GTC272. | | Occ | L+L 3.0 6.0 6.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| GTC276 | 2018 Fall | Solids Programming | | Parametric modeling, CNC part production, model to CAM system integration, and solid model part representation. Applied CAD/CAM in the role of Computer Integrated Technology (CIM) | Prerequisites: A grade of C or better in GTC266. | | Occ | L+L 3.0 6.0 6.0 | T |
| GTC296WA | 2002 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor. | | Occ | LAB 1.0 5.0 0.0 | Z |
| GTC296WB | 2002 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor. | | Occ | LAB 2.0 10.0 0.0 | Z |
| GTC296WC | 2002 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to | Prerequisites: Completion of at least twelve (12) college | | | LAB 3.0 15.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE | credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor. | | | | |
| GTC296WD | 2002 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor. | | Occ | LAB 4.0 20.0 0.0 | Z |
| GTC298AA | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be | Prerequisites: Permission of Program Director or Instructor. | | Occ | LAB 1.0 1.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | combined to maximize student development. COMMON COMPETENCY COURSE | | | | | |
| GTC298AB | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | Prerequisites: Permission of Program Director or Instructor. | | Occ | LAB 2.0 2.0 0.0 | Z |
| GTC298AC | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | Prerequisites: Permission of Program Director or Instructor. | | Occ | LAB 3.0 3.0 0.0 | Z |
| HBR101 | 2003 Spring | Elementary Biblical Hebrew I | | Introduction to the basic alphabet, grammar, pronunciation and vocabulary of classical Hebrew. Listening, speaking, reading, and writing skills | Prerequisites: None. | | Acad | LEC 4.0 4.0 4.0 | S |
| HBR102 | 2014 Fall | Elementary Biblical Hebrew II | | Continued study of grammar and vocabulary of classical Hebrew with emphasis on oral reading and interpretation skills. | Prerequisites: A grade of C or better in HBR101 or permission of Department or Division. Completion of | | | LEC 4.0 4.0 4.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | prerequisites within the last three years is required. | | | | |
| HBR201 | 2014 Fall | Intermediate Biblical Hebrew I | | Advanced study of grammar and vocabulary of classical Hebrew with emphasis on oral reading and interpretation skills. | Prerequisites: A grade of C or better in HBR102 or permission of Department or Division. Completion of prerequisites within the last three years is required. | | | LEC 4.0 4.0 4.0 | S |
| HCC102 | 2022 Fall | Introduction to Safe Patient Handling and Mobility | | Introduction to the history and principles of safe patient handling and mobility (SPHM). Introduction to patient mobility bedside assessment. Use of safe patient handling equipment and principles for in-bed movement, transfers to and from stretchers and chairs, exercise, and safe ambulation. Use of equipment for home care. Review and application of body mechanics. | Prerequisites: None. | Acad | Occ | L+L 0.5 0.5 0.5 | T |
| HCC109 | 2016 Spring | CPR for Health Care Provider | RES109 | Current American Heart Association standards for one and two rescuer cardiopulmonary resuscitation (CPR) and obstructed airway procedures on the adult, infant, and pediatric victim. Use of automatic, external defibrillation and resuscitation equipment. | Prerequisites: None. | | Occ | LEC 0.5 0.5 0.5 | S |
| HCC109AA | 2019 Fall | CPR for Healthcare Providers Practice and Testing | | Knowledge and skills refreshment for renewal of a current American Heart Association (AHA) Healthcare Provider (HCP) card or completion of eLearning practice and testing. Including one and two rescuer Cardiopulmonary Resuscitation (CPR) and obstructed airway procedures | Prerequisites: Valid Healthcare Provider CPR card at time of course or Part 1 Completion Certificate from an AHA HCP eLearning online course. | Successful completion of the HCC109AA course content meets requirements for an American Heart Association (AHA) Healthcare Provider CPR renewal card. | Occ | LEC 0.25 0.25 0.25 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | on the adult, infant, and pediatric victim. Automated external defibrillation (AED) application and oxygenation/ventilation management. | | | | | |
| HCC130 | 2017 Fall | Fundamentals in Health Care Delivery | | Overview of current and recent development of health care professions, including career and labor market information, health care delivery systems, third party payers, and facility ownership. Health organization structure, patient rights and quality care. Health care and life values. Definition and importance of values, ethics, and essential behaviors in the workplace. Worker rights and responsibilities. Healthful living practices to include nutrition, stress management and exercise. Occupational Safety and Health Administration (OSHA) standard precautions and facility safety. Use of principles of body mechanics in daily living activities. Basic communication skills which facilitate inter-professional teamwork in the health care setting. Focus on development of personal communication skills and an understanding of how effective communication skills promote teamwork. Focus on intercultural communication strategies. | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| HCC130AA | 2017 Fall | Health Care Today | | Overview of current health care professions including career and labor market information. Health care delivery systems, third-party | Prerequisites: None. | | Occ | LEC 0.5 0.5 0.5 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | payers, and facility ownership. Health organization structure, patient rights and quality care. | | | | | |
| HCC130AB | 2017 Fall | Workplace Behaviors in Health Care | | Health care and life values. Definition and importance of values, ethics, and essential behaviors in the workplace. Worker rights and responsibilities. | Prerequisites: None. | | Occ | LEC 0.5 0.5 0.5 | S |
| HCC130AC | 2017 Fall | Personal Wellness and Safety | | Introduces healthful living practices for health care professionals to include nutrition, stress management and exercise. Includes Occupational Safety and Health Administration (OSHA) standard precautions and facility safety. Use of principles of body mechanics in daily living activities. | Prerequisites: None. | | Occ | LEC 0.5 0.5 0.5 | S |
| HCC130AD | 2017 Fall | Communication and Teamwork in Health Care Organizations | | Emphasis on basic communication skills which facilitate teamwork in the health care setting. Focus on development of personal communication skills and an understanding of how effective communication skills promote teamwork. Focus on intercultural communication strategies. | Prerequisites: None. | | Occ | LEC 0.5 0.5 0.5 | S |
| HCC130AE | 2017 Fall | Legal Issues in Health Care | | Basic legal terminology used in the health care setting. Legal concepts related to health care employment, medical documentation, and communication. Introduction to regulatory requirements in health care. | Prerequisites: None. | | Occ | LEC 0.5 0.5 0.5 | S |
| HCC130AF | 2017 Fall | Decision Making in the Health Care Setting | | Principles and application of a decision making model. Description and application of ethics and process improvement and the relationship of both to the decision making model. | Prerequisites: None. | | Occ | LEC 0.5 0.5 0.5 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| HCC145 | 2017 Fall | Medical Terminology for Health Care Professionals | | Medical terminology used in health care, with special care populations and in special services. Body systems approach to terms related to structures, functions, diseases, procedures, and diagnostic tests. Building and analyzing terms using word parts. Medical abbreviations and symbols and term spelling. | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| HCC145AA | 2017 Fall | Medical Terminology for Health Care Professionals I | | Introduction to medical terms used in health care. Body systems approach to selected terms related to structures, functions, diseases, procedures, and diagnostic tests. Building and analyzing selected terms using basic word parts. Selected medical abbreviations and symbols and term spelling. | Prerequisites: None. | | Occ | LEC 1.0 1.0 1.0 | S |
| HCC145AB | 2017 Fall | Medical Terminology for Health Care Professionals II | | Selected medical terms used in health care. Body systems approach to more detailed terms related to structures, functions, diseases, procedures, and diagnostic tests. Building and analyzing selected terms using standard word parts. Selected abbreviations and symbols and term spelling. | Prerequisites: A grade of C or better in HCC145AA. | | | LEC 1.0 1.0 1.0 | S |
| HCC145AC | 2017 Fall | Medical Terminology for Health Care Professionals III | | Medical terminology used with special care populations and in special services. Includes obstetric, pediatric, mental health, diagnostic imaging, oncology, and surgery terms. Use of special care populations and special services word parts and term spelling. | Prerequisites: A grade of C or better in HCC145AA and HCC145AB or HCC146. | Occ | Occ | LEC 1.0 1.0 1.0 | S |
| HCC146 | 2017 Fall | Common Medical Terminology for Health Care Professionals | | Common medical terms used in health care. Body systems | Prerequisites: None. | | Occ | LEC 2.0 2.0 2.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | approach to common terms related to structures, functions, diseases, procedures, and diagnostic tests. Building and analyzing common terms using word parts. Common medical abbreviations and symbols and term spelling. | | | | | |
| HCC164 | 2017 Spring | Pharmacology for Allied Health | | Chemical, generic, and trade names for drugs. Use of drug references. Pharmacological principles of drugs. Routes of drug administration. Federal and Arizona regulations. Classification of drugs. Abbreviations and symbols for drug measurement, administration, and prescription. | Prerequisites: A grade of C or better in HCC130 or (HCC130AA, HCC130AB, HCC130AC, HCC130AD, HCC130AE and HCC130AF) or work experience or equivalent course education as evaluated by the Health Core Curriculum Coordinator. | Occ | | LEC 0.5 0.5 0.5 | S |
| HCC200 | 2018 Fall | Basic Client Care for Allied Health | | Safety procedures for the hospitalized client. Transfer, moving and positioning techniques. Client assessment methods and procedures. Protection of airways, drains, tubes, intravenous lines, and infusion pumps. Care of patient in traction and those with limitations to movement. Gloving, gowning, and sterile procedures. | Prerequisites: A grade of C or better in HCC130 or (HCC130AA, HCC130AB, HCC130AC, HCC130AD, HCC130AE and HCC130AF) or equivalent. | | Occ | LAB 0.5 1.5 1.5 | T |
| HCC204 | 2009 Spring | Clinical Pathophysiology | | Causes of disease and their impact on the human body. Common physiologic effects of disease on body systems. Roles of the multidisciplinary health care team in the diagnosis and treatment of disease. Cultural implications in prevention and treatment of disease. | Prerequisites: A grade of C or better in HCC130 or (HCC130AA, HCC130AB, HCC130AC, HCC130AD, HCC130AE and HCC130AF) or equivalent and (BIO160 or BIO201). | | | LEC 3.0 3.0 3.0 | S |



Occ

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| HCC208 | 2001 Fall | Health Care Leadership | | Introduction to concepts and skills required of health care leaders. Discussion of leadership styles and conflict management. Application of motivation, delegation, and communication techniques to teamwork and leadership. | Prerequisites: A grade of C or better in HCC130 or (HCC130AA, HCC130AB, HCC130AC, HCC130AD, HCC130AE and HCC130AF) or equivalent. | | Occ | LEC 1.0 1.0 1.0 | S |
| HCC218 | 2018 Fall | Venous Access for Diagnostic Agents and Pharmaceuticals | | Scope of practice and regulations governing venipuncture. Anatomy and physiology of the vascular system. Occupational Safety and Health Administration (OSHA) guidelines. Theory and practice of basic venipuncture for diagnostic agents and pharmaceuticals including equipment and procedures. | Prerequisites: HCC130 or (HCC130AA, HCC130AB, HCC130AC, HCC130AD, HCC130AE, and HCC130AF) or work experience or equivalent course education as evaluated by the Health Core Curriculum Coordinator or currently credentialed as a health care provider. | | Occ | LAB 0.5 1.5 1.5 | T |
| HCC298AA | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | Prerequisites: Permission of Program Director or Instructor. | | Occ | LAB 1.0 1.0 0.0 | Z |
| HCC298AB | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and | Prerequisites: Permission of Program Director or Instructor. | | Occ | LAB 2.0 2.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | | | | | |
| HCC298AC | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | Prerequisites: Permission of Program Director or Instructor. | | Occ | LAB 3.0 3.0 0.0 | Z |
| HCE113 | 2009 Fall | Biomedical Electronics I | | Electronic concepts, electrical connections including grounding, and electrical and patient safety | Prerequisites: Admission to the Electroneurodiagnostics Program or admission to Polysomnographic Technology Program. | | Occ | LEC 2.0 2.0 2.0 | S |
| HCE124 | 2006 Summer I | Donor Phlebotomy: Interviewing Techniques | | Theory and practice of interviewing techniques in donor setting or health care environment. | Prerequisites: Acceptance into the Donor Phlebotomy program or permission of Program Director. | HCE124 is offered on a Credit (P) No credit (Z) basis. Standard grading available according to procedures outlined in college catalog. | Occ | L+L 2.0 10.0 0.0 | Z |
| HCE125 | 2006 Summer I | Practicum: Donor Interviewing Techniques | | Application of interviewing techniques in donor setting or health care environment. | Prerequisites: A grade of C or better in (HCE124 and acceptance into the Donor Phlebotomy program) or permission of Program Director. | HCE125 is offered on a Credit (P) No credit (Z) basis. Standard grading available according to procedures outlined in college catalog. | Occ | LAB 1.5 12.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| HCE126 | 2006 Summer I | Donor Phlebotomy: Basic Donor Collection | | Theory and practice of basic donor phlebotomy including preparation; operation of equipment; and transportation, packing, and shipping procedures. | Prerequisites: A grade of C or better in (HCE124 and acceptance into the Donor Phlebotomy program) or permission of Program Director. | HCE126 is offered on a Credit (P) No credit (Z) basis. Standard grading available according to procedures outlined in college catalog. | Occ | L+L 1.5 3.0 0.0 | Z |
| HCE127 | 2006 Summer I | Practicum: Basic Donor Collection | | Application of basic donor phlebotomy to obtain blood from donors in a community blood center setting including preparation, operation of equipment, and shipping and packaging procedures. | Prerequisites: A grade of C or better in (HCE126 and acceptance into the Donor Phlebotomy program) or permission of Program Director. | HCE127 is offered on a Credit (P) No credit (Z) basis. Standard grading available according to procedures outlined in college catalog. | Occ | LAB 1.0 9.5 0.0 | Z |
| HCE271 | 2018 Fall | Patient Care Technician Skills | | Designed to prepare students for advanced patient care skills. Fundamentals in microorganisms and microbial control. Specimen collection, handling and testing, wound care, catheterization, and other designated procedures. | Prerequisites: Acceptance into the Patient Care Technician program or permission of Program Director. | | | L+L 1.0 1.75 1.75 | T |
| HCE272 | 2018 Fall | Practicum: Patient Care Technician | | Designed to provide clinical experience in the medical facility. Emphasis on application of advanced patient-care skills. Includes incorporation of new skills into a work assignment and development of working relationships in an expanded role. | Prerequisites: (A grade of C or better in HCE109 and HCE261 and HCE271 and current CPR card for Health Care Provider proof of immunity and health declaration form signed by a licensed health care provider proof of negative results to a drug screening and current fingerprinting clearance card) or permission of Program Director. | CPR card must remain current throughout the HCE272 externship/practicum.<br><br>Occ | Occ | LAB 1.0 4.75 4.75 | T |
| HCE298AA | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type | Prerequisites: Permission of Program Director or Instructor. | | Occ | LAB 1.0 1.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | | | | | |
| HCE298AB | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | Prerequisites: Permission of Program Director or Instructor. | Occ | | LAB 2.0 2.0 0.0 | Z |
| HCE298AC | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | Prerequisites: Permission of Program Director or Instructor. | Occ | | LAB 3.0 3.0 0.0 | Z |
| HCR100 | 2019 Spring | Care of the Medically Complex Child | | Course content will cover the orientation materials and fundamental concepts of foster parents caring for a medically complex child. The course will cover the common | Prerequisites: None. | HCR100 may be repeated for credit. HCR100 is graded as a P/Z for one credit and can be taken as many times as the student wishes to achieve competency of the content. | Occ | LEC 1.0 1.0 1.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | disorders and disease processes of children while providing basic knowledge to caregivers. | | | | | |
| HCR210 | 2015 Fall | Clinical Health Care Ethics | | An introduction to health care ethics with emphasis on analysis and ethical decision making at both the clinical and health policy levels for health care professionals. Theoretical foundation of bioethics reviewed within historical and contemporary contexts. | Prerequisites: A grade of C or better in ENG102 or ENG108 or permission of Instructor. | | Occ | LEC 3.0 3.0 3.0 | S |
| HCR220 | 2015 Fall | Introduction to Nursing and Health Care Systems | | Introduction to the social, political, and economic contexts of the nursing profession and health care systems in the United States. | Prerequisites: A grade of C or better in ENG102 or ENG108 or permission of Instructor. | | Occ | LEC 3.0 3.0 3.0 | S |
| HCR230 | 2023 Fall | Culture and Health | | Relation between cultures of diverse groups and health/illness. Emphasis on cross-cultural communication, including awareness of own cultural influences and indigenous and complementary healing practices. | Prerequisites: None. | Course Attribute(s): General Education Designation: Cultural Diversity - [C] General Education Designation: Global Awareness - [G] | Occ | LEC 3.0 3.0 3.0 | S |
| HCR240 | 2015 Fall | Human Pathophysiology | | Chemical, biological, biochemical, and psychological processes as a foundation for the understanding of alterations in health. The structural and functional pathophysiology of alterations in health; selected therapeutics considered. | Prerequisites: A grade of C or better in BIO202 or BIO205, or permission of Instructor. | | Occ | LEC 4.0 4.0 4.0 | S |
| HCR240AA | 2015 Fall | Human Pathophysiology I | | Chemical, biologic, biochemical, and psychological processes as a foundation for the understanding of alterations in health. The structural and functional pathophysiology of alterations in health; selected therapeutics considered. | Prerequisites: A grade of C or better in BIO202 or BIO205 or permission of Instructor. Corequisites: HCR240AB or permission of Instructor. | | Occ | LEC 2.0 2.0 2.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| HCR240AB | 2015 Fall | Human Pathophysiology II | | Chemical, biologic, biochemical, and psychological processes as a foundation for the understanding of alterations in health. The structural and functional pathophysiology of alterations in health; selected therapeutics considered. | Prerequisites: A grade of C or better in BIO202 or BIO205 or permission of Instructor. Corequisites: HCR240AA or permission of Instructor. | | Occ | LEC 2.0 2.0 2.0 | S |
| HCR298AA | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | Prerequisites: Permission of Program Director or Instructor. | | Occ | LAB 1.0 1.0 0.0 | Z |
| HCR298AB | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | Prerequisites: Permission of Program Director or Instructor. | | Occ | LAB 2.0 2.0 0.0 | Z |
| HCR298AC | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and | Prerequisites: Permission of Program Director or Instructor. | | Occ | LAB 3.0 3.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | | | | | |
| HCS100 | 2022 Fall | Fundamentals of Surgical Services | SGT100 | Preparation for the Certified Registered Central Service Technician (CRCST) role. Central Service work flow, job responsibilities, growth and development in the field, anatomy and physiology, microbiology for Central Service regulations and standards, infection prevention and control, tools for cleaning, decontamination, cleaning and decontamination, disinfection, sterile packaging and storage, processing, sterilization, management of patient care equipment, tracking systems, quality assurance, safety, communication, sterile processing for ambulatory surgery and clinics. | Prerequisites: Admission into the Hospital Central Service Technology or Surgical Technology program or permission of the Program Director. | Occ | | LEC 5.0 3.0 3.0 LAB 0.0 6.0 6.0 | T |
| HCS101 | 2017 Spring | Medical Terminology for Surgical Services | SGT101 | Medical Terminology for patient care in surgery related areas. Use of word parts, term spelling, pronunciation and abbreviations related to all surgical specialties. | Prerequisites: None. Corequisites: HCS/SGT100. | | | LEC 1.0 1.0 1.0 | S |
| HCS102 | 2022 Fall | Basic Surgical Instrumentation for Surgical Services | SGT102 | History, construction and assembly of surgical instrumentation, categories, instrument set assembly, soft tissue foundation sets, general surgery instrumentation sets. | Prerequisites: Admission into the Hospital Central Service Technology or Surgical Technology program or permission of the Program Director. | | | LEC 2.0 1.0 1.0 LAB 0.0 3.0 3.0 | T |



Occ

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| HCS107 | 2022 Fall | Equipment and Supplies for Surgical Services | SGT107 | Introduction to the surgical equipment and supplies used in surgical services areas. | Prerequisites: Admission into the Hospital Central Service Technology or Surgical Technology program or permission of the Program Director. | | | L+L 1.0 1.0 1.0 | T |
| HCS110 | 2018 Fall | Packaging and Sterilization | | Instrument identification and care, assembling hospital prepared supplies, safety procedures, asepsis principles, monitoring procedures, sterilizer operations, portable equipment, sterile goods, rotation and storage inventory and distribution systems. | Prerequisites: A grade of C or better in (HCS101 or HCS101AA and HCS101AB) or Corequisites: (HCS101 or HCS101AA and HCS101AB) or permission of Instructor. | Occ | Occ | LEC 2.0 2.0 2.0 LAB 2.0 6.0 6.0 | T |
| HCS130 | 2011 Summer I | Hospital Central Service Practicum | | Supervised student application of central service theory and laboratory skills. | Prerequisites: A grade of C or better in HCS101 or (HCS101AA and HCS101AB) or permission of Instructor. Corequisites: HCS110. | | Occ | LAB 5.0 30.0 0.0 | C |
| HCS152 | 2018 Fall | Advanced Surgical Instruments for Surgical Services | SGT152 | Surgical specialty instrumentation care and assembly of instruments to include plastic, gynecologic, urologic, basic bone and joint, head and neck, neurosurgery, cardiovascular and thoracic, microscopic, endoscopes, stapling guns, and robotics procedures. | Prerequisites: A grade of C or better in HCS/SGT102. | | | LEC 2.0 1.0 1.0 LAB 0.0 3.0 3.0 | T |
| HCS154 | 2016 Summer | Hospital Central Service Practicum | | Direct supervision of students applying knowledge of Hospital Central Service to include communication, policy and procedures, aseptic and sterile technique, instrument trays and packs, sterilization equipment and documentation performed in the clinical environment. | Prerequisites: A grade of C or better in HCS/SGT100 or permission of Instructor. Corequisites: HCS/SGT152. | Occ | | LAB 7.0 36.0 0.0 | C |
| HCS296WA | 2002 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to | Prerequisites: Completion of at least twelve (12) college | | | LAB 1.0 5.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE | credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor. | | | | |
| HCS296WB | 2002 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor. | | Occ | LAB 2.0 10.0 0.0 | Z |
| HCS296WC | 2002 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently | | Occ | LAB 3.0 15.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | enrolled in at least one class which is related to students major or career interest or with permission of Instructor. | | | | |
| HCS296WD | 2002 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor. | | Occ | LAB 4.0 20.0 0.0 | Z |
| HCS298AA | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | Prerequisites: Permission of Program Director or Instructor. | | Occ | LAB 1.0 1.0 0.0 | Z |
| HCS298AB | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and | Prerequisites: Permission of Program Director or Instructor. | | Occ | LAB 2.0 2.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | | | | | |
| HCS298AC | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | Prerequisites: Permission of Program Director or Instructor. | Occ | | LAB 3.0 3.0 0.0 | Z |
| HES100 | 2019 Spring | Healthful Living | | Health and wellness and their application to an optimal life style. Explores current topics of interest such as stress management, nutrition, fitness, and environmental health. Evaluates common risk factors associated with modern lifestyles. | Prerequisites: None. | Course Attribute(s): General Education Designation: Social and Behavioral Sciences - [SB] | Acad | LEC 3.0 3.0 3.0 | S |
| HES101 | 2011 Fall | Personal Empowerment for Effective Living | | Concepts and strategies for setting goals, decision making, communicating more effectively and problem solving to assist in behavior change strategies that lead to a healthier lifestyle. Identifies key health content areas, such as nutrition, physical activity and stress management and provides implementation strategies for all areas, as well | Prerequisites: A grade of C or better in ENG101 or ENG107. | | | LEC 3.0 3.0 3.0 | S |



Acad

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | as, provides critical analysis of health information for consumers. | | | | | |
| HES105 | 2021 Fall | Finding Health Information Online | | Development of skills and competency in accessing, evaluating, and using online medical and health information resources. | Prerequisites: None. | | Acad | LEC 1.0 1.0 1.0 | S |
| HES110 | 2011 Fall | Introduction to Global Health Issues and Disease | | Introduction to global health challenges and diseases from throughout the world. Focus is on biological and social aspects of major health issues, infectious disease, nutrition and environmental health. Includes review of groups that are at increased risk of poor health and familiarity with policies and programs designed to reduce health inequalities. | Prerequisites: None. | | Acad | LEC 3.0 3.0 3.0 | S |
| HES120 | 2023 Fall | Principles of Physical Fitness and Wellness | | Stress basic, lifetime health and skill-related components of fitness to achieve total wellness. Topics include nutrition, weight control, exercise and aging, cardiovascular and cancer risk reduction, stress management, prevention of sexually transmitted diseases, substance abuse control, and overall management of personal health and lifestyle habits to achieve the highest potential for well-being. | Prerequisites: None. | | Acad | LEC 3.0 3.0 3.0 | S |
| HES124 | 2023 Fall | Environmental Wellness | | Overview of critical global environmental challenges and the impacts of these issues to human health. Topics to be covered include issues such as transportation options, alternative energy, food production, and air and water issues. Acquire skills, knowledge, and wisdom | Prerequisites: None. | | Acad | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | specific to sustainability which may be applied in many professions, occupations, social institutions, or organizations. At an individual level, learn specific ways to conserve energy, protect your health, and help create sustainable living practices. | | | | | |
| HES144 | 2023 Fall | Strategies in Diabetes Management | | Introduction to strategies in diabetes mellitus management and prevention for individuals diagnosed with diabetes and their caretakers. Includes a physical activity component. | Prerequisites: None. | | Acad | L+L 3.0 5.0 5.0 | T |
| HES201 | 2011 Fall | Substance Abuse and Behavior | | Principles and factual bases of drug use and abuse. Physiological and socio-psychological effects of drug use and law enforcement of drug abuse. Consultants used extensively to enrich course. | Prerequisites: None. | | Acad | LEC 3.0 3.0 3.0 | S |
| HES210 | 2011 Spring | Cultural Aspects of Health and Illness | | Examines how culture influences health and illness, health care practices, barriers to health care, interactions with health care professionals, and health disparities in the U.S. | Prerequisites: None. | Course Attribute(s): General Education Designation: Cultural Diversity - [C] General Education Designation: Global Awareness - [G] | Acad | LEC 3.0 3.0 3.0 | S |
| HES282AA | 2012 Fall | Service-Learning Experience in Health Science | | Unpaid Service-Learning (SL) experience, completed with approved community partner. | Prerequisites: Permission of Instructor. | HES282AA may be repeated for a total of six (6) credit hours. Standard grading available according to procedures outlined in catalog. | Acad | LAB 1.0 1.0 0.0 | L |
| HES282AB | 2012 Fall | Service-Learning Experience in Health Science | | Unpaid Service-Learning (SL) experience, completed with approved community partner. | Prerequisites: Permission of Instructor. | HES282AB may be repeated for a total of six (6) credit hours. Standard grading available according to procedures outlined in catalog. | Acad | LAB 2.0 2.0 0.0 | L |
| HES282AC | 2012 Fall | Service-Learning Experience in Health Science | | Unpaid Service-Learning (SL) experience, completed with approved community partner. | Prerequisites: Permission of Instructor. | HES282AC may be repeated for a total of six (6) credit hours. Standard grading available according to procedures outlined in catalog. | Acad | LAB 3.0 3.0 0.0 | L |
| HES296WA | 2002 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of | Prerequisites: Completion of at least | | | LAB 1.0 5.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE | twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor. | | | | |
| HES296WB | 2002 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor. | | Occ | LAB 2.0 10.0 0.0 | Z |
| HES296WC | 2002 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: | | | LAB 3.0 15.0 0.0 | Z |



Occ

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor. | | | | |
| HES296WD | 2002 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor. | | Occ | LAB 4.0 20.0 0.0 | Z |
| HES298AA | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | Prerequisites: Permission of Program Director or Instructor. | | Acad | LAB 1.0 1.0 0.0 | Z |
| HES298AB | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by | Prerequisites: Permission of Program Director or Instructor. | | Acad | LAB 2.0 2.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | | | | | |
| HES298AC | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | Prerequisites: Permission of Program Director or Instructor. | Acad | | LAB 3.0 3.0 0.0 | Z |
| HFA101 | 2003 Fall | Introduction to Insulation | | Insulators' union history, significance and benefits. Successful and efficient labor relations. Insulation in relation to other construction trades. Safe and proper use of hand and power tools. Safe work habits, job site safety and first aid. Advanced first aid. Occupational Safety and Health Administration (OSHA) safety training and regulations. | Prerequisites: Registered Apprentice status with the Heat Frost and Asbestos Workers Joint Apprenticeship Training Committee (JATC) or permission of the Apprenticeship Coordinator. | | | LEC 5.0 5.0 5.0 | S |
| HFA102 | 2018 Fall | Insulation Tools and Equipment: Use and Care | | Identify tools and equipment used for installation of mechanical insulation, finishes, and accessories. Proper methods for use and care of various tools and equipment. | Prerequisites: Registered apprentice status or permission of the Apprenticeship Coordinator. | Occ | | L+L 3.0 3.0 3.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| HFA110 | 2003 Fall | Math for Heat and Frost Technology | | Fundamentals of the metric system. Fundamental operations with whole numbers, common fractions, decimals, percentages and ratios and proportions. Algebraic expressions, operations, powers and roots. Compute measurements of geometric figures. | Prerequisites: Registered Apprentice status with the Heat Frost and Asbestos Workers Joint Apprenticeship Training Committee (JATC) or permission of the Apprenticeship Coordinator. | | Occ | LEC 5.0 5.0 5.0 | S |
| HFA115 | 2003 Fall | Fundamental Insulation Skills: Piping I | | Principles of insulation. Materials and methods of insulation. Insulating straight piping. Application of specific types of insulation. Insulation irregular surfaces. Seal and finish insulated pipe. | Prerequisites: Registered Apprentice status with the Heat Frost and Asbestos Workers Joint Apprenticeship Training Committee (JATC) or permission of the Apprenticeship Coordinator. | | Occ | LEC 5.0 5.0 5.0 | S |
| HFA150 | 2003 Fall | Shop Fabrication: Layout and Pattern-making for Insulators I | | Shop fabrication for the heat, frost and asbestos trades related to insulation. Draw, bisect, trisect, divide and construct geometric linear and curvilinear geometric constructions. Layout and design templates and patterns for tees, valves, flanges, and endcaps. | Prerequisites: Registered Apprentice status with the Heat Frost and Asbestos Workers Joint Apprenticeship Training Committee (JATC) or permission of the Apprenticeship Coordinator. | | Occ | LEC 5.0 5.0 5.0 | S |
| HFA204 | 2018 Fall | Scaffolding for Insulators | | Occupational Safety and Health Association (OSHA) Scaffolding Standard Subpart L, scaffolding terms, safety, erection, and various types of scaffolding used. Aerial lift operation and safety. | Prerequisites: Registered apprenticeship status or permission of the Apprenticeship Coordinator. | | Occ | L+L 2.0 2.0 2.0 | T |
| HFA215 | 2003 Fall | Fundamental Insulation Skills: Piping II | | Insulation for piping for cryogenic service. Insulation materials, coverings, finishes, and sealants for underground piping. Measure and cut rigid insulation using hand and table saws. Score block and board. Insulation of vertical and horizontal cylinders, | Prerequisites: A grade of C or better in HFA115. | | | LEC 5.0 5.0 5.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | finished heads and finished bodies using wired, bands, pins, stick clips, and washers. Insulate duct work in an air-handling system using fibrous board, duct wrap and flexible sheet | | | | | |
| HFA250 | 2003 Fall | Shop Fabrication: Layout and Pattern-making for Insulators II | | Shop fabrication for the heat, frost and asbestos trades related to insulation. Advanced layout patterns for long and short radius elbows, cones, bevels, and tank heads. Specifications for selecting fittings and structures. Numbers and sizes of miters and gores | Prerequisites: A grade of C or better in HFA150. | | | LEC 5.0 5.0 5.0 | S |
| HFA260 | 2003 Fall | Blueprints and Firestopping | | Contents of a set of plans. Major divisions in a set of drawings and title blocks. Bidding requirements, contract forms and conditions of contract. Architect's scale. Architectural, isometric, structural, plumbing, electrical, mechanical, and ductwork drawings. Symbols and abbreviations. Heating, Ventilating, and Air Conditioning system operations. Calculate materials for insulation. Firestopping systems, materials, and installation. | Prerequisites: Registered Apprentice status with the Heat Frost and Asbestos Workers Joint Apprenticeship Training Committee (JATC) or permission of the Apprenticeship Coordinator. | Occ | Occ | LEC 5.0 5.0 5.0 | S |
| HFA270 | 2003 Fall | Supervision for Foremen | | Foreman's role on the job site. Management and leadership using functional, adaptive and technical skills. Effective supervision and communication skills. Maslow's Motivational Theory. Short term motivators. Foreman responsibilities in area of performance and production. Traits and habits of effective leaders | Prerequisites: Registered Apprentice status with the Heat Frost and Asbestos Workers Joint Apprenticeship Training Committee (JATC) or permission of the Apprenticeship Coordinator. | | Occ | LEC 5.0 5.0 5.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Leadership styles and team building. Labor/contractor cooperation | | | | | |
| HFA298AA | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | Prerequisites: Permission of Program Director or Instructor. | | Occ | LAB 1.0 1.0 0.0 | Z |
| HFA298AB | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | Prerequisites: Permission of Program Director or Instructor. | | Occ | LAB 2.0 2.0 0.0 | Z |
| HFA298AC | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of | Prerequisites: Permission of Program Director or Instructor. | | Occ | LAB 3.0 3.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | | | | | |
| HIM101 | 2023 Fall | Introduction to Health Information Management | | Provides detailed investigation of the history, development, and evolution of the health information management (HIM) profession. Topics include health care delivery systems, HIM career paths, HIM functions, and HIM in acute and alternative care settings. | Prerequisites: Acceptance into the (Medical Coding: Hospital-Based, or Medical Billing and Coding: Physician-Based, or Health Information Technology) program, and permission of Program Director. | | | LEC 3.0 4.0 3.7 | S |
| HIM103 | 2020 Fall | Long Term Care Delivery | | Provides a survey of the Long-Term Care (LTC) continuum and the health information management function in long term care. Topics include long term care services provided in acute, ambulatory, and alternative care settings; LTC ethics and policy considerations; financial management; and special LTC populations. | Prerequisites: Acceptance into the Health Information Technology program and permission of Program Director. | Occ | | LEC 4.0 4.0 4.0 | S |
| HIM105 | 2018 Spring | Computers in Healthcare and Health Record Systems | | Introduction to computer applications in healthcare settings including electronic health records, health record content, structure, and origin of clinical information for various healthcare settings. A basic review of federal, state, and organizational documentation guidelines. Legal and ethical issues applicable to health information documentation and coding practices. | Prerequisites: (Acceptance into either the Medical Coding: Hospital-Based or the Medical Billing and Coding: Physician-Based program) and a grade of C or better in HCC130 or permission of Program Director. | Occ<br><br>Occ | | LEC 2.0 2.0 2.0 | S |
| HIM106 | 2020 Fall | Legal and Ethical Aspects of Health Information Management | | Overview of legal and ethical principles in health care and health information management. Topics include | Prerequisites: Acceptance into the Health Information Technology program | | | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | federal and state court systems; legal terminology; health care law; privacy, confidentiality, and security; release of information guidelines; ethics, bioethics, and ethical dilemmas. | and permission of Program Director. | | | | |
| HIM160 | 2020 Fall | Health Data and Content | | Introduction to data collection methods for health information systems. Overview of data structure, content, and standards, datasets and databases used in various health care settings, and registries and indexes. | Prerequisites: A grade of C or better in (BPC110 or CIS105) or permission of Program Director. | | | L+L 2.0 3.0 3.0 | T |
| HIM180 | 2020 Fall | Introduction to Medical Billing and Reimbursement | | Overview of the medical billing profession, the revenue management process, and federal billing guidelines. Topics include Medicare, Medicaid, third party payers, management care models, and national insurance schemes. | Prerequisites: Permission of Program Director. | Occ | | LEC 2.0 2.0 2.0 | S |
| HIM181 | 2020 Fall | Medical Claims Processing | | Provides in depth analysis of the medical claims process in ambulatory care settings. Topics include electronic data interchange, claims management, confidentiality, data retention, and the claims review and appeals process. | A grade of C or better required in all Prerequisites. Prerequisites: (BPC110 and HIM180) or permission of Program Director. Prerequisites or Corequisites: HIM208 or permission of Program Director. | Occ | | L+L 3.0 5.0 5.0 | T |
| HIM182 | 2011 Fall | Human Diseases for Coding in Long Term Care Settings | | Overview of diseases commonly treated in long term, home health, and hospice settings. Systems approach to causes, signs, symptoms, manifestations, diagnosis, and treatment of these diseases as required for accurate diagnostic coding. | Prerequisites: A grade of C or better in (BIO160 and HCC146) or permission of Program Director. | Occ | Occ | LEC 2.0 2.0 2.0 | S |
| HIM183 | 2020 Fall | Diagnostic Coding in Long Term Care Settings | | Introduction to the International Classification of Diseases (ICD) in long term | A grade of C or better required in all Prerequisites. | | Occ | L+L 4.0 6.0 6.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | care, home health and hospice settings. Topics include principles for diagnostic coding, standards of ethical coding, and diagnostic coding for reimbursement and coding compliance. | Prerequisites: (BIO201 and HCC145) or permission of Program Director. Prerequisites or Corequisites: HIM200 or permission of Program Director. | | | | |
| HIM200 | 2020 Fall | Human Pathophysiology and Pharmacology for Health Information Management (HIM) Professionals | | Surveys common disease states and conditions that impact each of the major body systems and the reproductive process. Explores how the study of diseases, conditions, and treatments are connected to the health information management function. Topics include disease etiology; signs and symptoms of diseases and conditions; prognosis of diseases and conditions; and pharmacological concepts related to drug nomenclatures, sources of drugs, drug actions and dosage, and routes of drug administration. | Prerequisites: A grade of C or better in (HCC145 and BIO201) or permission Program Director. | Occ | | LEC 3.0 4.0 3.7 | S |
| HIM203 | 2022 Fall | Healthcare Statistics and Data Analytics | | Emphasizes the role of Health Information Management professionals in calculating, mining, and reporting healthcare statistics for data analytics, research, quality assurance, financial, and other purposes. Topics include health statistics, morbidity, mortality, quality resource management, and research design. | Prerequisites: A grade of C or better in (HIM160 and MAT112) or permission of Program Director. | | Occ | L+L 3.0 4.0 4.0 | T |
| HIM205 | 2020 Fall | Managing Health Information in Long Term Care Settings | | Provides an in depth analysis of the health information management function in Long Term Care (LTC) settings. Topics include long term care health record systems; LTC regulatory compliance standards and guidelines; | Prerequisites: A grade of C or better in HIM103. Corequisites: BPC110 or permission of Program Director. | | Occ | L+L 2.0 4.0 4.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | common technologies used in LTC; and statistical and data analytics in LTC. | | | | | |
| HIM207 | 2020 Fall | Health Information Organizational Resource Management | | Provides an overview of principles and practices essential to the efficient use of human, financial, and physical resources within health information management services. Topics include team building, planning, leading, organizing, directing, and controlling. | Prerequisites: A grade of C or better in (HIM101 and HIM106) or permission of Program Director. | | Occ | LEC 3.0 3.0 3.0 | S |
| HIM208 | 2022 Fall | ICD-CM Diagnostic Coding | | Introduction to the International Classification of Diseases, Clinical Modification (ICD-CM) coding system. Topics include application of current ICD-CM guidelines and conventions for symptoms, signs, and abnormal clinical and laboratory findings, diseases, conditions, and external causes of morbidity in inpatient and outpatient settings. | A grade of C or better required in all Prerequisites. Prerequisites: (BIO202, HCC145, and HIM200) or permission of Program Director. Prerequisites or Corequisites: HIM180 or permission of Program Director. | Occ | | L+L 2.0 4.0 4.0 | T |
| HIM209 | 2022 Fall | Procedural Coding Systems for Non-Coders | | Surveys major procedural coding systems used in acute, ambulatory, and alternative care settings. Structure, content, and guidelines for the current International Classification of Diseases, Procedure Coding System (ICD-PCS), Current Procedural Terminology (CPT), and Healthcare Common Procedure Coding System (HCPCS) classification systems are explored. Topics include purpose and function of procedural coding; coding guidelines and conventions; | A grade of C or better required in all Prerequisites. Prerequisites: HIM200 and BIO202. Prerequisites or Corequisites: HIM208 or permission of Program Director. | Occ | | L+L 3.0 6.0 6.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | and coding accuracy, totality, and sequencing. | | | | | |
| HIM210 | 2022 Fall | ICD-PCS Coding and ICD Applications | | Introduction to the International Classification of Diseases, Procedure Coding System (ICD-PCS). Topics include application of the current ICD-PCS guidelines and conventions for procedures in inpatient settings and coding technologies. | A grade of C or better required in all Prerequisites. Prerequisites: BIO202 and HIM200. Prerequisites or Corequisites: HIM208 or permission of Program Director. | | | L+L 2.0 4.0 4.0 | T |
| HIM211 | 2020 Fall | Advanced Applications of Coding and Reimbursement | | Provides foundation for advanced coding application including the use of references, source documents, and technology. Topics include Uniform Hospital Discharge Data Set; diagnostic-related groups; federal regulations for hospital-based settings; coding conventions for home health, long term care, rehabilitation, and other health care settings; and the use of codes for administrative, reimbursement, marketing, and regulatory purposes. | Prerequisites: A grade of C or better in (HIM208 and HIM210) or permission of Program Director. | Occ | Occ | L+L 4.0 6.0 6.0 | T |
| HIM213 | 2022 Fall | CPT and HCPCS Coding | | Provides students with the foundation for using the Current Procedural Terminology (CPT) and the Healthcare Common Procedure Coding System (HCPCS). Topics include coding guidelines, healthcare reimbursement, coding technologies, ethical coding, and compliance issues. | Prerequisites: A grade of C or better in BIO202, HCC145, HIM200, and HIM208. | | Occ | L+L 3.0 6.0 6.0 | T |
| HIM215 | 2023 Fall | Physician-Based Billing and Coding Seminar | | Guidance in the development of physician-based billing and coding compliance programs. | A grade of C or better required in all Prerequisites. Prerequisites: HIM213 or permission of Program Director. | | | LEC 1.0 1.0 1.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | Prerequisites or Corequisites: HIM211, current CPR at BLS Healthcare Provider Level through the American Heart Association, and permission of Program Director. Corequisites: HIM216 or permission of Program Director. | | | | |
| HIM216 | 2023 Fall | Professional Practice in Physician-Based Billing and Coding | | Practical application of billing and coding guidelines, conventions, and regulations under the supervision of a preceptor in an ambulatory care setting. | A grade of C or better required in all Prerequisites. Prerequisites: HIM213 or permission of Program Director. Prerequisites or Corequisites: HIM211, current CPR at BLS Healthcare Provider Level through the American Heart Association, and permission of Program Director. Corequisites: HIM215 or permission of Program Director. | | Occ | LAB 1.0 5.0 0.0 | C |
| HIM219 | 2022 Fall | Health Information Management Systems | | Overview of the fundamental concepts, terminology, and structure of health information systems with an emphasis on applications used to manage electronic health information. Topics include health informatics; health information systems; electronic claims processing; electronic health records; electronic data interchange; and privacy, security, and confidentiality. | Prerequisites: A grade of C or better in HIM160, and (BPC110 or CIS105). | | Occ | L+L 3.0 3.0 3.0 | T |
| HIM221 | 2023 Fall | Medical Coding Seminar | | Guides students in the development of hospital-based coding compliance programs. Explores career | A grade of C or better required in all Prerequisites. Prerequisites: HIM213 or permission of | | | LEC 1.0 1.0 1.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | development tools for medical billers and coders. | Program Director. Prerequisites or Corequisites: HIM211 or permission of Program Director. Corequisites: HIM222 or permission of Program Director. | | | | |
| HIM222 | 2023 Fall | Professional Practice in Medical Coding | | Practical application of coding guidelines, conventions, and regulations under the supervision of a preceptor in an acute care setting. | A grade of C or better required in all Prerequisites. Prerequisites: HIM213 or permission of Program Director. Prerequisites or Corequisites: HIM211, current CPR at BLS Healthcare Provider Level through the American Heart Association, and permission of Program Director. Corequisites: HIM221 or permission of Program Director. | | Occ | LAB 1.0 5.0 0.0 | C |
| HIM225 | 2022 Fall | Health Data Analytics | | Provides students with integral tools and skills to analyze data commonly used in healthcare provision. Topics include data analysis, organization, and preparation tools; statistical techniques and variables; study design; benchmarking; and quality and performance improvement. | Prerequisites: A grade of C or better in (CIS114DE and HIM203). | | Occ | L+L 3.0 4.0 4.0 | T |
| HIM231 | 2022 Fall | Health Data Management Seminar | | Designed for students pursuing skills and knowledge in health data management. Topics include career development, team building, health data systems management and preparation for the professional certification exam. | Prerequisites: A grade of C or better in CIS114DE, HIM203, HIM208, and HIM209. Corequisites: HIM232. | HIM231 students must participate in the PPE (Professional Practice Experience) Orientation. Consult with Program Director or Instructor. | Occ | LEC 1.0 3.0 2.4 | S |
| HIM232 | 2022 Fall | Health Data Management Professional Practice | | Practical application of health data management knowledge and skills under the | Prerequisites: A grade of C or better in CIS114DE, HIM203, | HIM232 students must participate in the PPE (Professional Practice | Occ | LAB 1.0 5.0 0.0 | C |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | supervision of a preceptor in an acute, ambulatory, and/or alternative care setting. | HIM208, HIM209 and current CPR certification at Basic Life Support (BLS) Healthcare Provider level through the American Heart Association. Corequisites: HIM231. | Experience) Orientation. Consult with Program Director or Instructor. | | | |
| HIM233 | 2022 Fall | Revenue Cycle Management Seminar | | Prepares students for the workforce in the field of revenue cycle management. Topics include strategies for team building, project collaboration, career development, and preparation and review for professional exam. | Prerequisites: A grade of C or better in (HIM208 and HIM210) or permission of Program Director. Corequisites: HIM234 and permission of Program Director. | Student must participate in the PPE (Professional Practice Experience) Orientation. Consult with Program Director or Instructor. | Occ | LEC 1.0 3.0 2.4 | S |
| HIM234 | 2022 Fall | Revenue Cycle Data Management Professional Practice | | Practical application of revenue cycle management knowledge and skills under the supervision of a preceptor in an acute, ambulatory, and/or alternative care setting. | Prerequisites: A grade of C or better in (HIM208 and HIM210) or permission of Program Director, and CPR at BLS Healthcare Provider level through the American Heart Association. Corequisites: HIM233 and permission of Program Director. | Current CPR certification at BLS Healthcare Provider Level through the American Heart Association required prior to placement. Student must participate in the PPE (Professional Practice Experience) Orientation. Consult with Program Director or Instructor. | Occ | LAB 1.0 5.0 0.0 | C |
| HIM298AA | 2006 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | Prerequisites: Permission of Program Director or Instructor. | | Occ | LAB 1.0 1.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| HIM298AB | 2006 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | Prerequisites: Permission of Program Director or Instructor. | | Occ | LAB 2.0 2.0 0.0 | Z |
| HIM298AC | 2006 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | Prerequisites: Permission of Program Director or Instructor. | | Occ | LAB 3.0 3.0 0.0 | Z |
| HIS100 | 2022 Fall | History of Western Civilization to Middle Ages | | Survey of the origin and development of Western civilization and its institutions from prehistory through the Ancient World and the Middle Ages. | Prerequisites: None. | | Acad | LEC 3.0 3.0 3.0 | S |
| HIS101 | 2023 Fall | History of Western Civilization Middle Ages to 1789 | | Survey of the history of the Western world from the emergence of Western civilization in the Middle Ages to the start of the French Revolution. | Prerequisites: None. | | Acad | LEC 3.0 3.0 3.0 | S |
| HIS102 | 2023 Fall | History of Western Civilization 1789 to Present | | Survey of the history of the Western world from the | Prerequisites: None. | | Acad | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | French Revolution to the present. | | | | | |
| HIS103 | 2016 Fall | United States History to 1865 | | The political, economic, and social development of the United States from the Pre-Columbian period through the end of the Civil War (1865). | Prerequisites: None. | Course Attribute(s): General Education Designation: Historical Awareness - [H] General Education Designation: Humanities, Arts and Design - [HU] General Education Designation: Social and Behavioral Sciences - [SB] Arizona Shared Unique Number SUN# 1131 | Acad | LEC 3.0 3.0 3.0 | S |
| HIS104 | 2016 Fall | United States History 1865 to Present | | The political, economic, and social development of United States from 1865 to the present time. | Prerequisites: None. | Course Attribute(s): General Education Designation: Historical Awareness - [H] General Education Designation: Social and Behavioral Sciences - [SB] Arizona Shared Unique Number SUN# 1132 | Acad | LEC 3.0 3.0 3.0 | S |
| HIS105 | 2015 Spring | Arizona History | | The prehistoric and contemporary Native American experience, Spanish colonial times, the Mexican National period, the U.S. federal territorial years, and Arizona's political and economic development during the twentieth century. | Prerequisites: None. | Course Attribute(s): General Education Designation: Historical Awareness - [H] General Education Designation: Social and Behavioral Sciences - [SB] | Acad | LEC 3.0 3.0 3.0 | S |
| HIS106 | 2023 Fall | Southwest History | | Historical survey of the American Southwest including ecological/environment, political, economic, religious and social developments. Includes the unique role of the region in national and global events. | Prerequisites: None. | | Acad | LEC 3.0 3.0 3.0 | S |
| HIS107 | 2022 Fall | Selected Issues in History | | In-depth survey of selected issues in history. Includes examination of the relationships among events, ideas, and artifacts relevant to the selected topic. Incorporates various historical lenses pertinent to the topic. | Prerequisites: None. | | Acad | LEC 3.0 3.0 3.0 | S |
| HIS108 | 2010 Spring | United States History 1945 to the Present | | Survey of American history from 1945 to the present. | Prerequisites: None. | Course Attribute(s): General Education Designation: | Acad | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Focuses on the political, social, economic and cultural history of the United States from the end of World War II to the present time. Includes domestic developments and foreign policy | | Historical Awareness - [H] General Education Designation: Humanities, Arts and Design - [HU] General Education Designation: Social and Behavioral Sciences - [SB] | | | |
| HIS109 | 2024 Fall | Mexican American History and Culture | | Examination of the origins and development of Mexican American peoples. Including culture, history and contributions within the United States. Emphasis on educational, social, and economic conditions of Mexican Americans of the southwest. | Prerequisites: None. | | Acad | LEC 3.0 3.0 3.0 | S |
| HIS110 | 2024 Fall | World History to 1500 | | A global survey of the economic, social, cultural, environmental, and political elements of world history to 1500. | Prerequisites: None. | | Acad | LEC 3.0 3.0 3.0 | S |
| HIS111 | 2024 Fall | World History 1500 to the Present | | A survey of the economic, social, cultural, and political elements of world history from 1500 to the present. | Prerequisites: None. | | Acad | LEC 3.0 3.0 3.0 | S |
| HIS113 | 2023 Fall | History of Eastern Civilizations to 1850 | | An examination of the development of civilizations, religions and philosophies in the Near East, India, Far East, and Southeast Asia from ancient times to the mid-nineteenth century. | Prerequisites: None. | | Acad | LEC 3.0 3.0 3.0 | S |
| HIS114 | 2009 Fall | History of Eastern Civilizations 1850 to Present | | Examination of characteristics and development of civilizations of Middle East, India, Far East, and Southeast Asia, from mid-nineteenth century to present | Prerequisites: None. | Course Attribute(s): General Education Designation: Global Awareness - [G] General Education Designation: Historical Awareness - [H] General Education Designation: Humanities, Arts and Design - [HU] General Education Designation: Social and Behavioral Sciences - [SB] | Acad | LEC 3.0 3.0 3.0 | S |
| HIS140 | 2023 Fall | American Indian History | AIS140 | Survey of American Indian history with emphasis on the last 200 years. Focuses on | Prerequisites: None. | | Acad | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | cultural, economic, political and social continuity and changes. Topics include how federal policies impacted and were shaped by Indigenous peoples and how Indigenous individuals, communities, and nations have maintained cultural identity and sovereignty. | | | | | |
| HIS145 | 2023 Fall | History of Mexico | | Survey of the major forces that shaped the history of Mexico and its culturally diverse communities from pre-Columbian times to the present. Also examines how these historical forces continue to shape contemporary Mexican society and its place within the world. | Prerequisites: None. | | Acad | LEC 3.0 3.0 3.0 | S |
| HIS170 | 2023 Spring | American Indian History of the Southwest | AIS170 | Covers history of American Indian Peoples of the Southwestern United States from pre-European contact era to the present. Includes historical events, the development and implementation of non-Indigenous policies and their impact on American Indian Peoples in these areas, and contemporary issues of importance. | Prerequisites: None. | | Acad | LEC 3.0 3.0 3.0 | S |
| HIS173 | 2024 Fall | United States (U.S.) Military History 1603 to Present | | Examines the history of the United States (U.S.) in war and peace from the colonial era to the present and the role of the military in the nation's development. | Prerequisites: None. | | Acad | LEC 3.0 3.0 3.0 | S |
| HIS175 | 2019 Spring | Global History of World War II | | Global survey of World War II (WWII), focusing on its origins, major military confrontations and events, conclusion, and historical significance. | Prerequisites: None. | | Acad | LEC 3.0 3.0 3.0 | S |
| HIS190 | 2023 Fall | Environmental History | | Historical overview of the interactions between humans | Prerequisites: None. | | Acad | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | and the natural environment in various time periods and regions around the world. | | | | | |
| HIS201 | 2023 Fall | History of Women in America | | Introduction to women's history from the colonial period to the present. Explores changes and developments which have influenced the lives of women. | Prerequisites: None. | | Acad | LEC 3.0 3.0 3.0 | S |
| HIS203 | 2014 Spring | African-American History to 1865 | | History and cultural heritage of African-Americans from their beginnings in Ancient Africa through the experience of chattel slavery in the Americas to their eventual emancipation and participation in the American Civil War. | Prerequisites: None. | Course Attribute(s): General Education Designation: Cultural Diversity - [C] General Education Designation: Historical Awareness - [H] General Education Designation: Humanities, Arts and Design - [HU] General Education Designation: Social and Behavioral Sciences - [SB] | Acad | LEC 3.0 3.0 3.0 | S |
| HIS204 | 2023 Fall | African-American History 1865 to Present | AFR204 | The multifaceted history and cultural heritage of African-American communities since the Civil War, presented within the broader context of U.S. history. This course explores the social, economic, political, and cultural history of African-American communities, including the historical and cultural impacts of slavery and discrimination, and the collective struggle for freedom, equality, and self-determination throughout U.S. history. | Prerequisites: None. | | Acad | LEC 3.0 3.0 3.0 | S |
| HIS209 | 2023 Spring | The Chicana/o in 20th and 21st Century America | | Analysis of the 20th and 21st century Chicano experience. Interdisciplinary approach to contemporary Mexican American history and culture in the borderlands. | Prerequisites: None. | | Acad | LEC 3.0 3.0 3.0 | S |
| HIS212 | 2019 Spring | History of Religion | | Survey of the historical contexts in which the major religions have emerged and evolved. Focuses on social and political events throughout | Prerequisites: None. | Course Attribute(s): General Education Designation: Historical Awareness - [H] General Education Designation: | Acad | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | history and their impact on religious beliefs and practices. | | Humanities, Arts and Design - [HU] | | | |
| HIS240 | 2008 Fall | History of Islamic Civilization from the 6th Century to 1800 | | Overview of the historical, economic, political, and cultural conditions that brought about the various transformations within the Arab/Islamic world; examination of the impact and interaction of the Islamic civilization with other peoples | Prerequisites: None. | | Acad | LEC 3.0 3.0 3.0 | S |
| HIS241 | 1994 Fall | Latin American Civilization in the Colonial Period | | A survey of the political, economic, and social forces which molded Latin American civilization in the Colonial Period | Prerequisites: None. | Course Attribute(s): General Education Designation: Historical Awareness - [H] General Education Designation: Social and Behavioral Sciences - [SB] | Acad | LEC 3.0 3.0 3.0 | S |
| HIS242 | 1994 Fall | Latin American Civilization in the Post-Colonial Period | | A survey of the political, economic, and social forces which molded Latin American civilization in the period of the development of Republics | Prerequisites: None. | Course Attribute(s): General Education Designation: Global Awareness - [G] General Education Designation: Historical Awareness - [H] General Education Designation: Social and Behavioral Sciences - [SB] | Acad | LEC 3.0 3.0 3.0 | S |
| HIS251 | 2014 Spring | History of England to 1700 | | History of England to 1660. Analysis of the major political, cultural, social, and intellectual, and social factors in English historical development from its earliest times till 1660. | Prerequisites: None. | Course Attribute(s): General Education Designation: Historical Awareness - [H] General Education Designation: Humanities, Arts and Design - [HU] | Acad | LEC 3.0 3.0 3.0 | S |
| HIS252 | 2014 Spring | History of England 1700 to Present | | Analysis of the major political, cultural, social, and intellectual factors in English historical development from 1650 to present. | Prerequisites: None. | Course Attribute(s): General Education Designation: Historical Awareness - [H] General Education Designation: Humanities, Arts and Design - [HU] | Acad | LEC 3.0 3.0 3.0 | S |
| HIS273 | 2012 Summer I | US Experience in Vietnam 1945 - 1975 | | Survey of the US experience in Vietnam, 1945-1975, in view of political, economic, and social forces of the Cold War | Prerequisites: None. | Course Attribute(s): General Education Designation: Historical Awareness - [H] General Education Designation: Social and Behavioral Sciences - [SB] | Acad | LEC 3.0 3.0 3.0 | S |
| HIS277 | 2012 Spring | The Modern Middle East | | Survey of the political, religious and economic | Prerequisites: None. | Course Attribute(s): General Education Designation: Global | Acad | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | development of the Middle East since 1500. Emphasis on the decline of the Moslem empire(s), the resurgence of contemporary Pan- Arabism, the Palestinian-Israeli question, jihadism, fundamentalist terrorism, the Taliban and Al Qaeda, and the impact of oil production on the region and the rest of the world. | | Awareness - [G] General Education Designation: General Education Designation: Historical Awareness - [H] General Education Designation: Social and Behavioral Sciences - [SB] | | | |
| HIS279 | 2020 Fall | Creating and Telling Fact-Based Historical Stories | STO279 | Creating and telling fact-based stories and stories from history. | Prerequisites: A grade of C or better in EDU/HUM/STO292. | HIS/STO279 may be repeated for a total of six (6) credit hours. | Acad | LEC 3.0 3.0 3.0 | S |
| HIS282AA | 2014 Summer | Service-Learning Experience in History | | Unpaid Service-Learning (SL) experience, completed with approved community partner. | Prerequisites: Permission of Instructor. | HIS282AA may be repeated for a total of six (6) credit hours. Standard grading available according to procedures outlined in catalog. | Acad | LAB 1.0 1.0 0.0 | L |
| HIS282AB | 2014 Summer | Service-Learning Experience in History | | Unpaid Service-Learning (SL) experience, completed with approved community partner. | Prerequisites: Permission of Instructor. | HIS282AB may be repeated for a total of six (6) credit hours. Standard grading available according to procedures outlined in catalog. | Acad | LAB 2.0 2.0 0.0 | L |
| HIS282AC | 2014 Summer | Service-Learning Experience in History | | Unpaid Service-Learning (SL) experience, completed with approved community partner. | Prerequisites: Permission of Instructor. | HIS282AC may be repeated for a total of six (6) credit hours. Standard grading available according to procedures outlined in catalog. | Acad | LAB 3.0 3.0 0.0 | L |
| HIS296WA | 2023 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest | | Acad | LAB 1.0 5.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | or with permission of the Instructor. | | | | |
| HIS296WB | 2023 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor. | | Acad | LAB 2.0 10.0 0.0 | Z |
| HIS296WC | 2023 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor. | | Acad | LAB 3.0 15.0 0.0 | Z |
| HIS296WD | 2002 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or | | Occ | LAB 4.0 20.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor. | | | | |
| HIS298AA | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. | Prerequisites: Permission of Program Director or Instructor. | Course Attribute(s): COMMON COMPETENCY COURSE | Acad | LAB 1.0 1.0 0.0 | Z |
| HIS298AB | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | Prerequisites: Permission of Program Director or Instructor. | | Acad | LAB 2.0 2.0 0.0 | Z |
| HIS298AC | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and | Prerequisites: Permission of Program Director or Instructor. | | Acad | LAB 3.0 3.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | | | | | |
| HLC130 | 2023 Fall | Fundamentals in Health Care Delivery | | Overview of current and recent development of health care professions, including career and labor market information, health care delivery systems, third party payers, and facility ownership. Health organization structure, patient rights and quality care. Health care and life values. Definition and importance of values, ethics, and essential behaviors in the workplace. Worker rights and responsibilities. Healthful living practices to include nutrition, stress management and exercise. Occupational Safety and Health Administration (OSHA) standard precautions and facility safety. Use of principles of body mechanics in daily living activities. Basic communication skills which facilitate inter-professional teamwork in the health care setting. Focus on development of personal communication skills and an understanding of how effective communication skills promote teamwork. Focus on intercultural communication strategies. | Prerequisites: Admission to program, and successful completion of RDG100 or higher or appropriate reading placement into CRE101. | Students must earn a grade of C or better for all courses required within the program. | CLK | 30 | |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| HLC145 | 2023 Fall | Medical Terminology for Health Care Professionals | | Medical terminology used in health care, with special care populations and in special services. Body systems approach to terms related to structures, functions, diseases, procedures, and diagnostic tests. Building and analyzing terms using word parts. Medical abbreviations, symbols, and term spelling. | Prerequisites: A grade of C or better is required in HLC130. | | | 102 | |
| HMC100 | 2023 Fall | Medical Billing and Coding Examination Review | | This course reviews separate subjects that will be taught in preparation for the National Certified Professional Coder (CPC) Examination administered through the American Academy of Professional Coders (AAPC). | Prerequisites: A grade of C or better is required in HMC213 or permission of Instructor. | CLK | CLK | 48 | |
| HMC105 | 2023 Fall | Computers in Healthcare and Health Record Systems | | Introduction to computer applications in healthcare settings including electronic health records, health record content, structure, and origin of clinical information for various healthcare settings. A basic review of federal, state, and organizational documentation guidelines. Legal and ethical issues applicable to health information documentation and coding practices. | Prerequisites: A grade of C or better is required in HMC181 and HMC213. | | CLK | 36 | |
| HMC180 | 2023 Fall | Introduction to Medical Billing and Reimbursement | | This course provides an overview of the medical billing profession and the revenue management process. Topics include Medicare, Medicaid, third-party payers, managed care models, and national insurance schemes. | Prerequisites: A grade of C or better is required in HMC200. | | CLK | 48 | |
| HMC181 | 2023 Fall | Medical Claims Processing | | This course provides an in-depth analysis of the medical claims process in ambulatory care settings. Topics include electronic data interchange, | Prerequisites: A grade of C or better is required in HMC180. | | CLK | 54 | |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | claims management, confidentiality, data retention, and the claims review and appeals process. | | | | | |
| HMC200 | 2020 Fall 1 | Human Pathophysiology and Pharmacology for HMC | | This course surveys common disease states and conditions that impact each of the major body systems and the reproductive process. Topics include disease etiology; signs and symptoms of diseases and conditions; prognosis of diseases and conditions; and pharmacological concepts related to drug nomenclatures, sources of drugs, drug actions and dosage, and routes of drug administration. | Prerequisites: A grade of C or better is required in HLC130. | CLK | | 180 | |
| HMC208 | 2020 Fall 1 | ICD-CM Diagnostic Coding | | This course introduces students to the International Classification of Diseases, Clinical Modification (ICD-CM) coding system. Topics include application of current ICD-CM guidelines and conventions for symptoms, signs, and abnormal clinical and laboratory findings, diseases, conditions, and external causes of morbidity in inpatient and outpatient settings. | Prerequisites: A grade of C or better is required in ISP110PC. | CLK | | 90 | |
| HMC213 | 2023 Fall | CPT and HCPCS Coding | | This course provides students with the foundation for using the Current Procedural Terminology (CPT) and the Healthcare Common Procedure Coding System (HCPCS) coding systems. Topics include coding guidelines, healthcare reimbursement, coding technologies, ethical coding, and compliance issues. | Prerequisites: A grade of C or better is required in HMC208. | | CLK | 216 | |
| HON190 | 2018 Spring | The Honors Experience | | Interdisciplinary studies of selected issues confronting | Prerequisites: Admission to the | Course Attribute(s): General Education Designation: | Acad | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | the individual and society and overall human experience. Critical inquiry of specific themes from a wide variety of academic viewpoints. Comprehensive and interdisciplinary review of global, historical, and cultural trends, supplemented by readings and discussion. Varied content due to changing honors forum themes and issues. | college honors program or permission of Instructor. | Humanities, Arts and Design - [HU] | | | |
| HON201 | 2014 Summer | Leadership Development: Historical and Contemporary Perspectives | | Interdisciplinary study of leadership focusing on development of leadership skills. | Prerequisites: Admission to the college honors program or permission of Instructor. | | Acad | LEC 3.0 3.0 3.0 | S |
| HRC101 | 2016 Summer | Overview of Healthcare Compliance | | Introduction and overview of healthcare compliance; evolution of the field as a profession. Exploration of federally legislated mandates for a Compliance Program. Program elements. Organizational steps for implementation in specific settings. | Prerequisites: None. | | Occ | LEC 1.0 1.0 1.0 | S |
| HRC228 | 2022 Fall | Healthcare Industry Regulation | | Comprehensive review and study of laws that regulate the healthcare delivery industry including fraud and abuse, patient privacy, Protected Health Information (PHI) and electronic Protected Health Information (ePHI), and occupational safety for workforce members, patients, and visitors. | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| HRC230 | 2022 Fall | Healthcare Corporate Compliance Program Design | | Creation, management, and evaluation of all aspects of a formal health care corporate compliance program. Compliance officers, compliance committee. Risk analysis, recommendations for | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | corrective action. Implementation of corrective action. | | | | | |
| HRC232 | 2022 Fall | Health Care Regulatory Compliance Program Design | | Creation, management and evaluation of a health care regulatory compliance program including the work plan. Address the Health Insurance Portability and Accountability Act (HIPAA) Privacy and Breach Rules, HIPAA Security and Meaningful Use Attestation, Occupational Safety and Health Plan for workforce members, patients, and visitors. Occupational Safety and Health Administration (OSHA), Arizona Division of Occupational Safety and Health (ADOSH), Medicare/Medicaid Fraud and Abuse, Human Resources employment laws, Clinical Laboratory Improvement Act (CLIA) and Arizona Radiation Regulatory Agency (ARRA). | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| HRC234 | 2022 Fall | Health Care Regulatory Enforcement Case Studies | | Comprehensive review of case studies involving litigation and enforcement of health care law including review of landmark and contemporary cases brought by the United States Office of the Inspector General (Fraud and Abuse); the Office of Civil Rights; the Health Insurance Portability and Accountability Act (HIPAA) Privacy and Security Laws. Application of knowledge and skills from earlier coursework to real-world situations. | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| HRM102 | 2012 Spring | Menu Planning Development | CUL109 | Principles and techniques of menu planning for food service operations where food | Prerequisites: None. | | Occ | LEC 2.0 2.0 2.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | is served in quantity; includes applications for health care institutions, commercial kitchens, school cafeterias, and industrial facilities. | | | | | |
| HRM110 | 2004 Fall | Introduction to Hospitality and Tourism Management | | A fundamental overview of the hotel, restaurant, and tourism segments of the hospitality and tourism industry. Provides an overview of the operational sectors of the industry and reviews management components and skills. Contains components to develop communication skills and a professional career plan | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| HRM120 | 1995 Fall | Hotel Facility Management | | Fundamental duties and responsibilities of hotel facility management. Emphasis on detail tasks, including personnel, cleaning, purchasing, equipment, textiles, maintenance, and safety. Examines basic systems for hotel facility management record keeping | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| HRM126 | 2018 Fall | Food Service Cost Systems | | Basic skills necessary to understand and utilize cost controls. Overview of systems for purchasing, storage, production control, and budgeting. Mechanical and mathematical details emphasized. Accounting process taught with aid of microcomputer. Introduction to standardized accounting software. | Prerequisites: None. | | Occ | L+L 2.0 2.0 2.0 | T |
| HRM130 | 1995 Fall | Guest Services Management | | Examines organization and management of the hotel front office and guest service operations. Explores key front office functions and related systems and skills necessary to ensure guest satisfaction and efficient operations | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| HRM140 | 1995 Fall | Food Production Concepts | | Concepts related to preparation of hot foods, pantry, and bakery items for commercial kitchens. Emphasis on essential components and techniques of food production, food cost control, setting standards, ordering, and inventory | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| HRM142 | 2010 Spring | Wine: From Vine to Table | | An overview of the history, culture, viticulture techniques, production, distribution, control, and consumption in the wine industry. Provides an overview of wine and health issues, interpreting wine labels, alcohol service laws, and general operational concepts of the wine industry. | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| HRM144 | 2018 Fall | Gourmet Foods | | The art and appreciation of gourmet foods, accompanied by preparation and appropriate services. | Prerequisites: None. | | Occ | L+L 3.0 4.0 4.0 | T |
| HRM145 | 2007 Fall | Events Management | | Introduction to organizing special events from concept through completion, including planning, coordination, marketing, financing and risk management. Overview of the critical stages and functions involved in staging and managing special events including meetings, conferences, entertainment, expositions, conventions and sporting events | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| HRM146 | 2007 Fall | International Meetings, Conventions and Exhibitions | | Introduces the planning and executing of multinational and multicultural meetings, conventions and exhibitions. Emphasizes coordination, logistics, venue selection, budgeting and cultural competencies critical to a global business environment | Prerequisites: A grade of C or better in HRM110. | | Occ | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| HRM150 | 2020 Fall | Hospitality and Tourism Information Systems I | | Overview of current computer technology, concepts and terminology as it applies to the hospitality and tourism industry. Use of software applications including word processing, spreadsheet, database and presentation graphics. Discussion of social and ethical issues related to computers. Exploration of relevant and emerging technologies in the industry. | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| HRM160 | 2011 Spring | Tourism Principles and Practices | | Introduces the fundamental principles and practices of tourism. Examines tourism sectors, consumer behavior, and factors that influence tourism. Focuses on the interaction of tourism with the economy, environment and people. | Prerequisites: None. | Course Attribute(s): General Education Designation: Global Awareness - [G] | Occ | LEC 3.0 3.0 3.0 | S |
| HRM170 | 2022 Spring | Hospitality in Healthcare and Life Care Management | | Provides an overview of the role of hospitality in healthcare facilities and life care communities. Topics include history and future growth, customer service in these high-touch environments, facility design and housekeeping requirements, medical and health management, sensitivity to those healing and dealing with end-of-life issues, overall providing a strong management and customer service structure while caring for the most vulnerable. | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| HRM220 | 2011 Fall | Hospitality Managerial Accounting | | Study of financial statement analysis, asset management, ratio analysis, analytical techniques, and investment decision making. Emphasis on planning, budgeting, and management decisions. | Prerequisites: A grade of C or better in ACC111 or ACC211 or HRM265. | | Occ | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| HRM230 | 1995 Fall | Beverage Management | | Identification, production, purchasing, and service of spirits, wine and beer products. Marketing, menu development, and cost controls of a beverage operation. Special emphasis on staffing training, and legal regulations for beverage sales | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| HRM235 | 2001 Fall | Club Management | | Examines organization and management of private clubs. Emphasis on member services and operations management. Explores key functions including food and beverage, golf operations, fitness and recreation programs | Prerequisites: A grade of C or better in HRM110. | | Occ | LEC 3.0 3.0 3.0 | S |
| HRM240 | 2018 Fall | Commercial Food Production | | Application of food preparation principles, procedures, and techniques to small and large quantity food production. Emphasis on techniques and procedures used in contemporary commercial kitchens | Prerequisites: A grade of C or better in HRM110 and HRM140. | | Occ | L+L 3.0 4.0 4.0 | T |
| HRM244 | 1999 Fall | Quality Sanitation Management | | Systems approach to answering public health concerns, reducing sanitation risks, and ensuring satisfaction for guests, staff members, and owners. Definition and implementation of sanitation quality, cost control, and risk reduction in a hospitality operation | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| HRM250 | 2005 Fall | Hospitality and Tourism Information Systems II | | Use of computer systems to generate information needed for management of lodging, tourism and food service businesses. Emphasis on computer-based hotel property and restaurant management systems. Includes basic ledger principles | Prerequisites: A grade of C or better in (HRM110 and HRM150) or permission of Instructor. | | Occ | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| HRM260 | 2006 Spring | Hospitality Human Resource Management | | Examines concepts and applications of human resource management in the hospitality industry. Topics include recruitment, selection, training and evaluation. Emphasis on current management methods and productivity in the service environment | Prerequisites: A grade of C or better in HRM110 or permission of Instructor. | | Occ | LEC 3.0 3.0 3.0 | S |
| HRM265 | 2014 Spring | Financial Management for Hospitality and Tourism | | Examines financial management concepts, analytical techniques and decision making processes essential to hospitality and tourism management. Provides an applied management approach to managing profitability, financing growth, and using financial analysis to make decisions. | Prerequisites: A grade of C or better in HRM110. MAT140 or MAT141 or MAT142 recommended but not required. | | | LEC 3.0 3.0 3.0 | S |
| HRM270 | 2007 Fall | Hospitality Marketing | | Essential skills of defining a service market, developing a market plan, and directing personnel to follow market plan. Emphasis on marketing in the hospitality industry and understanding segmentation, positioning and promotion in that market | Prerequisites: A grade of C or better in HRM110. | Occ | Occ | LEC 3.0 3.0 3.0 | S |
| HRM275 | 1996 Spring | Restaurant Management | | Overview of restaurant industry with focus on the major segments. Emphasis on developing plans for: marketing, accounting system, staffing, training, menu development and cost controls for restaurant operation. Special emphasis on safety and sanitation, and legal regulations in the restaurant industry | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| HRM280 | 2005 Fall | Hospitality and Tourism Law | | Examines legal aspects of hotel, restaurant and tourism management. Uses case | Prerequisites: A grade of C or better in HRM110. | | Occ | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | study approach to develop understanding of the laws and regulations governing guest relationships, contracts, employee relations, civil rights, alcoholic beverages, safety and product liability | | | | | |
| HRM285 | 2004 Fall | Gaming Management | | History, development, and management of casinos and gaming. Emphasis on environment, operations, regulation, accounting, auditing, and taxation of casinos and gaming operations | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| HRM290 | 2005 Fall | Ecotourism | | Overview of ecotourism planning and development with emphasis on contemporary issues associated with environmentally sound, culturally sensitive and economically viable tourism development. Examines the history and emergence of ecotourism and the establishment of policies and management practices associated with sustainable development that conserves natural resources while providing economic benefits | Prerequisites: A grade of C or better in HRM110. | Occ | | LEC 3.0 3.0 3.0 | S |
| HRM291 | 2007 Spring | Directed Field Study -International | | Directed international field study in hospitality or tourism at an approved site working with industry, government or the nonprofit sector. Designed to provide students the opportunity to integrate theories, principles, and practices from their program of study through practical application in an international setting. Includes a minimum of 240 documented hours of contact with the | Prerequisites: Completion of 15 credits in the Hospitality and Tourism Program a 3.0 or higher grade point average and permission of the program director. | HRM291 may be repeated for a total of six (6) credits with permission of the Program Director. | Occ | LAB 3.0 15.0 0.0 | C |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | employer/subject of study at minimum. | | | | | |
| HRM292 | 2007 Spring | Directed Field Study | | Directed field study in hospitality or tourism at an approved site working with industry, government or the nonprofit sector. Designed to provide students the opportunity to integrate theories, principles, and practices from their program of study through practical application. Includes a minimum of 240 documented hours of contact with the employer/subject of study. | Prerequisites: Completion of 15 credits in the Hospitality and Tourism Program a 3.0 or higher grade point average and permission of the program director. | HRM292 may be repeated for a total of six (6) credits with permission of the Program Director. | Occ | LAB 3.0 15.0 0.0 | C |
| HRM295AA | 2019 Spring | Hospitality Internship | | Hospitality and/or tourism work experience in a business or industry. Eighty hours of designated work per credit. | Prerequisites: Permission of Department or Division. | HRM295AA may be repeated for three (3) credits. | Occ | LAB 1.0 1.0 0.0 | C |
| HRM295AB | 2019 Spring | Hospitality Internship | | Hospitality and/or tourism work experience in a business or industry. Eighty hours of designated work per credit for a total of 160 hours. | Prerequisites: Permission of Department or Division. | | | LAB 2.0 2.0 0.0 | C |
| HRM295AC | 2019 Spring | Hospitality Internship | | Hospitality and/or tourism work experience in a business or industry. Eighty hours of designated work per credit for a total of 240 hours. | Prerequisites: Permission of Department or Division. | | | LAB 3.0 3.0 0.0 | C |
| HRM296WA | 2002 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or | Occ<br>Occ<br>Occ | | LAB 1.0 5.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | career interest or with permission of Instructor. | | | | |
| HRM296WB | 2002 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor. | | Occ | LAB 2.0 10.0 0.0 | Z |
| HRM296WC | 2002 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor. | | Occ | LAB 3.0 15.0 0.0 | Z |
| HRM296WD | 2002 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or | | Occ | LAB 4.0 20.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor. | | | | |
| HRM298AA | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | Prerequisites: Permission of Program Director or Instructor. | Occ | | LAB 1.0 1.0 0.0 | Z |
| HRM298AB | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | Prerequisites: Permission of Program Director or Instructor. | Occ | | LAB 2.0 2.0 0.0 | Z |
| HRM298AC | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of | Prerequisites: Permission of Program Director or Instructor. | | | LAB 3.0 3.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | | | | | |
| HSE101 | 2023 Fall | Teaching Foundations in Healthcare Education | | Examination of teaching foundations essential to understanding healthcare education as a discipline. Orientation to health professions concepts such as patient-centered care, interdisciplinary teams and evidence-based practice. Exploration of differences in healthcare education versus educational practices to develop skills necessary for a career as a health professions educator. | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| HSE102 | 2023 Fall | Ethics and Diversity in Healthcare Educational Settings | | Exploration of topics related to ethics and diversity within the educational setting as it relates to healthcare programs. Examination of the role of prejudice, stereotyping, and cultural incompatibilities in healthcare education. Reiterating topics of professionalism, legal knowledge, code of conduct, and other issues that are routinely addressed in the classroom and healthcare. | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| HSE103 | 2023 Fall | Curriculum Design and Teaching in Healthcare Education | | Introduction to curriculum design for healthcare education coursework derived from formal career and clinical knowledge. Examination and | Prerequisites: None. | | Occ | LEC 2.0 2.0 2.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | application of learning and teaching theories and curriculum models within the classroom, laboratory, or clinical learning environment in healthcare education. | | | | | |
| HSE104 | 2023 Fall | Assessment and Evaluation in Clinical Education | | Application and determination of student performance using various methods. Methodologies will be explored on how to gauge the students' comprehension and understanding, and this feedback will help inform instruction. | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| HSE105 | 2023 Fall | Technology Integration and Design for Healthcare Education | | Explore and apply various forms of tools and technology in the teaching and learning processes, and how to engage these processes in the classroom. Introduction to Learning Management Systems (LMSs) and course design. | Prerequisites: None. | | Occ | LEC 2.0 2.0 2.0 | S |
| HSE106 | 2003 Spring | Introduction to HIPAA Privacy Rule | | Purpose and intent of the Health Insurance Portability and Accountability Act (HIPAA) Privacy Rule. Regulation interpretation and application in the health care environment. Guidelines for development of key documents. Penalties for non-compliance | Knowledge of basic operations of a medical practice or other health care environment. | | | LEC 2.0 2.0 2.0 | S |
| HSE107 | 2023 Fall | Research Methods for Healthcare Education | | Introduction of qualitative, quantitative, and mixed methods research in the study of education within the health professions. Explores ethical issues, human subject protection, and institutional review boards associated with research in higher education. Enables students to become better consumers of educational research. | Prerequisites: None. | Occ | Occ | LEC 1.0 1.0 1.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| HSE108 | 2023 Fall | Practicum in Healthcare Education | | Capstone course including curriculum, design, and assessment. Facilitates role transition from student to healthcare educator. Focus on student presentations to a panel of students or peers. | Prerequisites: A grade of C or better in HSE101, HSE102, HSE103, HSE104, HSE105, and HSE107, or permission of Program Director. | | | LAB 3.0 3.0 3.0 | T |
| HSE110 | 2003 Spring | Successful Grant Writing | | Grant seeking and grant writing processes for the beginning grant writer. Pre-application preparation, application development, and grant proposal evaluation and follow-up. Includes development of grant applications for government and private funding sources | Prerequisites: None. | Occ | Occ | LEC 0.5 0.5 0.5 | S |
| HSM122 | 2001 Fall | Health Services Supervision | | Skills and techniques for the leadership and supervision of health services employees. Emphasis placed on assertive supervision, effective human relations skills, and the enhancement of oral and written workplace communications | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| HSM125 | 2001 Fall | Current Issues in Health Services Management | | Overview of the inner workings of the health care industry and the forces that drive and control the delivery of health services. Explores financial, technological and human resources, regulatory systems, and national, state and local issues | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| HSM207 | 2012 Spring | Health Service Management Internship | | Application of leadership, supervisory and managerial skills and observation of administrative function in a specific health services setting. | Prerequisites: A grade of C or better in Any three (3) of the following four (4) courses: HSM122, or HSM125, or HSM222, or HSM226, or permission of Instructor. | | Occ | LAB 3.0 15.0 0.0 | C |
| HSM222 | 2001 Fall | Health Services Management | | The role and functions of management in understanding and building organizational | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | effectiveness. Focuses on the manager as a leader and planner capable of developing motivated and committed employees and work teams | | | | | |
| HSM226 | 2001 Fall | Ethics and Legalities of Health Services Management | | Identification, analysis, and problem solving related to legal and ethical issues in health services management. Includes an emphasis on employment law, confidentiality issues, accurate financial reporting and personal promotional preparation | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| HSM230 | 2022 Fall | Healthcare Strategic Planning and Deployment | | A comprehensive look at the development and implementation of strategic plans within healthcare business environments. This course explores essential techniques, tools, data, and communication strategies for developing strategic plans in order to make better recommendations for initiatives across the continuum of healthcare services. | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| HSM282AA | 2018 Fall | Volunteerism for Health Services Management: A Service Learning Experience | | Service learning field experience within private/public agencies, and citizen volunteer groups. | Prerequisites: A grade of C or better in Any three (3) of the following four (4) courses: HSM122, or HSM125, or HSM222, or HSM226, or permission of Instructor. | | Occ | LAB 1.0 1.0 1.0 | T |
| HST180 | 2019 Fall | Overview of Histology (Anatomic) Laboratory | | Overview of anatomic laboratory services, anatomic laboratory professionals, and the role of the histology technician. Emphasis on certification, accreditation, and regulatory agencies. Application of process improvement, quality control, | Prerequisites: Admission to Histologic Technology program or permission of Program Director. | | | LAB 2.0 2.0 2.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | laboratory mathematics, infection control, sharps/mechanical hazards, documentation, medico-legal implications, and chemical hygiene principles. Includes information management in anatomic laboratories. Importance of management and supervision leadership principles and professional growth and ethical conduct. | | | | | |
| HST181 | 2019 Fall | Chemistry of Fixation | | Principles of fixation and fixative solutions. Anatomic laboratory instrumentation and specimen handling, identification, and tracking protocols. Emphasis on gross examination processes, tissue processing protocols, and specialized processing techniques. | Prerequisites: Admission to Histologic Technology program or permission of Program Director, and a grade of C or better in HST180. | | | L+L 3.0 3.0 3.0 | T |
| HST182 | 2019 Fall | Microtomy | | Emphasis on decalcification techniques, ergonomic safety practices for microtomy, and frozen section techniques. Application of embedding orientation by tissue type. Procedures for paraffin embedding station, cryostat and rotary microtome set-up and maintenance, and sharps safety practices for the microtome. Includes techniques for microtomy, specialized microtomy, frozen section, and cytology specimen preparation. | Prerequisites: A grade of C or better in HST181. | Occ<br><br>Occ | | L+L 5.0 4.0 4.0 | T |
| HST183 | 2019 Fall | Practicum: Chemistry of Fixation | | Practicum in histology techniques performed in an anatomic laboratory. Application of clinical skills for specimen handling, identification, and tracking protocols. Use of anatomic laboratory instrumentation. | Prerequisites: A grade of C or better in HST181 or permission of Program Director. | | | LAB 1.0 4.5 0.0 | C |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Study of gross examination protocols. Demonstration of fixation techniques, paraffin processing protocols, and specialized processing techniques. Performance of clerical and computer functions using medico-legal guidelines for documentation. Use of professional and ethical conduct in all interpersonal communications. | | | | | |
| HST184 | 2019 Fall | Practicum: Microtomy | | Practicum in histology techniques performed in an anatomic laboratory. Use of decalcification and frozen section techniques. Includes embedding orientation by tissue type and ergonomic safety practices for microtomy. Procedures for the paraffin embedding station, cryostat and rotary microtome set-up and maintenance, and sharps safety practices for the microtome. Emphasis on techniques for microtomy, specialized microtomy, frozen section, and cytology specimen preparation. | Prerequisites: A grade of C or better in HST182. | Occ | | LAB 1.0 4.5 0.0 | C |
| HST185 | 2019 Fall | Cellular Biological Staining | | Recognition of basic cellular structure. Identification of carbohydrates classification, pigments, minerals, and lipids in tissues and connective tissue structures. Explanation of chemical staining theory. Stain principles and procedures for nuclear and cytoplasmic structures, carbohydrates and lipids, connective tissue, and tissue pigments and minerals stains. | Prerequisites: A grade of C or better in HST182. Corequisites: HST187. | | | L+L 5.0 4.0 4.0 | T |
| HST186 | 2019 Fall | Cellular Biological and Immunohistochemical Staining | | Identification of pathologic organisms and neurological structures. Use of stains for | Prerequisites: A grade of C or better in HST185. | Occ | | L+L 5.0 4.0 4.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | microorganisms and neurological structures. Explanation of theories of histochemical and immunohistochemical staining. Procedures for histochemical and immunohistochemical stains. Overview of specimens for electron microscopy and autopsy procedures. Emphasis on assessing histology workflow processes, laboratory procedure manuals, and workload and productivity recording and monitors. | | | | | |
| HST187 | 2019 Fall | Practicum: Cellular Biological Staining | | Practicum in histology techniques performed in an anatomic laboratory. Recognition of basic cellular structure, carbohydrate structures, connective tissue, lipid structures, and pigments and minerals in tissues. Application of chemical staining. Emphasis on stains for nuclear and cytoplasmic structures, carbohydrates and lipids, connective tissue, and tissue pigments and minerals stains. | Prerequisites: A grade of C or better in HST185. | Occ | | LAB 1.0 4.5 0.0 | C |
| HST188 | 2019 Fall | Practicum: Cellular Biological and Immunohistochemical Staining | | Practicum in histology techniques performed in an anatomic laboratory. Identification of pathologic organisms and neurological structures. Use of stains for microorganisms and neurological structures. Application of histochemical and immunohistochemical stains. Observation of electron microscopy and autopsy procedures. Emphasis on histology workflow processes, laboratory procedure manuals, | Prerequisites: A grade of C or better in HST186. | Occ | | LAB 1.0 4.5 0.0 | C |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | and workload and productivity recording and monitors. | | | | | |
| HTM150 | 2015 Fall | Introduction to Healthcare IT and Systems | | Introduction to current and emerging Healthcare IT systems with particular emphasis on healthcare information and data, governance, information systems and technologies, and industry challenges in a value-added healthcare environment. | Prerequisites: A grade of C or better in CIS105 or permission of Instructor. | | Occ | LEC 3.0 3.0 3.0 | S |
| HTM200 | 2018 Fall | Healthcare IT Software Infrastructure: Interoperability, Security and mHealth | | Application of industry-specific IT skills to entry-level Healthcare IT software development projects, with particular skills emphasis on high-growth areas such as interoperability, security and Mobile Health (mHealth). | Prerequisites: A grade of C or better in [(CIS133AA and CIS133BA and CIS133CA) or CIS133DA] and CIS150AB and HTM150 and permission of Program Director. | Admission to either CCL or AAS program in Healthcare Technology Systems required for permission to enroll. Application includes verification that student has met program prerequisites. | Occ | L+L 3.0 4.0 4.0 | T |
| HTM230 | 2020 Fall | Healthcare Data Analytics, Artificial Intelligence (AI) and Machine Learning | | Overview of theories and practical applications of Data Analytics, Artificial Intelligence (AI), and Machine Learning. A focus on trends, opportunities, and emerging uses, as well as best practices, limitations, and ethical implications. Hands-on practice with current tools to solve complex healthcare problems. | Prerequisites: A grade of C or better in (BPC110 or CIS105) and HTM150. | | | L+L 3.0 4.0 4.0 | T |
| HTM250 | 2018 Fall | Healthcare IT Systems Development Life Cycle (SDLC) | | Introduction to the Systems Development Life Cycle (SDLC) methodologies and tools currently used on healthcare Information Technology (IT) projects, with particular emphasis on software development. Experience with application development and testing tools in a project-based lab setting. | Prerequisites: A grade of C or better in CIS224 and HTM200 or Corequisites: CIS224 and HTM200. | Occ | | L+L 3.0 4.0 4.0 | T |
| HTM270 | 2018 Fall | Healthcare IT Systems Capstone | | Culminating application of the skills, knowledge, communication and critical | Prerequisites: A grade of C or better in HTM250. | Occ | Occ | L+L 3.0 4.0 4.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | thinking skills from the Healthcare Technology Systems program to address industry-specific challenges. Includes investigation and application of current and emerging healthcare technologies. | | | | | |
| HTM280 | 2020 Fall | Healthcare Technology Systems Career Strategies | | Overview of the career exploration and planning process designed to assist students interested in healthcare technology systems and related fields to transition into the professional world. Focuses on current occupational trends and career decision-making strategies with a special emphasis on experiences within the field. Includes practice with self-presentation in the professional world such as effective resumes, personal portfolio, interviewing skills, online presence and professional appearance. | Prerequisites: A grade of C or better in HTM150. | | Occ | L+L 3.0 2.0 2.0 | T |
| HUM100 | 1995 Spring | Great Ideas Symposium | | Interrelationships among cultures and behavior in the modern world. Focuses on selected themes and topics | Prerequisites: None. | | Acad | LEC 1.0 1.0 1.0 | S |
| HUM101 | 1994 Fall | General Humanities | | A general humanities course concentrating on three great ages of outstanding human achievement: The Golden Age of Greece, the Renaissance and the 20th Century | Prerequisites: None. | Course Attribute(s): General Education Designation: Humanities, Arts and Design - [HU] | Acad | LEC 3.0 3.0 3.0 | S |
| HUM107 | 1995 Fall | Humanities Through the Arts | | Introduction to humanities including film, drama, music, literature, painting, sculpture, and architecture | Prerequisites: None. | Course Attribute(s): General Education Designation: Humanities, Arts and Design - [HU] | Acad | LEC 3.0 3.0 3.0 | S |
| HUM108 | 2005 Spring | Contemporary Humanities | | An exploration of human expression in contemporary arts and sciences | Prerequisites: None. | Course Attribute(s): General Education Designation: Historical Awareness - [H] General Education Designation: | Acad | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Humanities, Arts and Design - [HU] | | | |
| HUM120 | 2015 Spring | Cultural Viewpoints in the Arts | | Introduction to the influence of culture and ethnicity on the artist, including factors such as race, religion, gender, class, sexual preference, age, and region. Lecture and discussion on various art forms, including literature, visual arts, music, dance, film, and theater. | Prerequisites: None. | | Acad | LEC 3.0 3.0 3.0 | S |
| HUM190AA | 1995 Fall | Honors Forum | | Interdisciplinary studies of selected issues confronting the individual and society. Formal lectures followed by informal discussions with outstanding scholars and social leaders. Supplemented by readings and pre- and post-forum discussion and critique. Varied content from module to module due to changing forum themes and issues | Prerequisites: Admission to the College Honors Program or Permission of Instructor. | Course Attribute(s): General Education Designation: Humanities, Arts and Design - [HU] - Combination select three (3) courses from: HUM190AA, HUM190AB, HUM190AC, HUM190AD, HUM190AE,HUM190AF, HUM190AG, HUM190AH, HUM190AI | Acad | LEC 1.0 1.0 1.0 | S |
| HUM190AB | 1995 Fall | Honors Forum | | Interdisciplinary studies of selected issues confronting the individual and society. Formal lectures followed by informal discussions with outstanding scholars and social leaders. Supplemented by readings and pre- and post-forum discussion and critique. Varied content from module to module due to changing forum themes and issues | Prerequisites: Admission to the College Honors Program or Permission of Instructor. | Course Attribute(s): General Education Designation: Humanities, Arts and Design - [HU] - Combination select three (3) courses from: HUM190AA, HUM190AB, HUM190AC, HUM190AD, HUM190AE,HUM190AF, HUM190AG, HUM190AH, HUM190AI | Acad | LEC 1.0 1.0 1.0 | S |
| HUM190AC | 1995 Fall | Honors Forum | | Interdisciplinary studies of selected issues confronting the individual and society. Formal lectures followed by informal discussions with outstanding scholars and social leaders. Supplemented by readings and pre- and | Prerequisites: Admission to the College Honors Program or Permission of Instructor. | Course Attribute(s): General Education Designation: Humanities, Arts and Design - [HU]- Combination select three (3) courses from: HUM190AA, HUM190AB, HUM190AC, HUM190AD, HUM190AE,HUM190AF, | Acad | LEC 1.0 1.0 1.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | post-forum discussion and critique. Varied content from module to module due to changing forum themes and issues | | HUM190AG, HUM190AH, HUM190AI | | | |
| HUM190AD | 1995 Fall | Honors Forum | | Interdisciplinary studies of selected issues confronting the individual and society. Formal lectures followed by informal discussions with outstanding scholars and social leaders. Supplemented by readings and pre- and post-forum discussion and critique. Varied content from module to module due to changing forum themes and issues. | Prerequisites: Admission to the College Honors Program or Permission of Instructor. | Course Attribute(s): General Education Designation: Humanities, Arts and Design - [HU] - Combination select three (3) courses from: HUM190AA, HUM190AB, HUM190AC, HUM190AD, HUM190AE,HUM190AF, HUM190AG, HUM190AH, HUM190AI | Acad | LEC 1.0 1.0 1.0 | S |
| HUM190AE | 1995 Fall | Honors Forum | | Interdisciplinary studies of selected issues confronting the individual and society. Formal lectures followed by informal discussions with outstanding scholars and social leaders. Supplemented by readings and pre- and post-forum discussion and critique. Varied content from module to module due to changing forum themes and issues | Prerequisites: Admission to the College Honors Program or Permission of Instructor. | Course Attribute(s): General Education Designation: Humanities, Arts and Design - [HU] - Combination select three (3) courses from: HUM190AA, HUM190AB, HUM190AC, HUM190AD, HUM190AE,HUM190AF, HUM190AG, HUM190AH, HUM190AI | Acad | LEC 1.0 1.0 1.0 | S |
| HUM190AF | 1995 Fall | Honors Forum | | Interdisciplinary studies of selected issues confronting the individual and society. Formal lectures followed by informal discussions with outstanding scholars and social leaders. Supplemented by readings and pre- and post-forum discussion and critique. Varied content from module to module due to changing forum themes and issues | Prerequisites: Admission to the College Honors Program or Permission of Instructor. | Course Attribute(s): General Education Designation: Humanities, Arts and Design - [HU] - Combination select three (3) courses from: HUM190AA, HUM190AB, HUM190AC, HUM190AD, HUM190AE,HUM190AF, HUM190AG, HUM190AH, HUM190AI | Acad | LEC 1.0 1.0 1.0 | S |
| HUM190AG | 1995 Fall | Honors Forum | | Interdisciplinary studies of selected issues confronting | Prerequisites: Admission to the | Course Attribute(s): General Education Designation: | Acad | LEC 1.0 1.0 1.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | the individual and society. Formal lectures followed by informal discussions with outstanding scholars and social leaders. Supplemented by readings and pre- and post-forum discussion and critique. Varied content from module to module due to changing forum themes and issues | College Honors Program or Permission of Instructor. | Humanities, Arts and Design - [HU] - Combination select three (3) courses from: HUM190AA, HUM190AB, HUM190AC, HUM190AD, HUM190AE,HUM190AF, HUM190AG, HUM190AH, HUM190AI. | | | |
| HUM190AH | 1995 Fall | Honors Forum | | Interdisciplinary studies of selected issues confronting the individual and society. Formal lectures followed by informal discussions with outstanding scholars and social leaders. Supplemented by readings and pre- and post-forum discussion and critique. Varied content from module to module due to changing forum themes and issues | Prerequisites: Admission to the College Honors Program or Permission of Instructor. | Course Attribute(s): General Education Designation: Humanities, Arts and Design - [HU] - Combination select three (3) courses from: HUM190AA, HUM190AB, HUM190AC, HUM190AD, HUM190AE,HUM190AF, HUM190AG, HUM190AH, HUM190AI | Acad | LEC 1.0 1.0 1.0 | S |
| HUM190AI | 1995 Fall | Honors Forum | | Interdisciplinary studies of selected issues confronting the individual and society. Formal lectures followed by informal discussions with outstanding scholars and social leaders. Supplemented by readings and pre- and post-forum discussion and critique. Varied content from module to module due to changing forum themes and issues | Prerequisites: Admission to the College Honors Program or Permission of Instructor. | Course Attribute(s): General Education Designation: Humanities, Arts and Design - [HU] - Combination select three (3) courses from: HUM190AA, HUM190AB, HUM190AC, HUM190AD, HUM190AE,HUM190AF, HUM190AG, HUM190AH, HUM190AI | Acad | LEC 1.0 1.0 1.0 | S |
| HUM201 | 2014 Fall | Humanities: Universal Themes | | Study of worldviews in a variety of historical and contemporary world cultures, including analysis of origin and creation myths, artistic expression, spirituality, and the natural environment. | Prerequisites: None. | Course Attribute(s): General Education Designation: Global Awareness - [G] General Education Designation: Humanities, Arts and Design - [HU] | Acad | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| HUM202 | 2015 Summer | Humanities: Universal Themes | | The hero/heroine; fool, the social world, and the future as themes in the humanities | Prerequisites: None. | General Education Designation: Humanities, Arts and Design - [HU] | Acad | LEC 3.0 3.0 3.0 | S |
| HUM205 | 2014 Fall | Introduction to Cinema | THF205 | Survey of the history and development of the art of motion pictures, including criticism of aesthetic and technical elements. | Prerequisites: None. | Course Attribute(s): General Education Designation: Humanities, Arts and Design - [HU] | Acad | LEC 3.0 3.0 3.0 | S |
| HUM206 | 2017 Spring | Introduction to Television Arts | THF206 | History and development of electronic media and its impact on popular arts. | Prerequisites: None. | | Acad | LEC 3.0 3.0 3.0 | S |
| HUM209 | 2018 Spring | Women and Films | WST209 | Analysis of images of women in films from both historical and contemporary perspectives | Prerequisites: None. | Course Attribute(s): General Education Designation: Cultural Diversity - [C] General Education Designation: Humanities, Arts and Design - [HU] | Acad | LEC 3.0 3.0 3.0 | S |
| HUM210 | 2014 Fall | Contemporary Cinema | THF210 | A study of contemporary films, directors and critics with emphasis on evaluating film as an art form. | Prerequisites: None. | Course Attribute(s): General Education Designation: Humanities, Arts and Design - [HU] | Acad | LEC 3.0 3.0 3.0 | S |
| HUM211AA | 1995 Fall | Foreign Films: Classics | | Analysis of contributions of foreign directors to the art and history of motion pictures through a study of selected films | Prerequisites: None. | Course Attribute(s): General Education Designation: Global Awareness - [G] General Education Designation: Humanities, Arts and Design - [HU] | Acad | LEC 3.0 3.0 3.0 | S |
| HUM211AE | 2011 Fall | Foreign Films: Italian | | Analysis of contributions of Italian directors to the art and history of motion pictures through a study of selected films. | Prerequisites: None. | | Acad | LEC 3.0 3.0 3.0 | S |
| HUM212 | 2023 Spring | Documentary Film | | Survey of documentary or non-fiction film. Emphasis on the interplay between form, subject, cultural context and filmmaker perspective. Focuses on primary types of documentary film, such as poetic, observational, expository reflexive, participative, and performative. Analyzes what distinguishes documentary film from fiction film. | Prerequisites: A grade of C or better in ENG101 or ENG107. | Course Attribute(s): General Education Designation: Humanities, Arts and Design - [HU] General Education Designation: Literacy and Critical Inquiry - [L] | Acad | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| HUM213 | 1995 Fall | Hispanic Film | | Analysis of Hispanic film as art form and as social commentary | Prerequisites: None. | Course Attribute(s): General Education Designation: Global Awareness - [G] General Education Designation: Humanities, Arts and Design - [HU] | Acad | LEC 3.0 3.0 3.0 | S |
| HUM214 | 2002 Fall | African-Americans in Film | | Study of films featuring African-American performers and directors from the Silent Era to the present. Emphasis on the historical and social elements of African Americans in film and basics of film analysis | Prerequisites: None. | Course Attribute(s): General Education Designation: Cultural Diversity - [C] General Education Designation: Humanities, Arts and Design - [HU] | Acad | LEC 3.0 3.0 3.0 | S |
| HUM215 | 2012 Summer I | Film Comedy | | Explores the basics of humor in film by tracing its roots through a historical examination of a variety of arts, artists, and theorists. Focuses on films' unique contributions to the world of laughter. Investigates how comedy, and film comedy in particular, provides an essential and unifying force for culture and society. | Prerequisites: None. | Course Attribute(s): General Education Designation: Humanities, Arts and Design - [HU] | Acad | LEC 3.0 3.0 3.0 | S |
| HUM216 | 2013 Spring | The Films and Career of Alfred Hitchcock | | Focuses on the career, films, and cinematic and cultural influence of acclaimed director Alfred Hitchcock. Includes the director's cinematic innovations, techniques, major films, and his influence on modern filmmakers. | Prerequisites: None. | Course Attribute(s): General Education Designation: Humanities, Arts and Design - [HU] | Acad | LEC 3.0 3.0 3.0 | S |
| HUM220 | 2019 Summer | History and Film | | Presents historically based films and analyzes their accuracy, filmmaking techniques, and their value as cinematic historical records of U.S. and global events. | Prerequisites: A grade of C or better in ENG101 or ENG107. | Course Attribute(s): General Education Designation: Humanities, Arts and Design - [HU] | Acad | LEC 3.0 3.0 3.0 | S |
| HUM225 | 2012 Spring | Introduction to Popular Culture | | Introduction to major topics in the field of popular culture studies. Includes basic theories, methods, and concepts used to analyze | Prerequisites: A grade of C or better in ENG101 or ENG107. | Course Attribute(s): General Education Designation: Literacy and Critical Inquiry - [L] | Acad | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | popular culture texts and practices. | | | | | |
| HUM235 | 2021 Fall | Disability Studies | | Considers representations of disability as artifacts of Western and non-Western cultures against changing backdrops in knowledge, ideas, beliefs, values, and practices. Works to build awareness, understanding, and empathy in regards to diverse forms of humanity and to de-stigmatize disease, illness, and impairment. | Prerequisites: A grade of C or better in ENG101 and (RDG100 or RDG100LL or RDG111 or RDG112 or RDG113 or eligibility for CRE101 as indicated by appropriate reading placement test score). | Course Attribute(s): General Education Designation: Global Awareness - [G] General Education Designation: Humanities, Arts and Design - [HU] Literacy and Critical Inquiry - [L] Social and Behavioral Sciences - [SB] | Acad | LEC 3.0 3.0 3.0 | S |
| HUM245 | 2015 Fall | Introduction to Holocaust Studies | | Introduction to essential information about the Holocaust. Provides theological, social and political background to establish contexts of anti-Semitism, especially in 19th and 20th centuries, with particular attention to National Socialist ideologies. Ghetto and camp life, including resistance, are explored. Emphasis is on texts of the Holocaust, including historical documents, participant testimonies, fiction, creative non-fiction, and poetry, much of which involves theological and moral debate. Includes analysis of supplementary visual material and some performing arts. | Prerequisites: None. CRE101 or CRE111 or equivalent as indicated by appropriate reading placement test score recommended but not required. | General Education Designation: Humanities, Arts and Design - [HU] | Acad | LEC 3.0 3.0 3.0 | S |
| HUM250 | 2021 Fall | Ideas and Values in the Humanities: Early Civilizations to the Renaissance | | An historical analysis of the interrelationships of art, architecture, literature, music, and philosophy from the early civilizations to the Renaissance, including western and non-western cultures. | Prerequisites: A grade of C or better in ENG101. | | | LEC 3.0 3.0 3.0 | S |
| HUM251 | 2021 Fall | Ideas and Values in the Humanities: Renaissance to the Contemporary World | | An historical analysis of the interrelationships of art, architecture, literature, music, | Prerequisites: A grade of C or better in ENG101. | | | LEC 3.0 3.0 3.0 | S |



Acad

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | and philosophy from the Renaissance to modern period, including Western and Non-Western cultures. | | | | | |
| HUM260 | 1996 Fall | Intercultural Perspectives | | Cultural, literary, and artistic expressions of Native, Hispanic, and African Americans. Includes traditional and modern work and contribution to American civilization | Prerequisites: None. | Course Attribute(s): General Education Designation: Cultural Diversity - [C] General Education Designation: Humanities, Arts and Design - [HU] | Acad | LEC 3.0 3.0 3.0 | S |
| HUM261 | 1998 Fall | Asian Ideas and Values | | An examination of Asian cultural traditions for their humanistic ideas and values: the arts, music, literature, religions, and philosophies of Asia, with emphasis on India and its sphere of influence in southeast Asia, and on China and its sphere of influence, particularly Japan | Prerequisites: None. | Course Attribute(s): General Education Designation: Global Awareness - [G] General Education Designation: Historical Awareness - [H] General Education Designation: Humanities, Arts and Design - [HU] | Acad | LEC 3.0 3.0 3.0 | S |
| HUM292 | 2023 Fall | The Art Of Storytelling | EDU292 STO292 | Explore the art and origin of storytelling. Provide a variety of storytelling techniques, styles and exercises to enhance the delivery of telling stories. Assist in the integration and application of storytelling to the learning environment in the classroom. | Prerequisites: None. | Course Attribute(s): General Education Designation: Humanities, Arts and Design - [HU] | Acad | LEC 3.0 3.0 3.0 | S |
| HUM295 | 2006 Fall | Topics in the Humanities | | Exploration of selected topic in the humanities. Focuses on a theme, concept, era, or genre. Analysis and interpretation of topic's representation, development, and significance in at least three different humanities areas and in a variety of world cultures. | Prerequisites: A grade of C or better in (ENG101 or ENG107) or permission of Instructor. | HUM295 may be repeated for a total of nine (9) credit hours. | Acad | LEC 3.0 3.0 3.0 | S |
| HUM296WA | 2023 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to | | | LAB 1.0 5.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor. | | | | |
| HUM296WB | 2023 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor. | | Acad | LAB 2.0 10.0 0.0 | Z |
| HUM296WC | 2023 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest | | Acad | LAB 3.0 15.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | or with permission of the Instructor. | | | | |
| HUM296WD | 2023 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor. | | Acad | LAB 4.0 20.0 0.0 | Z |
| HUM298AA | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | Prerequisites: Permission of Program Director or Instructor. | | Acad | LAB 1.0 1.0 0.0 | Z |
| HUM298AB | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. | Prerequisites: Permission of Program Director or Instructor. | | Acad | LAB 2.0 2.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | | | | | |
| HUM298AC | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | Prerequisites: Permission of Program Director or Instructor. | | Acad | LAB 3.0 3.0 0.0 | Z |
| HVA101 | 2021 Fall | HVAC for Residential Systems I | FAC101 | Introduction to major components and functions of residential heating, ventilation, and air conditioning (HVAC) systems, to include heat flow and basic electrical concepts. | Prerequisites: None. | | Occ | L+L 4.0 5.0 5.0 | T |
| HVA102 | 2021 Fall | HVAC for Residential Systems II | | Applications of theory and basic principles of refrigeration in residential heating, ventilation, and air conditioning (HVAC) systems. Includes installations, diagnostics, preventative and predictive maintenance, and customer service. | A grade of C or better required in all Prerequisites. Prerequisites or Corequisites: FAC/HVA101 or permission of Department or Division. | | | L+L 5.0 7.0 7.0 | T |
| HVA104 | 2023 Fall | EPA Section 608 Technician Preparation and Certification | | Laws, standards and procedures for the preparation to complete the certification for the Environmental Protection Agency (EPA) SECTION 608 - stationary equipment. Core certification requirements for Type I Technicians, Type II | Prerequisites: None. | Occ | Occ | LEC 1.0 1.0 1.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Technicians, Type III Technicians, and Universal Technicians. Type I Technician - primarily works on small appliances. Type II Technician - primarily works on appliances/equipment using high and very high pressure refrigerant. Type III Technician - primarily works on appliances/equipment using a low pressure refrigerant. Universal Technician - for servicing all appliances. | | | | | |
| HVA120 | 2021 Fall | HVAC Installation | | Introduction to installation of residential heating, ventilation, and air conditioning (HVAC) systems. Includes startup and verification of proper equipment operation. | Prerequisites: A grade of C or better in HVA102 or permission of Department. | | | L+L 4.0 6.0 6.0 | T |
| HVA130 | 2021 Fall | HVAC Troubleshooting | | Introduction to troubleshooting the components of residential heating, ventilation, and air conditioning (HVAC) systems, to assure proper equipment operation. | A grade of C or better required in all Prerequisites. Prerequisites or Corequisites: HVA120 or permission of Department. | | | L+L 4.0 6.0 6.0 | T |
| HVA131 | 2020 Summer | Electrical Systems | CON131 | Electricity related to residential and light commercial applications, to include common electrical components, AC and DC circuits, and electrical safety. Provides an introduction to reading, interpreting, and creating wiring diagrams and the application of electrical power. Operation and use of specific meters, tools, and an introduction to National Electrical Code (NEC). | Prerequisites: None. | Occ<br><br><br><br>Occ | Occ | L+L 3.5 4.0 4.0 | T |
| HVA210 | 2021 Fall | Facilities Air Conditioning Systems | FAC210 | Fundamental principles of air conditioning including all-air, all-water (hydronic) and air-water combination systems. | Prerequisites: A grade of C or better in HVA130 or permission of Department. | | | L+L 4.0 6.0 6.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Overview of the physical principles, including air distribution systems and heating and cooling load calculation. System components and application theory for boilers, chillers, pumps, fans, and cooling towers. Theory and application of central air conditioning systems, air cleaning and humidification devices, pressure boosting, heat storage, expansion and pressurization equipment. Properties of water, pressure distribution in hydronic systems, flow in pipes, pressure drop/head loss, pump applications and pressurization of open and closed hydronic systems. Fundamentals of low and high temperature water systems. | | | | | |
| HVA231 | 2021 Fall | Codes | FAC231 | Local codes, Federal Housing Administration and Urban Development standards. Acceptable building practices based on the Uniform Building Code, National Electric Code, Uniform Mechanical Code, and the Uniform Plumbing Code. Impact of American with Disabilities Act (ADA) on new and existing facilities. | Prerequisites: None. | | Occ | L+L 3.0 5.0 5.0 | T |
| HVA296WA | 2002 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of | | | LAB 1.0 5.0 0.0 | Z |



Occ

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor. | | | | |
| HVA296WB | 2002 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor. | | Occ | LAB 2.0 10.0 0.0 | Z |
| HVA296WC | 2002 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor. | | Occ | LAB 3.0 15.0 0.0 | Z |
| HVA296WD | 2002 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to | Prerequisites: Completion of at least twelve (12) college | | | LAB 4.0 20.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE | credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor. | | | | |
| HVA298AA | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | Prerequisites: Permission of Program Director or Instructor. | | Occ | LAB 1.0 1.0 0.0 | Z |
| HVA298AB | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student | Prerequisites: Permission of Program Director or Instructor. | | Occ | LAB 2.0 2.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | development. COMMON COMPETENCY COURSE | | | | | |
| HVA298AC | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | Prerequisites: Permission of Program Director or Instructor. | | Occ | LAB 3.0 3.0 0.0 | Z |
| HVC101 | 2020 Fall 1 | HVAC for Residential Systems I | | Introduction to major components and functions of residential heating, ventilation, and air conditioning (HVAC) systems, to include heat flow and basic electrical concepts. | Prerequisites: None. | | CLK | 130 | |
| HVC102 | 2020 Fall 1 | HVAC for Residential Systems II | | Applications of theory and basic principles of refrigeration in residential heating, ventilation, and air conditioning (HVAC) systems. Includes installations, diagnostics, preventative and predictive maintenance, and customer service. | Prerequisites: None. | | CLK | 130 | |
| HVC120 | 2020 Fall 1 | HVAC Installation | | Introduction to installation of residential heating, ventilation, and air conditioning (HVAC) systems. Includes startup and verification of proper equipment operation. | Prerequisites: A grade of C or better in HVC102 or permission of department. | | | 130 | |
| HVC130 | 2021 Summer | HVAC Troubleshooting | | Introduction to troubleshooting the components of residential heating, ventilation, and air conditioning (HVAC) systems, to assure proper equipment operation. | A grade of C or better required in all Prerequisites. Prerequisites or Corequisites: HVC120 or permission of department. | | CLK | 130 | |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| HWC101 | 2022 Fall | Health and Wellness Coaching | | Provides the foundational practical skills for the application of the appropriate structure and processes of health and wellness coaching. Fundamental techniques and concepts used in coaching to establish effective coach-client partnerships, build trust and rapport, assess client readiness, and ensure ethical and professional considerations in coaching. Satisfies components of the National Board for Health and Wellness Coaching requirements. | Prerequisites: None. | | Acad | L+L 3.0 4.0 4.0 | T |
| HWC290 | 2023 Fall | Health and Wellness Coaching Internship | | Work-based experience in health and wellness coaching. Eighty hours of designated work per credit. | Prerequisites: A grade of C or better in HWC101 and permission of Instructor. | HWC290 may be repeated for credit. | Acad | LAB 1.0 1.0 0.0 | C |
| IBS101 | 2002 Spring | Introduction to International Business | | A basic overview of international business to introduce students to international trade concepts. Focus of the course is on international business environment issues that influence global business practices, decisions and applications | Prerequisites: None. | Course Attribute(s): General Education Designation: Global Awareness - [G] | Occ | LEC 3.0 3.0 3.0 | S |
| IBS104 | 1997 Fall | International Finance | | The development of foreign exchange and international banking is examined. Methods of export financing, including both short- and medium-term credit and an in-depth review of application to and administration of government loan programs are covered. Important factors in country risk analysis are discussed | Prerequisites: None. | | Occ | LEC 1.0 1.0 1.0 | S |
| IBS105 | 1997 Fall | International Law | | Introduction to the legal aspects and ramifications of international trade topics including multinational | Prerequisites: None. | | Occ | LEC 2.0 2.0 2.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | enterprises, sovereignty, technology transfer, arbitration, negotiation and diplomacy | | | | | |
| IBS108 | 1997 Fall | Basics of Import/Export Operations | | An overview of the steps involved in importing and exporting a product or service from beginning to end. Course includes an introduction to the United States Customs Service, what customs brokers do, duty rate structure and determination, basic laws affecting imports, currency exchange and letters of credit. Practical advice about storage and transportation of shipments after they have cleared customs. Other topics will include marketing, organization, regulations, terms of sale, documentation, shipment and financing involved with international enterprises, sovereignty, technology transfer, arbitration, negotiation, and diplomacy | Prerequisites: None. | | Occ | LEC 2.0 2.0 2.0 | S |
| IBS109 | 2000 Fall | Cultural Dimension for International Trade | | The importance of cultural sensitivity in international business relations investigated by studying the impact of geography, history, religion, politics, customs and cross-cultural communications on society | Prerequisites: None. | Course Attribute(s): General Education Designation: Global Awareness - [G] General Education Designation: Social and Behavioral Sciences - [SB] | Occ | LEC 3.0 3.0 3.0 | S |
| IBS116 | 2004 Summer I | Export/Import Management | | Basics of importing and exporting processes with focus on documentation and procedures. Includes transportation and distribution options, freight forwarders, International Common Terms (INCO) shipping terms, packaging strategies, contract | Prerequisites: A grade of C or better in IBS101 or permission of Instructor. | | | LEC 3.0 3.0 3.0 | S |



Occ

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | negotiation, and execution of international contracts | | | | | |
| IBS118 | 2004 Summer I | International Marketing Management | | Planning, implementing, and managing international marketing strategies through application of international marketing research and evaluation in diverse cultural, economic, and political environments. Emphasis on implementation of product, price, promotion, and distribution strategies | Prerequisites: A grade of C or better in IBS101 or permission of Instructor. | | Occ | LEC 3.0 3.0 3.0 | S |
| IBS123 | 2004 Summer I | U.S. Customs and Export Licensing Regulations | | Requirements for importing into the United States, and for export clearance, licensing, and foreign entry. Includes role of customs brokers, duty rate structure and determination as well as Commerce Control List (CCL) and Export Control Commodity Numbering (ECCN), export licenses, and governmental requirements regarding exports | Prerequisites: A grade of C or better in IBS101 or permission of Instructor. | | Occ | LEC 3.0 3.0 3.0 | S |
| IBS140 | 2004 Summer I | International Financial Management | | Development of foreign exchange and international banking, including methods of payment, export financing, and application for and administration of government loan programs, country risk analysis, and negotiation and processing of letter of credit and other payment methods | Prerequisites: A grade of C or better in IBS101 or permission of Instructor. | | Occ | LEC 3.0 3.0 3.0 | S |
| IBS298AC | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. | Prerequisites: Permission of Program Director or Instructor. | | Occ | LAB 3.0 3.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | | | | | |
| ICE220 | 2017 Spring | Sectional Anatomy | DMI220 DMS220 | Sectional human anatomy in the transverse, sagittal and coronal planes. Emphasis on the brain, neck, chest, abdomen and pelvic cavity. | Prerequisites: (BIO160 or BIO201) and (HCC145 or HCC146), or a graduate of a related medical program of study or currently registered as a technologist in radiography, nuclear medicine, radiation therapy or sonography OR Admission to the Medical Radiography Program or permission of Instructor. | | Occ | LEC 3.0 3.0 3.0 | S |
| ICE223 | 2023 Fall | Introduction to Computed Tomography | | Overview of the principles and operation of computed tomography (CT) scanner. Content includes history, physics processes, instrumentation components, imaging acquisition, reconstruction and display for computed tomography imaging. | Prerequisites: Admission to the Medical Radiography Program or permission of Instructor. | | Occ | LEC 1.0 1.0 1.0 | S |
| ICE229 | 2015 Fall | Magnetic Resonance (MR) Multi-Planar Sectional Anatomy | | Three dimensional anatomy presented in transverse, sagittal and coronal planes of specified regions of the human body as viewed from magnetic resonance imagery. Includes structure identification of the bones, muscles, vascular system, organs, soft tissue components and weighted imaging. | Prerequisites: [(Certified by American Registry of Radiologic Technologists (ARRT) in Radiography or in Radiation Therapy), or (certified by ARRT or the Nuclear Medicine Technology Certification Board (NMTCB) in Nuclear Medicine), or (certified by American Registry of Diagnostic Medical Sonography (ARDMS) or ARRT in | Occ | | LEC 2.0 2.0 2.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | Diagnostic Medical Sonography), or (Radiography, Radiation Therapist, Nuclear Medicine, or Sonography student currently enrolled at GateWay), or registry eligible graduate] and DMI/DMS/ICE220 and ICE233. | | | | |
| ICE231 | 2013 Spring | Professional and Patient Interactions | | Principles of verbal and non-verbal communication skills through the development of understanding self, patients, colleagues and others. Includes verbal communication, written instructions, communications devices, telephone protocol, resume writing and job interviewing techniques | Prerequisites: None. | | Occ | LEC 2.0 2.0 2.0 | S |
| ICE233 | 2015 Summer | Fundamentals of Magnetic Resonance Imaging (MRI) | | Overview of magnetic resonance imaging, program policies and student responsibilities. Includes fundamental principles of magnetic resonance imaging (MRI), primary and secondary equipment, and MRI terminology. Imaging parameters, clinical applications overview for MRI and preparation for physics, instrumentation, and safety coursework. Basic overview of safety issues and MRI contrast agents. | Prerequisites: (Certified by American Registry of Radiologic Technologists (ARRT) in Radiography or in Radiation Therapy), or (certified by ARRT or the Nuclear Medicine Technology Certification Board (NMTCB) in Nuclear Medicine), or (certified by American Registry of Diagnostic Medical Sonography (ARDMS) or ARRT in Diagnostic Medical Sonography), or (Radiography, Radiation Therapist, Nuclear Medicine or Sonography student currently enrolled at GateWay), or registry eligible graduate. | Occ | | LEC 1.0 1.0 1.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | Corequisites: DMI/DMS/ICE220 or permission of Department or Division. | | | | |
| ICE240 | 2008 Spring | Fundamentals of Positron Emission Tomography | | Overview of Positron Emission Tomography (PET). Comparison to other diagnostic imaging modalities. History of PET, applications and importance. Introduction to PET radiation safety. | Prerequisites: Completion of Associate in Applied Science in Medical Radiography or completion of Associate in Applied Science in Nuclear Medicine Technology or completion of Certificate of Completion in Radiation Therapy program or Corequisites: DMI220 ICE220 or permission of Department or Division. | Occ | | LEC 1.0 1.0 1.0 | S |
| ICE248 | 2016 Summer | Computed Tomography (CT) Multi-Planar Sectional Anatomy | | Sectional human anatomy in the transverse, sagittal and coronal planes. Multi-planar emphasis on the musculoskeletal system to include multi-planar imaging of the facial bones, cervical, thoracic and lumbar spine, and extremities; and the heart and vascular structures. | Prerequisites: [(Certified by American Registry of Radiologic Technologists (ARRT) in Radiography or in Radiation Therapy), or (certified by ARRT or the Nuclear Medicine Technology Certification Board (NMTCB) in Nuclear Medicine), or (Radiography or Nuclear Medicine student currently enrolled at GateWay), or registry eligible graduates] and DMI/DMS/ICE220 and (DMI/ICE223 or NUC250) with a grade of "C" or higher, or permission of Instructor. | | Occ | LEC 2.0 2.0 2.0 | S |
| ICE250 | 2022 Fall | Mammography | | Screening and diagnostic mammography. Includes anatomy, positioning, equipment, patient history, clinical breast examination, | Prerequisites: American Registry of Radiologic Technologists (A.R.R.T.) certification | | | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | and image evaluation related to mammography. Breast pathology along with advanced testing and treatments, including other imaging modalities. | or permission of Program Director. | | | | |
| ICE254 | 2013 Fall | Advanced Imaging Practicum | | Advanced imaging procedures for the Graduate Radiologic Technologist from American Registry of Radiologic Technologists (ARRT) or registry eligible graduate performed under strict supervision. Use of correct technical and positioning techniques. Apply safety measures and procedures established by the institution and college. Observe ethical and legal guidelines and use of effective communication skills. | Prerequisites: [(Certified by American Registry of Radiologic Technologists (ARRT) in Radiography or in Radiation Therapy), or (certified by ARRT or the Nuclear Medicine Technology Certification Board (NMTCB) in Nuclear Medicine), or (Radiography or Nuclear Medicine student currently enrolled at GateWay), or registry eligible graduates] or permission of Instructor. | ICE254 may be repeated for a total of ten (10) credit hours. | Occ | LAB 1.0 6.0 0.0 | C |
| ICE263 | 2016 Summer | Computed Tomography Physics and Instrumentation | | Overview and evolution of Computed Tomography (CT) in medical imaging to include: X ray production, CT principles, system components and operation; image acquisition, processing, reconstruction, and display; artifacts, quality assurance, radiation dosimetry and patient safety; contrast administration, imaging protocols; and competencies as outlined by American Registry of Radiologic Technologists ( ARRT) for the CT Certification Examination. | Prerequisites:[(Certified by American Registry of Radiologic Technologists (ARRT) in Radiography or in Radiation Therapy), or (certified by ARRT or the Nuclear Medicine Technology Certification Board (NMTCB) in Nuclear Medicine), or (Radiography or Nuclear Medicine student currently enrolled at GateWay), or registry eligible graduates] and DMI/DMS/ICE220 and (DMI/ICE223 or NUC250) with a grade of "C" or higher, or permission of Instructor. | | Occ | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| ICE264 | 2015 Fall | MRI Physics, Instrumentation and Safety | | An overview into the physics, equipment, physical design, and image characteristics of Magnetic Resonance Imaging (MRI) systems. | Prerequisites: [(Certified by American Registry of Radiologic Technologists (ARRT) in Radiography or in Radiation Therapy), or (certified by ARRT or the Nuclear Medicine Technology Certification Board (NMTCB) in Nuclear Medicine), or (certified by American Registry of Diagnostic Medical Sonography (ARDMS) or ARRT in Diagnostic Medical Sonography), or (Radiography, Radiation Therapist, Nuclear Medicine, or Sonography student currently enrolled at GateWay), or registry eligible graduate] and DMI/DMS/ICE220 and ICE233. | | Occ | LEC 3.0 3.0 3.0 | S |
| ICE265 | 2016 Summer | Computed Tomography Procedure Protocols | | Standard procedures and protocols for Computed Tomography (CT) imaging in alignment with the American Society of Radiologic Technologists (ASRT) examination curriculum outline. Includes patient preparation and safety, choosing appropriate protocols, interventional procedures, contrast indicators, post-exam processing quality issues, and adapting to atypical scanning situations. | Prerequisites: [(Certified by American Registry of Radiologic Technologists (ARRT) in Radiography or in Radiation Therapy), or (certified by ARRT or the Nuclear Medicine Technology Certification Board (NMTCB) in Nuclear Medicine), or (Radiography or Nuclear Medicine student currently enrolled at GateWay), or registry eligible graduate] and ( DMI/ICE223 or NUC250), and ICE248, and ICE263 with a | Occ | | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | grade of "C" or higher, or permission of Instructor. | | | | |
| ICE267 | 2015 Fall | Computed Tomography Advanced Imaging Practicum | | Computed Tomography advanced imaging clinical practicum for those certified by American Registry of Radiologic Technologists (ARRT) in Radiography or in Radiation Therapy, or certified by ARRT or the Nuclear Medicine Technology Certification Board (NMTCB) in Nuclear Medicine, or current Radiography or Nuclear Medicine student, or registry eligible graduates to perform under strict supervision. Use of correct computed tomography instrumentation, protocol implementation and positioning techniques. Apply patient safety measures and follow As Low As Reasonably Achievable (ALARA) practices to reduce radiation dose as established by the institution. Practice within established ethical and legal guidelines. Use effective communication skills. | Prerequisites: Currently enrolled in the Computed Tomography Program. | | Occ | LAB 2.0 12.0 0.0 | C |
| ICE268 | 2016 Fall | MRI Advanced Imaging Practicum | | Advanced Magnetic Resonance imaging (MRI) clinical practicum is for those certified by the American Registry of Radiologic Technologists (ARRT) in Radiography, Radiation Therapy, or Sonography, or certified by ARRT of the Nuclear Medicine Technology Certification Board (NMTCB) in Nuclear Medicine. Use of correct magnetic resonance imaging instrumentation, | Prerequisites: Currently enrolled in the Magnetic Resonance Imaging Program. | ICE268 may be repeated for a total of four (4) credit hours. | Occ | LAB 2.0 12.0 0.0 | C |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | protocol implementation and positioning techniques. Apply MRI safety, quality control procedures and effective patient care and communication skills. | | | | | |
| ICE269 | 2015 Fall | Magnetic Resonance Procedure Protocols | | Imaging techniques related to the central nervous system (CNS), neck, thorax, musculoskeletal system and abdominopelvic regions. Specific clinical application, available coils and use. Considerations in scan sequences, specific choices in protocols including slice thickness, phase direction, flow compensation, and positioning criteria. Anatomical structures and plane that best demonstrates anatomy. Signal characteristics of normal and abnormal structures. | Prerequisites: [(Certified by American Registry of Radiologic Technologists (ARRT) in Radiography or in Radiation Therapy), or (certified by ARRT or the Nuclear Medicine Technology Certification Board (NMTCB) in Nuclear Medicine), or Certified by the American Registry of Diagnostic Medical Sonography (ARDMS) or (Radiography or Nuclear Medicine student), or registry eligible graduate] and ICE233 and ICE264 with a grade of "C" or higher, or permission of Instructor. | | Occ | LEC 3.0 3.0 3.0 | S |
| ICE270 | 1999 Fall | Contrast Media | | Functions and applications of contrast media used in diagnostic radiographic imaging procedures. Chemical characteristics and properties of contrast media. Indications and contraindications including potential hazards of contrast media administration. Adverse reactions, patient care associated with reactions and medicolegal issues associated with administration of contrast media | Graduate radiologic technologist or permission of Instructor. | | Occ | LEC 0.5 0.5 0.5 | S |
| ICE271 | 1999 Fall | Physiologic Monitoring | | Physiologic monitoring to include electrophysiology of the heart, electrocardiography, | Graduate radiologic technologist or permission of Instructor. | | Occ | LEC 0.5 0.5 0.5 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | rhythms and dysrhythmias. Hemodynamic monitoring including equipment, parameters, and cardiovascular pressures. Vital signs to include normal and abnormal values | | | | | |
| ICE272 | 2015 Fall | Magnetic Resonance Pathology | | Common pathologies found in magnetic resonance imaging, their appearance with various imaging protocols including all commonly imaged body systems and areas. Case studies and images of the pathologies to reinforce the lectures. | Prerequisites: [(Certified by American Registry of Radiologic Technologists (ARRT) in Radiography or in Radiation Therapy), or (certified by ARRT or the Nuclear Medicine Technology Certification Board (NMTCB) in Nuclear Medicine), or Certified by the American Registry of Diagnostic Medical Sonography (ARDMS) or (Radiography or Nuclear Medicine student), or registry eligible graduate] and ICE233 and ICE229 with a grade of "C" or higher, or permission of Instructor. | | Occ | LEC 3.0 3.0 3.0 | S |
| ICE273 | 2013 Fall | Computed Tomography Pathology | | Common diseases diagnosed using Computed Tomography (CT) imaging. Appearance of pathology on CT to include: physiology, etiology, indications for exam, findings, and diagnosis. Case studies, images, and descriptions of pathologic conditions in various body systems will be presented in alignment with CT certification guidelines published by the American Registry of Radiologic Technologists (ARRT). | [(Certified by American Registry of Radiologic Technologists (ARRT) in Radiography or in Radiation Therapy), or (certified by ARRT or the Nuclear Medicine Technology Certification Board (NMTCB) in Nuclear Medicine), or (Radiography or Nuclear Medicine student currently enrolled at GateWay), or registry eligible graduate] and | Occ | | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | DMI/DMS/ICE220 and ICE248 with a grade of "C" or higher, or permission of Instructor. | | | | |
| ICE290 | 1999 Fall | Registry and Board Examinations Preparation | | Preparation for the American Registry of Radiologic Technologist ( ARRT) and the Medical Radiologic Technology Board of Examiners (MRTBE)examinations. Review of the ARRT and MRTBE content specifications, techniques for preparation and review of current literature | Qualified individuals preparing for the ARRT and MRTBE or permission of Department or Division. | | | LEC 1.0 1.0 1.0 | S |
| ICE291 | 2023 Fall | Computed Tomography Registry and Board Exam Preparation | NUC291 | Discussion of concepts outlined in the American Registry of Radiologic Technologists (ARRT) published content specifications for their post-primary certification exam in computed tomography (CT). | Prerequisites: Permission of the Program Director or Instructor. | Occ | Occ | LEC 1.0 1.0 1.0 | S |
| ICE292 | 2008 Fall | MRI Board Exam Review Preparation | | Preparation for the American Registry of Radiologic Technologists (ARRT) Medical Resonance Imaging (MRI) examination. Review of elements required to pass the AART examination, including patient care and safety, imaging procedures, data acquisition, and physical principles of image formation. | Prerequisites: A grade of C or better in DMI220, ICE220, ICE229, ICE233, ICE264, ICE269 and ICE272. Corequisites: ICE254. | | Occ | LEC 1.0 1.0 1.0 | S |
| ICE293 | 2013 Spring | Registry Examination Preparation in Vascular- Interventional Radiography | | Preparation for the American Registry of Radiologic Technologist (ARRT) in Vascular Interventional Radiography examination. Review of the ARRT content specifications, techniques for preparation, and review of current literature. | Prerequisites: Registered Radiographers preparing for the American Registry of Radiologic Technologist (ARRT) Vascular Interventional Radiography examination or permission of Instructor. | ICE293 may be repeated for credit. | Occ | LEC 1.0 1.0 1.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| ICE298AA | 2001 Spring | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | Prerequisites: None. | | Occ | LAB 1.0 1.0 0.0 | Z |
| ICE298AB | 2001 Spring | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | Prerequisites: None. | | Occ | LAB 2.0 2.0 0.0 | Z |
| ICE298AC | 2001 Spring | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student | Prerequisites: None. | | Occ | LAB 3.0 3.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | development. COMMON COMPETENCY COURSE | | | | | |
| IEC101 | 1995 Fall | Basic Electricity | | Electrical and first aid safety. Introduction to electricity, trade math, wiring techniques. Introduction to the National Electrical Code | Prerequisites: None. | | Occ | LEC 5.0 5.0 5.0 | S |
| IEC102 | 2001 Spring | Electrical Residential | | Series-parallel circuits, governing bodies, residential wiring practices, Kirchhoff's Law, kitchen outlets, heating systems, low voltage systems, service entrance requirements and swimming pools | Prerequisites: A grade of C or better in IEC101 or permission of Instructor. | | Occ | LEC 5.0 5.0 5.0 | S |
| IEC104 | 2021 Fall | Wiring Motors and Transformers | | Sizes of wire, conduit and boxes; National Electric Code, sizing service and feeders, sizing transformers and protection of transformers | Prerequisites: Permission of Instructor. | | Occ | LEC 5.0 5.0 5.0 | S |
| IEC105 | 2018 Fall | Electric Blueprint Reading | | Three-phase systems, transformers, and blueprint reading, construction process, plumbing, masonry and welding blueprints as well as mechanical systems; electrical blueprints and grounding. | Prerequisites: A grade of C or better in IEC104 or permission of Instructor. | | Occ | L+L 5.0 5.0 5.0 | T |
| IEC106 | 2018 Fall | Electric Motor Controls | | Motor Control system, alternating current (AC) and direct current (DC) contactors and magnetic motor starters; time delay circuits, reversing circuits, power distribution systems and hazardous locations, signs and fiber optics. | Prerequisites: A grade of C or better in IEC105 or permission of Instructor. | | Occ | L+L 5.0 5.0 5.0 | T |
| IEC108 | 2021 Fall | Alarm Systems and Codes | | Fire and signaling systems. Installation and start-up of fire alarm systems, fire alarm maintenance and troubleshooting. Wiring methods and materials, circuits and equipment protection, motors and air conditioning circuits, transformers and generating. Dwelling occupancies, | Prerequisites: Permission of Instructor. | | Occ | LEC 5.0 5.0 5.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | industrial and commercial locations, hazardous locations- swimming pool and leadership | | | | | |
| IEC298AA | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | Prerequisites: Permission of Program Director or Instructor. | Occ | | LAB 1.0 1.0 0.0 | Z |
| IEC298AB | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | Prerequisites: Permission of Program Director or Instructor. | Occ | | LAB 2.0 2.0 0.0 | Z |
| IEC298AC | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. | Prerequisites: Permission of Program Director or Instructor. | | | LAB 3.0 3.0 0.0 | Z |



Occ

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | | | | | |
| IFS110 | 2017 Spring | Critical Research for College Success | | Access, evaluate, and incorporate sources appropriately into academic projects. | Prerequisites: None. | IFS110 may be repeated for a total of four (4) credit hours. | Acad | LEC 1.0 1.0 1.0 | S |
| IFS112 | 2018 Spring | College Research Foundations | | Development of research skills and competencies essential for college success including accessing, evaluating, and incorporating information sources into academic projects. Examination of information ecosystems, online presence, and the implications of one's information seeking behaviors. | Prerequisites: None. | | Acad | LEC 3.0 3.0 3.0 | S |
| IFS201 | 2018 Spring | Information in a Post-Truth World | | Development of critical thinking skills in using information. Exploration of how information can be used as a tool or a weapon. Explanation of the role of information as a consumer and creator. Recognition of the impact of culture and worldview on how information is understood, created, and disseminated. | Prerequisites: A grade of C or better in ENG101 or ENG107. | Course Attribute(s): General Education Designation: Literacy and Critical Inquiry - [L] General Education Designation: Social-Behavioral Sciences - [SB] | Acad | LEC 3.0 3.0 3.0 | S |
| IFS210 | 2020 Fall | Information Without Borders: Research in a Global Society | | A comparative study focused on access to digital information in a global environment. Explore the global culture developing around the Internet and the impact of local, national and global cultures as well as economic and social factors related to the flow of information in a global society. Examine emerging technologies to produce and | Prerequisites: None. | IFS210 may be repeated for a total of six (6) credit hours. | Acad | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | distribute information across cultures in a global society in an ethical manner. | | | | | |
| IFS213 | 2021 Fall | Hacking and Open Source Culture | | Focus on the multi-dimensions of hacking and open source culture, including rule-breaking, innovation, and creative use of programming/technology. Social, economic, cultural, and political implications of hacking and technology, in historical and contemporary contexts will be addressed. | Prerequisites: None. | Course Attribute(s): General Education Designation: Social-Behavioral Sciences - [SB] General Education Designation: Historical Awareness - [H] | Acad | LEC 3.0 3.0 3.0 | S |
| IFS215 | 2023 Fall | Health Information and Cultural Communities | | Investigates impact of cultural diversity (ex: linguistic, religious, racial, ethnic, and gender groups) on health literacy by exploring characteristics of culturally competent health information. Examines barriers to high quality, culturally competent health information and creates methods of providing relevant information to low literacy populations. | Prerequisites: A grade of C or better in ENG101 or ENG107. | | Acad | LEC 3.0 3.0 3.0 | S |
| IGS290 | 2001 Fall | Integrated Studies | | Integrated nature of human experience. Critical inquiry of a particular theme from a wide variety of academic viewpoints. Synthesis of knowledge and skills. Evaluation of experience and decisions from ethical, aesthetic, and intellectual perspectives. Preparation of three formal papers. | Prerequisites: A grade of C or better in ENG101 or ENG107 or equivalent. | | Acad | LEC 3.0 3.0 3.0 | S |
| IGS290AA | 1996 Fall | Integrated Studies | | Integrated nature of human experience. Critical inquiry of a particular theme from a wide variety of academic viewpoints. Synthesis of knowledge and skills. Evaluation of experience and decisions from ethical, | Prerequisites: None. | | Acad | LEC 2.0 2.0 2.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | aesthetic, and intellectual perspectives. Preparation of two formal papers | | | | | |
| IGS290AB | 1993 Fall | Integrated Studies | | Preparation of a formal paper related to IGS290AA that demonstrates competency in gathering, interpreting and evaluating evidence. | Prerequisites: A grade of C or better in IGS290AA or Corequisites: IGS290AA. | | | LEC 1.0 1.0 1.0 | S |
| IGS291 | 2010 Summer I | Studies in Global Awareness | | Interdisciplinary examination of selected topics in global awareness. Study of the human organization and modern global interdependence. Selected topics vary | Prerequisites: A grade of C or better in ENG101 or ENG107 or equivalent. | Course Attribute(s): General Education Designation: Global Awareness - [G] | Acad | LEC 3.0 3.0 3.0 | S |
| IGS291AA | 1996 Fall | Studies in Global Awareness | | Interdisciplinary examination of selected topics in global awareness. Study of the human organization and modern global interdependence. Selected topics vary | Prerequisites: None. | '<br>Acad | Acad | LEC 1.0 1.0 1.0 | S |
| IGS292 | 1999 Fall | Studies in Cultural Diversity | | Interdisciplinary examination of selected topics in cultural diversity. Study of the interrelationships among diverse cultures within the contemporary United States. Selected topics vary | Prerequisites: A grade of C or better in ENG101 or ENG107 or equivalent. | Course Attribute(s): General Education Designation: Cultural Diversity - [C] | Acad | LEC 3.0 3.0 3.0 | S |
| IGS292AA | 1996 Fall | Studies in Cultural Diversity | | Interdisciplinary examination of selected topics in cultural diversity. Study of the interrelationships among diverse cultures within the contemporary United States. Selected topics vary | Prerequisites: None. | | Acad | LEC 1.0 1.0 1.0 | S |
| IGS293 | 2010 Summer I | Studies in Historical Awareness | | Interdisciplinary examination of selected topics in historical awareness. Study of the historical method and of human events that have created modern life. Selected topics vary. | Prerequisites: A grade of C or better in ENG101 or ENG107 or equivalent. | | Acad | LEC 3.0 3.0 3.0 | S |
| IGS293AA | 1996 Fall | Studies in Historical Awareness | | Interdisciplinary examination of selected topics in historical awareness. Study of the | Prerequisites: None. | | Acad | LEC 1.0 1.0 1.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | historical method and of human events that have created modern life. Selected topics vary | | | | | |
| IGS294 | 2005 Fall | Integrative Study of the Future | | Integrative and interdisciplinary study of the future. Critical inquiry of the future from historical, philosophical, literary, scientific, social, psychological, and religious perspectives. Comprehensive review of contemporary scientific- technological, environmental, and global and cultural trends and possible directions in the future. Synthesis of theoretical knowledge and practical and personal applications | Prerequisites: A grade of C or better in ENG101 or ENG107 or equivalent. | | Acad | LEC 3.0 3.0 3.0 | S |
| IMC112 | 2018 Fall | Introduction to Mechanical Trades Construction | | Theories and concepts for mechanical trades construction: Basic safety, materials handling and construction math. Application and maintenance of hand and power tools, and basic rigging. Types and interpretation of construction drawings. Introduction to basic communication and employability skills. | Prerequisites: Registered apprenticeship status or permission of Apprenticeship Coordinator. | | Occ | L+L 6.0 6.0 6.0 | T |
| IMC114 | 2018 Fall | Overview of Mechanical Trades: Sheet Metal, Pipefitting, and Plumbing | | Overview of the work performed in the mechanical trades. Theories and concepts of care, use, and safety procedures related to hand and power tools motorized equipment. Introductory concepts in construction drawings, safety hazards and installation of ductwork. | Prerequisites: Registered apprenticeship status or permission of Apprenticeship Coordinator. | | Occ | L+L 6.0 6.0 6.0 | T |
| IMC120 | 2018 Fall | Plumbing, Drain, and Waste Piping | | Interpretation and grade requirements for drain piping. Planning, testing, and | Prerequisites: None. | | Occ | L+L 3.0 3.0 3.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | installation of specific types of drains. | | | | | |
| IMC122 | 2018 Fall | Multiple Trades Cross Training: Tubes, Fittings and Piping Systems | | Principles of architectural sheet metal, copper tube and fittings, carbon steel pipe and fittings, mechanical piping systems, and plastic pipe and fittings. Introductory concepts of drain, waste and vent (DWV) systems, soldering for sheet metal and pipefitting power tools. | Prerequisites: Registered apprenticeship status or permission of Apprenticeship Coordinator. | | Occ | L+L 6.0 6.0 6.0 | T |
| IMC124 | 2018 Fall | Multiple Trades Cross Training: Standards | | Fundamentals and theories of trade standards for sheet metal, plumbing systems, and mechanical piping systems installation. | Prerequisites: Registered apprenticeship status or permission of Apprenticeship Coordinator. | | Occ | L+L 6.0 6.0 6.0 | T |
| IMC231 | 2018 Fall | Mechanical Trades Construction: Plumbing Intermediate Principles and Concepts | | Intermediate principles and concepts for the plumbing trade related to commercial drawings and calculations. Installation of fixtures, valves, faucets, roof, floor and area drain. Types of drains and fuel gas systems. | Prerequisites: Registered apprenticeship status or permission of Apprenticeship Coordinator. | | Occ | L+L 6.0 6.0 6.0 | T |
| IMC233 | 2018 Fall | Mechanical Trades Construction: Sheet Metal Intermediate Principles and Concepts | | Intermediate principles and concepts for the sheet metal trade related to duct fabrication standards, air properties, bend allowances, field measuring, and triangulation. | Prerequisites: Registered apprenticeship status or permission of Apprenticeship Coordinator. | | Occ | L+L 6.0 6.0 6.0 | T |
| IMC235 | 2018 Fall | Mechanical Trades Construction: Pipefitting Intermediate Principles and Concepts | | Intermediate principles and concepts for the pipefitting trade related to trade calculations, motorized equipment, above ground pipe installation. Emphasis on field routing, vessel trim, pipe hangers and support, testing systems and equipment. | Prerequisites: Registered apprenticeship status or permission of Apprenticeship Coordinator. | | Occ | L+L 6.0 6.0 6.0 | T |
| IMC236 | 2018 Fall | Mechanical Trades Construction: Plumbing Advanced Principles and Concepts | | Advanced principles and concepts for the plumbing trade related to water supply piping installation, testing, and | Prerequisites: Registered apprenticeship status or permission of | | Occ | L+L 6.0 6.0 6.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | sizing. Application of advanced trade calculations and fundamentals of backflow prevention and types of venting. | Apprenticeship Coordinator. | | | | |
| IMC237 | 2018 Fall | Mechanical Trades Construction: Sheet Metal Advanced Principles and Concepts | | Advanced principles and concepts for the sheet metal trade related to piping practices, radial line development, layout and fabrication. Emphasis on air systems, shop production and organization. | Prerequisites: Registered apprenticeship status or permission of Apprenticeship Coordinator. | | Occ | L+L 6.0 6.0 6.0 | T |
| IMC238 | 2018 Fall | Mechanical Trades Construction: Pipefitting Advanced Principles and Concepts | | Advanced principles and concepts for the pipefitting trade relative to blueprint reading, drawing, and detail sheets. Advanced application of weld pipe fabrication, rigging, standards, and specifications. | Prerequisites: Registered apprenticeship status or permission of Apprenticeship Coordinator. | | Occ | L+L 6.0 6.0 6.0 | T |
| IMC241 | 2018 Fall | Mechanical Trades Construction: Plumbing Advanced Skill Building | | Application and review of advanced principles for drain, waste and vent (DWV) systems, pumps, compressed air systems, and potable water treatment. Fundamentals of business practices for plumbers. | Prerequisites: Registered apprenticeship status or permission of Apprenticeship Coordinator. | | Occ | L+L 6.0 6.0 6.0 | T |
| IMC243 | 2018 Fall | Mechanical Trades Construction: Sheet Metal Advanced Skill Building | | Application and review of advanced sheet metal layout, fabrication, and installation. Review principles of airflow, air distribution systems, standards, comprehensive planning and specification reading. | Prerequisites: Registered apprenticeship status or permission of Apprenticeship Coordinator. | | Occ | L+L 6.0 6.0 6.0 | T |
| IMC245 | 2018 Fall | Mechanical Trades Construction: Pipefitting Advanced Skill Building | | Application and review of advanced principles and concepts for valve maintenance, hot taps, special piping, and pipe fabrication. | Prerequisites: Registered apprenticeship status or permission of Apprenticeship Coordinator. | | Occ | L+L 6.0 6.0 6.0 | T |
| IMC246 | 2018 Fall | Mechanical Trades Construction: Plumbing Advanced Applications and Techniques | | Application and review of advanced plumbing techniques for water pressure | Prerequisites: Registered apprenticeship status or | | Occ | L+L 6.0 6.0 6.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | boosters, recirculation systems, review and function of codes for indirect and special wastes and the plumbing industry. Introduction to hydronic and solar heating systems, servicing piping systems, fixtures and appliances. Team leadership skills. | permission of Apprenticeship Coordinator. | | | | |
| IMC247 | 2018 Fall | Mechanical Trades Construction: Sheet Metal Advanced Applications and Techniques | | Application and review of advanced sheet metal techniques for air testing and balancing. Review of codes and specifications pertaining to fume and exhaust system design including review and practice of lay out patterns, fabrication and selection of sheet metal fittings. | Prerequisites: Registered apprenticeship status or permission of Apprenticeship Coordinator. | | Occ | L+L 6.0 6.0 6.0 | T |
| IMC248 | 2018 Fall | Mechanical Trades Construction: Pipefitting Advanced Applications and Techniques | | Application and review of advanced pipefitting techniques for advanced blueprint reading, steam systems, stress relieving and aligning. Purpose and function of in-line specialties and an introduction to supervisory roles. | Prerequisites: Registered apprenticeship status or permission of Apprenticeship Coordinator. | | Occ | L+L 6.0 6.0 6.0 | T |
| IND110 | 2000 Spring | Introduction to the Printing Industry | | Brief history/introduction of graphic arts technologies including printing, photography, graphics and text. Safety and health practices, job estimating and trade customs as well as legal restrictions and requirements covered | Prerequisites: None. | | Occ | LEC 1.0 1.0 1.0 | S |
| IND111 | 2018 Fall | Paper, Binding and Finishing Techniques | | Finishing techniques and binding styles of paper. Covers paper properties, requirements, and grades. Various finishing and binding styles emphasized | Prerequisites: None. | | Occ | L+L 3.0 4.0 4.0 | T |
| IND112 | 2018 Fall | Lithographic Inks and Offset Press Operations | | Basic overview of lithographic inks and offset press | Prerequisites: None. | | Occ | L+L 2.0 3.0 3.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | operations. Sheet-fed and web-fed offset presses emphasized | | | | | |
| IND133AB | 1996 Spring | Speaking in Business - Delivering Communication Messages | | Practical, effective speech techniques for everyday business interactions. Examination of effective message preparation skills and communication styles and techniques | Prerequisites: None. | | Occ | LEC 1.0 1.0 1.0 | S |
| IND135 | 2011 Spring | Interpersonal Skills and Leadership in Construction | | Values and expectations of the workforce, building relationships, satisfying stakeholders. Effective communication, management grid, creating a leadership environment. Behavioral interviewing and professional development of personnel. | Prerequisites: None. | | Occ | LEC 1.0 1.0 1.0 | S |
| IND136 | 2010 Spring | Communications in Construction | ABA136 | Communication in the construction industry. Positive direct communication, written communication, active listening, understanding, negotiation, and dealing with difficult people. Communication skills at all organizational levels, with groups, combining oral and written communication for maximum effectiveness. | Prerequisites: None. | | Occ | LEC 1.0 1.0 1.0 | S |
| IND138 | 2019 Spring | Introduction to Project Management and Resource Control | CON138 | Technical and management skills such as preconstruction planning, cost and risk control and policy development. Criteria for project layout purchasing, subcontractor management, project layout. Preparation process for project start up, close out and alternate project delivery methods. Major factors which affect production control and production control standards. Project manager's role. | Prerequisites: None. | | Occ | LEC 1.0 1.0 1.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| IND140 | 2021 Fall | Construction Scheduling and Time Management | | Fundamental training in scheduling, including listing and sequencing, bar charts, network diagrams and methods of managing resources. Importance of formal schedules, job planning, and establishing priorities and alternative scheduling methods. | Prerequisites: None. | | Occ | LEC 1.0 1.0 1.0 | S |
| IND142 | 2022 Fall | Construction Safety/Loss Prevention | | Construction safety and loss prevention from the perspective of the construction superintendent. Includes communication and motivation for safety and loss prevention, project security and traffic control, and scheduling planning to prevent losses. Also includes loss prevention documents and inventories, assigning responsibility for safety and equipment maintenance, handling inclement weather and emergencies, and government regulations and inspections. | Prerequisites: None. | | Occ | LEC 1.0 1.0 1.0 | S |
| IND144 | 1988 Fall | Improving Construction Productivity | | Techniques for improving the productivity of construction projects including external factors influencing productivity, planning and communications as functions of a productive project, and the relationship of motivation and job satisfaction to productivity. Also presents techniques for evaluating methods improvement, including the use of time lapse photography and development of a methods improvement program, time management and delegating responsibility | Prerequisites: None. | | Occ | LEC 1.0 1.0 1.0 | S |
| IND150 | 2014 Fall | Construction Foreman | PNT150 | Examine the basic supervisory and leadership concepts and | Prerequisites: None. | | Occ | LEC 2.0 2.0 2.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | skills needed to manage a construction project. Includes basic theories of motivation, role of communications in construction project management,decision making process, planning and organizing, strategies, developing production schedules to control production, discussing accident prevention and loss control | | | | | |
| IND170AA | 1985 Fall | Training for Business, Industry, and Government - AA | | Customized one credit lecture course to meet the immediate training needs of business, industry, and government within Maricopa County. | Prerequisites: None. | IND170AA requisites are defined on the suffixed IND170 specific courses. | Occ | LEC 1.0 1.0 1.0 | S |
| IND170AB | 1985 Fall | Training for Business, Industry, and Government - AB | | Customized two credit lecture course to meet the immediate training needs of business, industry, and government within Maricopa County. | Prerequisites: None. | IND170AB requisites are defined on the suffixed IND170 specific courses. | Occ | LEC 2.0 2.0 2.0 | S |
| IND170AC | 1985 Fall | Training for Business, Industry, and Government - AC | | Customized three credit lecture course to meet the immediate training needs of business, industry, and government within Maricopa County. | Prerequisites: None. | IND170AC requisites are defined on the suffixed IND170 specific courses. | Occ | LEC 3.0 3.0 3.0 | S |
| IND170AD | 2018 Fall | Training for Business, Industry, and Government - AD | | Customized two credit lecture/lab course to meet the immediate training needs of business, industry, and government within Maricopa County. | Prerequisites: None. | IND170AD requisites are defined on the suffixed IND170 specific courses. | Occ | L+L 2.0 4.0 4.0 | T |
| IND170AE | 2018 Fall | Training for Business, Industry, and Government - AE | | Customized three credit lecture/lab course to meet the immediate training needs of business, industry, and government within Maricopa County. | Prerequisites: None. | IND170AE requisites are defined on the suffixed IND170 specific courses. | Occ | L+L 3.0 5.0 5.0 | T |
| IND170AF | 2018 Fall | Training for Business, Industry, and Government - AF | | Customized four credit lecture/lab course to meet the immediate training needs of business, industry, and | Prerequisites: None. | IND170AF requisites are defined on the suffixed IND170 specific courses. | Occ | L+L 4.0 6.0 6.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | government within Maricopa County. | | | | | |
| IND170AG | 1986 Fall | Training for Business, Industry, and Government - AG | | Customized one-half credit lecture course to meet the immediate training needs of business, industry, and government within Maricopa County. | Prerequisites: None. | IND170AG requisites are defined on the suffixed IND170 specific courses. | Occ | LEC 0.5 0.5 0.5 | S |
| IND170AH | 1990 Fall | Training for Business, Industry, and Government - AH | | Customized four credit lecture course to meet the immediate training needs of business, industry, and government within Maricopa County. | Prerequisites: None. | IND170AH requisites are defined on the suffixed IND170 specific courses. | Occ | LEC 4.0 4.0 4.0 | S |
| IND170AI | 1990 Fall | Training for Business, Industry, and Government - AI | | Customized five credit lecture course to meet the immediate training needs of business, industry, and government within Maricopa County. | Prerequisites: None. | IND170AI requisites are defined on the suffixed IND170 specific courses. | Occ | LEC 5.0 5.0 5.0 | S |
| IND170AJ | 1996 Spring | Training for Business, Industry, and Government - AJ | | Customized one and one-half credit lecture course to meet the immediate training needs of business, industry, and government within Maricopa County. | Prerequisites: None. | IND170AJ requisites are defined on the suffixed IND170 specific courses. | Occ | LEC 1.5 1.5 1.5 | S |
| IND170AK | 1996 Spring | Training for Business, Industry, and Government - AK | | Customized two and one-half credit lecture course to meet the immediate training needs of business, industry, and government within Maricopa County. | Prerequisites: None. | IND170AK requisites are defined on the suffixed IND170 specific courses. | Occ | LEC 2.5 2.5 2.5 | S |
| IND170AL | 1996 Spring | Training for Business, Industry, and Government - AL | | Customized three and one-half credit lecture course to meet the immediate training needs of business, industry, and government within Maricopa County. | Prerequisites: None. | IND170AL requisites are defined on the suffixed IND170 specific courses. | Occ | LEC 3.5 3.5 3.5 | S |
| IND170AM | 1996 Spring | Training for Business, Industry, and Government - AM | | Customized four and one-half credit lecture course to meet the immediate training needs of business, industry, and government within Maricopa County. | Prerequisites: None. | IND170AM requisites are defined on the suffixed IND170 specific courses. | Occ | LEC 4.5 4.5 4.5 | S |
| IND170AN | 1996 Spring | Training for Business, Industry, and Government - AN | | Customized one quarter credit lecture course to meet the immediate training needs of business, industry, and | Prerequisites: None. | IND170AN requisites are defined on the suffixed IND170 specific courses. | Occ | LEC 0.25 0.25 0.25 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | government within Maricopa County. | | | | | |
| IND170AO | 2018 Fall | Training for Business, Industry, and Government - AO | | Customized one credit lecture/lab course to meet immediate training needs of business, industry and government within Maricopa County. | Prerequisites: None. | IND170AO requisites are defined on the suffixed IND170 specific courses. | Occ | L+L 1.0 2.0 2.0 | T |
| IND170AP | 2018 Fall | Training for Business, Industry, and Government - AP | | Customized two credit lecture/lab course to meet the immediate training needs of business, industry, and government within Maricopa Country. | Prerequisites: None. | IND170AP requisites are defined on the suffixed IND170 specific courses. | Occ | L+L 2.0 3.0 3.0 | T |
| IND170AQ | 2018 Fall | Training for Business, Industry, and Government - AQ | | Customized three credit lecture/lab course to meet the immediate training needs of business, industry, and government within Maricopa Country. | Prerequisites: None. | IND170AQ requisites are defined on the suffixed IND170 specific courses. | Occ | L+L 3.0 4.0 4.0 | T |
| IND170AR | 2018 Fall | Training for Business, Industry, and Government - AR | | Customized one credit lab course to meet immediate training needs of business, industry and government within Maricopa County. | Prerequisites: None. | IND170AR requisites are defined on the suffixed IND170 specific courses. | Occ | LAB 1.0 2.0 2.0 | T |
| IND170AS | 2018 Fall | Training for Business. Industry, and Government - AS | | Customized 1.75 credit L+L course to meet immediate training needs of business, industry and government within Maricopa County. | Prerequisites: None. | IND170AS requisites are defined on the suffixed IND170 specific courses. | Occ | L+L 1.75 1.75 1.75 | T |
| IND170AT | 2018 Fall | Training for Business, Industry, and Government - AT | | Customized 1.25 credit L+L course to meet immediate training needs of business, industry and government. | Prerequisites: None. | IND170AT requisites are defined on the suffixed IND170 specific courses. | Occ | L+L 1.25 1.25 1.25 | T |
| IND170AU | 2018 Fall | Training for Business, Industry, and Government-AU | | Customized two credit lab course to meet immediate training needs of business, industry and government within Maricopa County. | Prerequisites: None. | IND170AU requisites are defined on the suffixed IND170 specific courses. | Occ | LAB 2.0 6.0 6.0 | T |
| IND170AV | 2018 Fall | Training for Business, Industry and Government-AV | | Customized three credit lab course to meet immediate training needs of business, industry and government within Maricopa County. | Prerequisites: None. | IND170AV requisites are defined on the suffixed IND170 specific courses. | Occ | LAB 3.0 9.0 9.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| IND170AW | 2018 Fall | Training for Business, Industry, and Government-AW | | Customized one credit lab course to meet immediate training needs of business, industry and government within Maricopa County. | Prerequisites: To be specified. | IND170AW requisites are defined on the suffixed IND170 specific courses. | Occ | LAB 1.0 3.0 3.0 | T |
| IND170AX | 2010 Fall | Training for Business, Industry, and Government-AX | | Customized twelve credit lecture course to meet immediate training needs of business, industry and government within Maricopa County. | Prerequisites: To be specified. | IND170AX requisites are defined on the suffixed IND170 specific courses. | Occ | LEC 12.0 12.0 12.0 | S |
| IND170BA | 2019 Fall | Training for Business, Industry, and Government-BA | | Customized two credit lecture with zero credit laboratory course to meet immediate training needs of business, industry and government within Maricopa County. | Prerequisites: To be specified. | IND170BA requisites are defined on the suffixed IND170 specific courses. | Occ | LEC 2.0 1.5 1.5 LAB 0.0 1.5 1.5 | R |
| IND170BB | 2019 Fall | Training for Business, Industry, and Government-BB | | Customized two credit lecture with zero credit laboratory course to meet immediate training needs of business, industry and government within Maricopa County. | Prerequisites: To be specified. | IND170BB requisites are defined on the suffixed IND170 specific courses. | Occ | LEC 4.0 2.0 2.0 LAB 0.0 6.0 6.0 | R |
| IND170BC | 2020 Spring | Training for Business, Industry, and Government-BC | | Customized four credit lecture with zero laboratory course to meet immediate training needs of business, industry and government within Maricopa County. | Prerequisites: To be specified. | IND170BC requisites are defined on the suffixed IND170 specific courses. | Occ | LEC 4.0 2.5 2.5 LAB 0.0 1.5 1.5 | R |
| IND170BD | 2020 Spring | Training for Business, Industry, and Government-BD | | Customized L+L 4.0 credits, 4.5 periods, 5.0 load course to meet immediate training needs of business, industry and government within Maricopa County. | Prerequisites: To be specified. | IND170BD requisites are defined on the suffixed IND170 specific courses. | Occ | L+L 4.0 4.5 5.0 | R |
| INS100 | 2018 Fall | Insurance Industry Profession | | Introduction to the insurance industry profession and environment. Includes identification of personal career goals, effective workplace behaviors and professionalism in the workplace in addition to strategies for problem solving and conflict management. Also covers the importance of | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | integrity and ethical behavior in the insurance industry. | | | | | |
| INS127 | 2021 Fall | Automobile Insurance General Policy Services | | Customer service emphasis on automobile insurance general policy services. Covers policy market and special policy status considerations, proof of insurance provision issues, and internal customer service operations. Includes web-based information management tool usage. | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| INS128 | 2021 Fall | Automobile Insurance Policy Billing | | Customer service emphasis on automobile insurance policy billing procedures. Includes policy coverages, billing inquiries, and payment processing. Emphasis on navigating billing systems and utilizing billing resources and tools for the customer service representative. | Prerequisites: None. | | Occ | L+L 2.0 4.0 4.0 | T |
| INS129 | 2021 Fall | Automobile Insurance Policy Changes | | Automobile insurance policy changes customer service procedures. Emphasis upon information associated with changing existing automobile insurance policy coverage. Covers policy issue and policy status change operations, driver and vehicle addition concerns, and policy cancellation procedures for the customer service representative. Includes title lien holder issues and model call flow identification. | Prerequisites: None. | | Occ | L+L 3.0 4.0 4.0 | T |
| INS130 | 2021 Fall | Automobile Insurance Policy Coverage | | Customer service procedures for managing automobile insurance policy changes and coverage concerns. Emphasis on policy changes and additions, including effective date determination. Covers change of address, principal | Prerequisites: None. | | Occ | L+L 3.0 4.0 4.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | operator, vehicle replacement and deletion information, as well as expiring policy changes requirements procedures. | | | | | |
| INS131 | 2021 Fall | Automobile Insurance Policy Cancellation and Reinstatement | | Customer service procedures for automobile insurance policy cancellation and reinstatement. Covers cancellation authority, cancel request escalation procedures, and cancelled policy premium refund or payment due determination. Includes policy rescission procedure information. | Prerequisites: None. | | Occ | L+L 3.0 4.0 4.0 | T |
| INS140 | 2019 Spring | Review for the Property and Casualty Insurance Agent Licensing Exam | | Preparation for the Property and Casualty Insurance Producer licensing exam required by the State of Arizona Department of Insurance for licensure as a Property/Casualty Insurance Agent. Covers the basic principles and legal parameters of property and casualty insurance including homeowners, auto, and business policies. Designed for students with no prior experience in the insurance field as well as those seeking to expand their licensing authority with the State of Arizona. | Prerequisites: None. | Licensure in Arizona as a Property and Casualty Insurance Producer requires fingerprinting and a criminal background check as well as a satisfactory score on the official licensing exam. This course includes neither the state exam nor any aspect of criminal background check. INS140 may be repeated for credit. | Occ | LEC 1.0 1.0 1.0 | S |
| INS150 | 2021 Fall | Introduction to Personal Lines Policies | | Introduction to personal lines policies for the customer service representative. Includes principles of insurance, contracts, and the role of regulation in the insurance industry. Covers various types of personal insurance including property, liability, dwelling, homeowner, and auto insurance in addition | Prerequisites: Permission of Department or Division. | | | LEC 3.0 3.0 3.0 | S |



Occ

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | to procedures for rating a policy. | | | | | |
| INS151 | 2021 Fall | Introduction to Commercial Property Policies | | Introduction to commercial property policies for the customer service representative. Includes principles of commercial property, business owner, and commercial insurance for businesses. Covers terminology, forms, and procedures for policy coverages, declarations, exclusions, and endorsements. | Prerequisites: Permission of Department or Division. | | | LEC 3.0 3.0 3.0 | S |
| INS155 | 2021 Fall | Fire Product Procedures | | Customer service emphasis on fire product procedures. Covers types of coverage, endorsements, discounts, and eligibility in addition to fair access concerns. Also includes procedures for quoting watercraft and homeowner fire coverage and use of state-specific guidelines and procedures. | Prerequisites: Permission of Department or Division. | Occ | | L+L 2.0 3.0 3.0 | T |
| INS200 | 2018 Fall | Principles of Property and Liability Insurance | | Basic principles of insurance. Introduction to insurance contracts. Overview of company functions and operations including ratemaking, underwriting, claims, adjusting, and marketing. | Prerequisites: None. | Occ | Occ | LEC 3.0 3.0 3.0 | S |
| INS205 | 2018 Fall | Personal Insurance | | Analysis of personal loss exposures and personal insurance coverages including homeowner's, other dwelling coverages, personal liability, auto, life, health, and government programs. | Prerequisites: A grade of C or better in INS200 or permission of Instructor. | | Occ | LEC 3.0 3.0 3.0 | S |
| INS210 | 2018 Fall | Commercial Insurance | | Analysis of commercial coverages including property, business income, inland marine, ocean marine, crime, boiler, general liability, auto, | Prerequisites: A grade of C or better in INS200 or permission of Instructor. | | Occ | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | and worker's compensation. Analysis of loss exposures and explanation of coverage parts. | | | | | |
| INS220 | 2018 Fall | Claim Handling Principles and Practices | | Introduction to the claim settlement process including skills for a claims adjuster/examiner. Covers structure of claim departments, handling claims, investigating claims, setting and maintaining loss reserves, and good faith claims. Communication and negotiating techniques are emphasized. | Prerequisites: A grade of C or better in INS100 and INS200. | | | LEC 3.0 3.0 3.0 | S |
| INS225 | 2018 Fall | Auto Claim Practices | | Overview of auto accident claims. Covers procedures for resolving vehicle damage claims including Alternative Dispute Resolution (ADR). Also covers investigating losses, analyzing liability, and costs and benefits of litigation. | Prerequisites: A grade of C or better in INS220. | Occ | Occ | LEC 3.0 3.0 3.0 | S |
| INS241 | 2020 Fall | Risk in an Evolving World | | Introduction to the risk management process and its role in identifying and managing exposure to loss. Process for establishing a framework for hazard identification and the use of analytical and technology tools to determine financial impact to business. | Prerequisites: A grade of C of better in INS210. | | Occ | LEC 3.0 3.0 3.0 | S |
| INS242 | 2020 Fall | Holistically Assessing Risk | | Examination of various risk identification and assessment techniques implemented by business to control potential loss exposures. Emphasis on understanding the impact of operational decisions and employee actions on losses and steps used to mitigate financial consequences. Detailed analysis of property, liability, management liability, | Prerequisites: A grade of C of better in INS241. | | Occ | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | cyber, and loss exposures as well as use of data analytics to manage risk assessment and control. | | | | | |
| INS243 | 2020 Fall | Successfully Treating Risk | | Evaluation of risk financing techniques available to organizations to provide funds to pay for losses incurred. Overview of financial elements of insurance, self-insurance, captives, and non-insurance transfers. Examination of non-traditional methods of financing including reinsurance, derivatives, catastrophe bonds, and insurance linked securities and their implementation to reduce hazard risk and market and credit risks faced by companies. | Prerequisites: A grade of C of better in INS241. | | Occ | LEC 3.0 3.0 3.0 | S |
| INS280 | 2021 Fall | Insurance Studies Internship Preparation | | Overview of essential skills necessary for an insurance studies student preparing to enter in the internship environment. Covers essential skills, self-evaluation, and resources available to an insurance student. | Prerequisites: A grade of C or better in INS200 and permission of Department or Division. | INS280 may be repeated for a total of three (3) credit hours. | Occ | L+L 1.0 1.0 1.0 | T |
| INS290AA | 2020 Fall | Internship for Insurance Studies | | Insurance work experience in industry. Eighty (80) hours of designated work per credit. | Prerequisites: Permission of Department or Division. | INS290AA may be repeated for a total of three (3) credit hours. | Occ | L+L 1.0 1.0 1.0 | T |
| INS290AB | 2020 Fall | Internship for Insurance Studies | | Insurance work experience in industry. Eighty (80) hours of designated work per credit. | Prerequisites: Permission of Department or Division. | INS290AB may be repeated for a total of six (6) credit hours. | Occ | L+L 2.0 2.0 2.0 | T |
| INT100 | 2018 Fall | Interior Design Drafting | | Basic manual drafting techniques used in the interior design industry. Focus on industry standards of equipment use, lettering, line work, dimensioning, scaling, and annotation. Introduction and practice of industry-specific drawing types, including floor plans, elevations, sections, details, | Prerequisites: None. | | Occ | L+L 3.0 6.0 6.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | multi- view projection, and paraline. Brief exploration of hand sketching and Computer-Aided Design (CAD) techniques as they relate to manual drafting | | | | | |
| INT105 | 2020 Fall | Introduction to Interior Design | | Overview of interior design and related professions, including the design process, elements and principles of design, and basic concepts of space planning and furniture layout. Development of design vocabulary relative to architectural details, furnishings, and finishes. | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| INT115 | 2020 Fall | Historical Architecture and Furniture | | Historical survey of the development of architecture, interiors, furniture, and decorative arts from antiquity to the Industrial Revolution. | Prerequisites: None. | Course Attribute(s): General Education Designation: Historical Awareness - [H] General Education Designation: Humanities, Arts and Design - [HU] | Occ | LEC 3.0 3.0 3.0 | S |
| INT120 | 2020 Fall | Modern Architecture and Furniture | | Survey of the development of architecture, interiors, furniture, and decorative arts from the Industrial Revolution to the present. Emphasis is on modern architects and designers. | Prerequisites: None. | Course Attribute(s): General Education Designation: Historical Awareness - [H] General Education Designation: Humanities, Arts and Design - [HU] | Occ | LEC 3.0 3.0 3.0 | S |
| INT122 | 2020 Fall | Digital Visualization for Design | | Introduction to raster based rendering techniques utilizing interior design and landscape drawings. Comparison of raster based rendering to vector based rendering and presentation techniques utilizing leading industry software such as Adobe Photoshop and Adobe Illustrator. | Prerequisites: None. | | Occ | L+L 3.0 6.0 6.0 | T |
| INT126 | 2019 Fall | Sewing for the Home | TEC126 | Provides students systemic skills and knowledge to plan and construct draperies, shades, pillows, bedding and other home furnishings through instructional projects. | Prerequisites: None. | Basic sewing skills are recommended. INT/TEC126 may be repeated for a total of nine (9) credit hours. | Occ | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Emphasizes techniques used in producing textile goods for the home. | | | | | |
| INT140 | 2018 Fall | Introduction to CAD for Interior Design | | This class focuses on the development of two-dimensional and three-dimensional spatial development through the use of Computer-Aided Design (CAD), computer-aided design for interior design following American Institute of Architects (AIA) guidelines. | Prerequisites: None. | | Occ | L+L 3.0 6.0 6.0 | T |
| INT145 | 2018 Fall | Drawing and Rendering | | Development of basic freehand sketching and perspective drawing skills. Explores styles and techniques with emphasis on quick sketch and presentation type drawings as used by design professionals. | Prerequisites: None. | | Occ | L+L 3.0 6.0 6.0 | T |
| INT145AA | 2021 Fall | Sketching and Visualization | | Development of basic freehand sketching and perspective drawing skills. Explores styles and techniques with emphasis on quick sketch and presentation type drawings as used by design professionals. | Prerequisites: None. Corequisites: INT145AB. | | Occ | L+L 1.5 3.0 3.0 | T |
| INT145AB | 2021 Fall | Rendering | | Development of basic digital sketching and perspective drawing skills. Explores styles and techniques with emphasis on quick sketch and presentation type drawings as used by design professionals. | Prerequisites: None. Corequisites: INT145AA. | | Occ | L+L 1.5 3.0 3.0 | T |
| INT150 | 2020 Fall | Color and Design | | Introduction to the theory and application of color as related to the elements and principles of design. Light and its effect on color. Emphasis on the development of presentation skills for the field of interior design. | Prerequisites: None. | | Occ | L+L 3.0 6.0 6.0 | T |
| INT156 | 2018 Fall | Furniture Upholstery I | | Techniques of general furniture upholstery, | Prerequisites: None. | INT156 may be repeated for a total of nine (9) credit hours. | Occ | L+L 3.0 5.0 5.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | operations of webbing, springing, stuffing, trimming, sewing and cushion making on approved student-selected projects. | | Students must provide the furniture piece. | | | |
| INT157 | 2018 Fall | Furniture Upholstery II | | Application and use of modern materials and tools, button tufting, channel construction, and special trim effects. | Prerequisites: A grade of C or better in INT156 or permission of Department or Division. | INT157 may be repeated for a total of (9) credit hours. Students must provide the furniture piece. | Occ | L+L 3.0 5.0 5.0 | T |
| INT158 | 2018 Fall | Furniture Upholstery III | | Advanced techniques in upholstering of furniture and other needle-trade items; time and money saving shortcuts in layout; fabric cutting and sewing. | Prerequisites: A grade of C or better in INT157 or permission of Department or Division. | INT158 may be repeated for a total of (9) credit hours. Students must provide the furniture piece. | Occ | L+L 3.0 5.0 5.0 | T |
| INT159 | 2018 Fall | Furniture Upholstery IV | | Advanced techniques of furniture upholstery for students interested in entering the upholstery trade; modern production techniques for sewing; stuffing; and finishing; job estimating; equipment selection and maintenance. | Prerequisites: A grade of C or better in INT158. | INT159 may be repeated for credit. Students must provide the furniture piece. | Occ | L+L 3.0 5.0 5.0 | T |
| INT160 | 2020 Fall | Fabrics for Interiors | | Study of the properties, design, and performance characteristics of interior fabrics. Psychological and cultural impact of textiles on the built environment. Role of the interior designer in working with textiles. Introduction to regulations and codes within the textile industry. | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| INT175 | 2021 Fall | Custom Design | | Custom design for interiors. Creative problem solving using design theory and process to the custom design of interiors. Emphasis on visualization of concepts through sketching, shop drawings, and basic specifications. | Prerequisites: A grade of C or better in [INT105 and (ARC141 or INT140) and INT122 and (INT145 or (INT145AA and INT145AB))] or permission of Instructor. | | Occ | L+L 3.0 6.0 6.0 | T |
| INT190 | 2020 Fall | Space Planning | | Study of creative, critical, analytical and strategic thinking as it relates to human | A grade of C or better required in all Prerequisites. | | Occ | L+L 3.0 6.0 6.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | behavior and the built environment. Emphasis on design theory, process, and application. Considerations for space utilization including anthropometrics and ergonomics. | Prerequisites: INT105. Prerequisites or Corequisites: ARC141 or INT140. | | | | |
| INT211 | 2021 Fall | Interior Materials and Specifications | | Properties, performance, maintenance, sustainability and general characteristics of interior finishes. Emphasis on selection, basic estimating, and writing specifications. | A grade of C or better required in all Prerequisites. Prerequisites: ARC141, or INT140, or permission of Instructor. Prerequisites or Corequisites: INT222 or [INT240 or (INT240AA and INT240AB)]. | | | L+L 3.0 6.0 6.0 | T |
| INT211AA | 2021 Fall | Interior Materials | | Properties, performance, maintenance, sustainability and general characteristics of interior finishes. | A grade of C or better required in all Prerequisites. Prerequisites: ARC141, or INT140, or permission of Instructor. Prerequisites or Corequisites: INT211AB and [INT222 or [INT240 or (INT240AA and INT240AB)]]. | Occ | | L+L 1.5 3.0 3.0 | T |
| INT211AB | 2021 Fall | Material Specifications | | Emphasis on selection, basic estimating, and writing specifications. | A grade of C or better required in all Prerequisites. Prerequisites: ARC141, or INT140, or permission of Instructor. Prerequisites or Corequisites: INT211AA and [INT222 or [INT240 or (INT240AA and INT240AB)]]. | Occ | | L+L 1.5 3.0 3.0 | T |
| INT215 | 2020 Fall | Professional Practices | | Marketing, business processes, and ethical issues in the interior design industry. Create materials for use in the profession including a portfolio, resume, and online presence. Includes hands-on | Prerequisites: A grade of C or better in INT190 or permission of Instructor. | Occ | Occ | L+L 3.0 6.0 6.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | experiences within the interior design field. | | | | | |
| INT222 | 2021 Fall | Residential Design | | Use of design process to create design solutions for residential spaces. Functional and aesthetic analysis of interior components. Includes kitchen and bath design; residential furnishings, fixtures, and equipment (FF&E); and environmental considerations. Refinement of presentation skills. | A grade of C or better required in all Prerequisites. Prerequisites: INT122, [INT145 or (INT145AA and INT145AB)], and INT190. Prerequisites or Corequisites: INT211 or (INT211AA and INT211AB). | | | L+L 3.0 6.0 6.0 | T |
| INT225 | 2019 Spring | History of Decorative Arts | | Survey of historical art, furniture and interiors with an emphasis on decorative arts from various cultures. | Prerequisites: A grade of C or better in INT115 and INT120. | Occ | Occ | LEC 3.0 3.0 3.0 | S |
| INT230 | 2021 Fall | Presentation Techniques | | Advanced freehand sketching and perspective drawing skills. Explores a variety of styles and techniques with emphasis on presentation type drawings and portfolio development techniques used by design professionals. | A grade of C or better required in all Prerequisites. Prerequisites: [INT145 or (INT145AA and INT145AB)] and (INT140 or ARC141). Prerequisites or Corequisites: INT122 or ARC142. | | Occ | L+L 3.0 6.0 6.0 | T |
| INT235 | 2011 Fall | Universal Design | | The study of innovative, strategic, problem-solving and crucial design principles as it pertains to the constructed surroundings and those using space. Prominence will be placed on Universal Design principles and how they relate to the design process and tasks to be performed within the environment. Emphasis on the creative execution through the application of universal design elements and principles. | Prerequisites: A grade of C or better in INT190 or permission of Instructor. | | Occ | LEC 3.0 3.0 3.0 | S |
| INT240 | 2021 Fall | Kitchen and Bath Design | | Exploration into the specific requirements associated with kitchen and bath design. Emphasis on the design | A grade of C or better required in all Prerequisites. Prerequisites: INT190 | | | L+L 3.0 6.0 6.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | process and computer-based tools for interior design. | and (ARC141 or INT140). Prerequisites or Corequisites: INT211 or (INT211AA and INT211AB). | | | | |
| INT240AA | 2021 Fall | Bath Design | | Exploration into the specific requirements associated with bath design. Emphasis on the design process and computer-based tools for interior design. | A grade of C or better required in all Prerequisites. Prerequisites: INT190 and (ARC141 or INT140). Prerequisites or Corequisites: [INT211 or (INT211AA and INT211AB)] and INT240AB. | | Occ | L+L 1.5 3.0 3.0 | T |
| INT240AB | 2021 Fall | Kitchen Design | | Exploration into the specific requirements associated with kitchen design. Emphasis on the design process and computer-based tools for interior design. | A grade of C or better required in all Prerequisites. Prerequisites: INT190 and (ARC141 or INT140). Prerequisites or Corequisites: [INT211 or (INT211AA and INT211AB)] and INT240AA. | | Occ | L+L 1.5 3.0 3.0 | T |
| INT241 | 2022 Spring | Advanced Kitchen and Bath Design | | Advanced approaches to kitchen and bath design using National Kitchen and Bath Association (NKBA) planning guidelines. Mastery in the development of a design concept, producing construction documents and 3-D model drawings, verbally and visually presenting the solution, and processing necessary documentation needed to follow a kitchen and bath project from inception to completion. | Prerequisites: A grade of C or better in INT240, or (INT240AA and INT240AB), or permission of Program Director. | Occ | | L+L 3.0 6.0 6.0 | T |
| INT245 | 2018 Fall | Color Rendering | | Development of color rendering techniques. Emphasis on producing two-dimensional and three-dimensional renderings utilizing various media | AAS Degree in Interior Design or permission of Department or Division. | | | L+L 3.0 6.0 6.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| INT250 | 2020 Fall | Basic Revit | ARC250 | Basic skills required to complete architectural drawings with Revit software; simplified overview of the software program and operations gained through completing typical plan, elevation, sectional, and 3D views, using generic walls and related components. | Prerequisites: None. ARC141, or previous AutoCAD/industry experience recommended. | ARC/INT250 may be repeated for a total of six (6) credit hours. | Occ | L+L 3.0 6.0 6.0 | T |
| INT251 | 2020 Fall | Sketchup I: Introduction to Sketchup | ARC265 | Provides students with introductory level instruction utilizing Sketchup rendering software for school and workplace applications. Addresses basic drawing/rendering commands, accessing external drawing files, and plotting through the creation of both three-dimensional schematic and rendered interior and exterior building views. | Prerequisites: None. Previous CAD experience recommended but not required. | ARC265/INT251 may be repeated for a total of six (6) credit hours. | Occ | L+L 3.0 6.0 6.0 | T |
| INT255 | 2021 Fall | Advanced Custom Design | | Covers advanced custom design for interior designers. Uses creative problem solving, design theories, and the design process to visualize custom design elements such as interior materials, furnishings, and details, through three-dimensional digital technology and construction processes. | Prerequisites: A grade of C or better in ARC140, ARC/INT250, ARC265/INT251, (INT145 or (INT145AA and INT145AB)), INT150, INT175, and INT190. | | Occ | L+L 3.0 6.0 6.0 | T |
| INT260 | 2020 Fall | Interior Codes and Regulations | | Study of interior building codes, regulations, and standards and their impact on the health, safety, and welfare of the public. Emphasis on occupancy classifications, means of egress, fire protection, finish/furniture standards and testing, and Americans with Disabilities Act Accessibility Guidelines (ADAAG). This course is an | A grade of C or better required in all Prerequisites. Prerequisites or Corequisites: INT140 or ARC141 or permission of Program Director. | | Occ | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | exploration of codes and regulations as it pertains to the application of interior design projects. | | | | | |
| INT265 | 2004 Fall | Building Systems | | Study of building systems and their impact on the health, safety and welfare of the public | AAS Degree in Interior Design or permission of Department or Division. | | | LEC 3.0 3.0 3.0 | S |
| INT266 | 2018 Fall | Current Topics in Interior Design | | Presentation of current topics related to the interior design industry. Emphasis on practical applications of historical, technical, business, social, or creative aspects of the field. Includes demonstration or in-depth description and may involve hands-on experience. | Prerequisites: Permission of Program Director. | INT266 may be repeated for credit.<br><br>Occ | Occ | L+L 1.0 2.0 2.0 | T |
| INT267 | 2021 Summer | Sketchup II: Advanced Rendering Techniques | ARC266 | Provides students with advanced instruction utilizing Sketchup, Google Earth, Sandbox and Podium rendering software for school and workplace applications. Creation of photo-realistic rendered three-dimensional interior and exterior building/site views. | Prerequisites: A grade of C or better in ARC265/INT251 or permission of Instructor. | | Occ | L+L 3.0 6.0 6.0 | T |
| INT268 | 2018 Fall | Lighting Design | | Study of interior lighting design and its impact on the health, safety and welfare of the public | AAS Degree in Interior Design or permission of Department or Division. | | | L+L 3.0 6.0 6.0 | T |
| INT270 | 2018 Fall | Commercial Design | | Creation of design solutions for commercial spaces. Focuses on issues affecting the health, safety and welfare of the public | AAS Degree in Interior Design or permission of Instructor. | | Occ | L+L 3.0 6.0 6.0 | T |
| INT271AA | 2004 Fall | Interior Design Internship | | Interior design work experience in the interiors industry. Required to work 80 hours. Supervised and evaluated by a faculty coordinator. | Prerequisites: Permission of Department or Division. | INT271AA may be repeated for a total of four (4) credits with Department Permission.<br><br>Occ | Occ | LAB 1.0 5.0 0.0 | C |
| INT271AB | 2004 Fall | Interior Design Internship | | Interior design work experience in the interiors industry. Required to work 160 | Prerequisites: Permission of Department or Division. | INT271AB may be repeated for a total of four (4) credits with department permission. | Occ | LAB 2.0 10.0 0.0 | C |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | hours. Supervised and evaluated by a faculty coordinator. | | | | | |
| INT271AC | 2004 Fall | Interior Design Internship | | Interior design work experience in the interiors industry. Required to work 240 hours. Supervised and evaluated by a faculty coordinator | Prerequisites: Permission of Department or Division. | | | LAB 3.0 15.0 0.0 | C |
| INT274AA | 1996 Spring | Interior Design Study Tour | | A tour of the interior design industry outside of the metropolitan Phoenix area. Includes a variety of experiences and activities to enhance knowledge about this multi-faceted career | Prerequisites: Permission of Department or Division. | | | LAB 1.0 5.0 1.0 | H |
| INT274AB | 1997 Fall | Interior Design Study Tour | | A tour of the interior design industry outside of the metropolitan Phoenix area. Includes a variety of experiences and activities to enhance knowledge about this multi-faceted career | Prerequisites: Permission of Department or Division. | Occ<br><br><br><br><br>Occ | | LAB 2.0 10.0 2.0 | F |
| INT274AC | 1997 Fall | Interior Design Study Tour | | A tour of the interior design industry outside of the metropolitan Phoenix area. Includes a variety of experiences and activities to enhance knowledge about this multi-faceted career | Prerequisites: Permission of Department or Division. | <br><br><br><br><br>Occ | | LAB 3.0 15.0 3.0 | F |
| INT282AA | 2013 Summer I | Service-Learning Experience in Interior Design | | Unpaid Service-Learning (SL) experience, completed with approved community partner. | Prerequisites: Permission of Instructor. | INT282AA may be repeated for a total of six (6) credit hours. Standard grading available according to procedures outlined in catalog. | Occ | LAB 1.0 1.0 0.0 | L |
| INT282AB | 2013 Summer I | Service-Learning Experience in Interior Design | | Unpaid Service-Learning (SL) experience, completed with approved community partner. | Prerequisites: Permission of Instructor. | INT282AB may be repeated for a total of six (6) credit hours. Standard grading available according to procedures outlined in catalog. | Occ | LAB 2.0 2.0 0.0 | L |
| INT282AC | 2013 Summer I | Service-Learning Experience in Interior Design | | Unpaid Service-Learning (SL) experience, completed with approved community partner. | Prerequisites: Permission of Instructor. | INT282AC may be repeated for a total of six (6) credit hours. Standard grading available according to procedures outlined in catalog. | Occ | LAB 3.0 3.0 0.0 | L |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| INT285 | 2021 Fall | Design Portfolio Development | | Design, produce, and present a professional portfolio appropriate to the field of Interior Design. Includes material selection and techniques, customer focus, contents and organization, presentation formats, and presentation boards to represent a variety of technical and aesthetic areas of design. | Prerequisites: A grade of C or better in INT240 or (INT240AA and INT240AB) or permission of Program Director. | | | LAB 1.0 1.5 1.5 | T |
| INT290 | 2018 Fall | Advanced Commercial Design | | Use of design process to create solutions for medium to large multi-story commercial interiors. Focuses on issues affecting the health, safety, and welfare of the public | Prerequisites: A grade of C or better in INT270. | Occ | Occ | L+L 3.0 6.0 6.0 | T |
| INT296WA | 2002 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor. | | Occ | LAB 1.0 5.0 0.0 | Z |
| INT296WB | 2002 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify | | Occ | LAB 2.0 10.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor. | | | | |
| INT296WC | 2002 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor. | | Occ | LAB 3.0 15.0 0.0 | Z |
| INT296WD | 2002 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor. | | Occ | LAB 4.0 20.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| INT298AA | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | Prerequisites: Permission of Program Director or Instructor. | | Occ | LAB 1.0 1.0 0.0 | Z |
| INT298AB | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | Prerequisites: Permission of Program Director or Instructor. | | Occ | LAB 2.0 2.0 0.0 | Z |
| INT298AC | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student | Prerequisites: Permission of Program Director or Instructor. | | Occ | LAB 3.0 3.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | development. COMMON COMPETENCY COURSE | | | | | |
| IPH101 | 2018 Fall | Introduction to Public Health | | Introduction to Public Health introduces students to the broad discipline of public health and how it influences community and individual health status. Includes sciences of public health, historical context of public health, role of various public health agencies, core functions, methods of measurement and evaluation, major public health issues in the United States, public policy, and factors that contribute to individual and community health. | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| IPH105 | 2023 Fall | Introduction to Community Health Work | | Basic concepts of patient navigation including disease prevention and community health, health insurance navigation, as well as accessing and analyzing health information. Training in assisting individuals with limited health literacy to access the maximum array of benefits from community services, clinical care, and health insurance. | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| IPH110 | 2018 Fall | Principles of Health and Behavior Change | | Introduction to the social and behavioral science theories used in public health. Provides an overview of health promotion principles and various theories and models developed to change health behavior and promote the health of individuals and societies. | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| IPH111 | 2018 Fall | Public Health Across the Lifespan | | Introduction to evidence-based research of trends and developments in health throughout the lifespan, | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | dealing with the prenatal period through advanced age. Training in the individual, social, and environmental factors to determine and address health status and health inequities across the lifespan and in public health interventions such as education, policy, and environmental changes. | | | | | |
| IPH112 | 2018 Fall | Community-Based Health Education in Health and Illness | | Provides the student with a basic understanding of the application of public health principles to community-based health education interventions. Includes an overview of public health, factors impacting health, health education theories and ethical considerations, the community needs assessment process, the program planning process, health communication, interventions at both the individual and population level. | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| IPH115 | 2018 Fall | Introduction to Health Administration and the U.S. Health System | | Introduction to the U.S. health care delivery system including knowledge and skills needed to navigate health care within a health care organization. | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| IPH201 | 2023 Fall | Introduction to Epidemiology | | Introduction to epidemiology and its role in public health. Training in the application of epidemiologic concepts and methods such as disease causation, terminology, and control principles relating to the spread, prevention, and control of communicable diseases and principles and practices of field investigation. | Prerequisites: A grade of C or better in (MAT206, PSY230 or PSY230WL). | | Occ | LEC 3.0 3.0 3.0 | S |
| IPH205 | 2021 Spring | Chronic Disease Management | | Focuses on the prevention and management of chronic disease as a critical priority for | Prerequisites: None. | IPH205 may be repeated for credit. | Occ | LEC 2.0 1.0 1.3 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | health systems around the world. Provides participants with an overview of prevention and management of chronic disease in community settings. Develops practical skills in analyzing and evaluating approaches to chronic disease in a variety of settings. Helps to identify capacities and opportunities for change. | | | | | |
| IPH220 | 2018 Fall | Introduction to Mobile Integrated Health Care | | Students learn components of patient-centered health care defined specifically for needs of the community. Training in determinants of health, health status indicators, cultural competence, health disparities, and bridging the gap of patient health care needs with social service resources and referrals. Additional topics include legal and ethical issues of mobile care, health care information technology, and insurance and reimbursement programs. | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| IPH275 | 2023 Fall | Community Health Work Practicum | | Provides students with hands-on experience in the role of the community health worker in the public health field, including guiding patients through various types of health care situations. 45 hours of workplace engagement per credit. | Prerequisites: Completion of six (6) credits of IPH courses with a grade of C or better, and permission of Department/Division Chair and/or the Program Director. | IPH275 may be repeated for a total of three (3) credit hours. | Occ | LAB 1.0 5.0 0.0 | C |
| IPH280 | 2021 Spring | Health Education Practicum | | Provides students with hands-on experience in the role of the health educator professional in the public health field, including assessing health education needs and developing and delivering health education programs. | Prerequisites: A grade of C or better in [COM270, FON241, (HCR230 or HES210), HTM150, IPH101, IPH110, IPH111, IPH112, and IPH201] or permission of Instructor. | | Occ | LAB 3.0 15.0 0.0 | C |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| IPH285 | 2020 Spring | Health Administration Practicum | | Provides students with hands-on experience in the role of the health administrator professional in the public health field, including applying managerial functions within a health care agency. | Prerequisites: A grade of C or better in [(HCR230 or HES210), HSM222, HTM150, IPH101, IPH115, and IPH201] or permission of Instructor. | | Occ | LAB 3.0 15.0 0.0 | C |
| IPH290 | 2021 Spring | Mobile Integrated Health Practicum | | Provides students with hands-on experience in the role of the mobile integrated health professional in the public health field, including using evidence-based health care interventions and guiding patients through health care payment systems. | Prerequisites: A grade of C or better in [COM270, FON241, (HCR230 or HES210), HTM150, IPH101, IPH201, and IPH220] or permission of Instructor. | | Occ | LAB 3.0 15.0 0.0 | C |
| IPP198 | 2018 Fall | Careers in Deaf Studies: Observation | | Provides experience through observation to the world of work of a professional interpreter. Observation of professional interpreters in a variety of work settings, including but not limited to professional principles, standards and ethics applied to everyday interpreting settings. | Prerequisites: A grade of C or better in IPP205 or permission of Department or Division. Completion of prerequisites within the last three years is required. | IPP198 may be repeated for a total of three (3) credits. | Occ | L+L 1.0 1.0 1.0 | T |
| IPP205 | 2020 Fall | Introduction to Interpreting | | Theories of role, function, responsibilities, and communication strategies of the American Sign Language (ASL)/English interpreter. Covers application and implementation of the National Registry of Interpreters for the Deaf (R.I.D.) and National Association of the Deaf (N.A.D.) Code of Professional Conduct. Additional topics addressed include interpreters functioning as advocates, moral systems vs. ethical systems, standard business practices, and perceptions of consumers. | Prerequisites: A grade of C or better in ASL201 or permission of Department or Division. Completion of prerequisites within the last three years is required. | IPP205 may be repeated for a total of nine (9) credit hours. | Occ | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| IPP207 | 2020 Fall | Ethics and Decision Making for ASL/English Interpreters | | Guided exploration of factors that impact decisions within interpreted contexts, including strategies, theory, and models for decision making. Application and implementation of the National Association of the Deaf (N.A.D.)-Registry of Interpreters for the Deaf (R.I.D.) Code of Professional Conduct. | A grade of C or better required in all Prerequisites. Prerequisites: ASL201 or permission of Department or Division. Prerequisites or Corequisites: IPP205 or permission of Program Director. Completion of prerequisites within the last three years is required. | IPP207 may be repeated for a total of eight (8) credit hours. | Occ | LEC 2.0 2.0 2.0 | S |
| IPP208 | 2020 Fall | Advanced American Sign Language Discourse | | Advanced study of terminology and discourse in various fields such as medical, judicial, technological, as well as financial and business transactions. Use of specialized terminology/concepts in dialogues, discussions, and narratives. Advanced use of classifiers, structuring of space, and grammatical features of American Sign Language (ASL) | Prerequisites: A grade of B or better in ASL203. Completion of prerequisites within the last three years is required. | Occ | | LEC 4.0 4.0 4.0 | S |
| IPP209 | 2020 Fall | Introduction to Educational Interpreting | | Principles, vocabulary, and techniques used specifically in educational (K-12) interpreting and transliterating. Introduces students to the scope of work and issues in primary, secondary, and vocational educational settings. Covers sign systems, technical signs, and appropriate methods of incorporating new signs. | Prerequisites: A grade of B or better in IPP205 or permission of Department or Division. ASL200 recommended. | IPP209 may be repeated for a total of eight (8) credit hours. Repeats 4.0 8.0 | Occ | LEC 2.0 2.0 2.0 | S |
| IPP210 | 2020 Fall | Research in Interpreting | | Overview of theory and methodological practice in Interpretation with particular attention to research methods. Emphasis on development of critical thinking skills through active participation in the research process. | Prerequisites: A grade of C or better in COM225, CRE101, ENG102, and IPP207. | IPP210 may be repeated for a total of nine (9) credit hours. Repeats 3.0 9.0 | Occ | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| IPP211 | 2018 Fall | Preparation for Interpreting | | Development of pre-interpreting skills, cognitive processing and analysis of interpreting process theories. Pre-interpreting skills include memory, cloze, identifying meaning, paraphrasing and summarization. Source language analysis and target language equivalents emphasized. Analysis of texts and contexts of monologues. | Prerequisites: Acceptance into the Interpreter Preparation Program or permission of Department or Division. | | | L+L 1.0 2.0 2.0 | T |
| IPP215 | 2018 Fall | ASL to English Consecutive Interpreting | | Sequential development of consecutive interpreting skills from American Sign Language (ASL) to English. Source language analysis and target language equivalents emphasized. Analysis of texts and contexts of naturally occurring monologues, guidance for discovering personal filters, practice of skills, techniques for self and peer evaluations, and application of theoretical models. | Prerequisites: (Acceptance into the Interpreter Preparation Program or permission of Department or Division) and a grade of B or better in IPP211. | Occ<br><br>Occ | | L+L 2.0 3.0 3.0 | T |
| IPP216 | 2022 Spring | ASL to English Simultaneous Interpreting | | Sequential development of simultaneous interpreting skills from American Sign Language (ASL) to English. Source language analysis and target language equivalents emphasized. Analysis of texts and contexts of naturally occurring monologues from different genres with increasing length and difficulty, practice of skills, techniques for self and peer evaluations, and application of theoretical models. | Prerequisites: A grade of B or better in IPP215 and permission of Program Director. | IPP216 must be completed with a grade of B or better to graduate from the Associate in Applied Science (AAS) and Certificate of Completion (CCL) in Interpreter Preparation programs. Students must acknowledge the Interpreter Preparation Exit Requirements prior to enrollment in IPP216 and should consult with an advisor for guidance. | Occ | L+L 3.0 4.0 4.0 | T |
| IPP218 | 2018 Fall | English to ASL Consecutive Interpreting | | Sequential development of consecutive interpreting skills from English to American Sign Language (ASL). Source | Prerequisites: (Acceptance into the Interpreter Preparation Program or permission | | | L+L 2.0 3.0 3.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | language analysis and target language equivalents emphasized. Analysis of texts and contexts of naturally occurring monologues, guidance for discovering personal filters, practice of skills, techniques for self and peer evaluations, and application of theoretical models. | of Department or Division) and a grade of B or better in IPP211. IPP215 suggested but not required. | | | | |
| IPP219 | 2022 Spring | English to ASL Simultaneous Interpreting | | Sequential development of simultaneous interpreting skills from English to American Sign Language (ASL). Source language analysis and target language equivalents emphasized. Analysis of texts and contexts of naturally occurring monologues from differing genres with increasing length and difficulty, practice of skills, techniques for self and peer evaluations, and application of theoretical models. | Prerequisites: A grade of B or better in IPP218, and permission of Program Director. Completion of prerequisites within the last three years is required. | IPP219 must be completed with a grade of B or better to graduate from the Associate in Applied Science (AAS) and Certificate of Completion (CCL) in Interpreter Preparation programs. Students must acknowledge the Interpreter Preparation Exit Requirements prior to enrollment in IPP219 and should consult with an advisor for guidance. | Occ | L+L 3.0 4.0 4.0 | T |
| IPP220 | 2020 Fall | Interactive Interpreting I | | Sequential development of interactive interpreting skills from English to American Sign Language (ASL) and from ASL to English. Perform source language analysis, apply cognitive processing techniques, and produce target language equivalents. Analysis of texts and contexts of naturally occurring dialogues, practice of skills, techniques for self and peer evaluations, and application of theoretical models. | Prerequisites: A grade of B or better in IPP211 or permission of Department or Division. Completion of prerequisites within the last three years is required. | Occ | | L+L 3.0 4.0 4.0 | T |
| IPP221 | 2022 Spring | Interactive Interpreting II | | Continued development of interactive interpreting skills from English to American Sign Language (ASL) and from ASL to English. Perform | Prerequisites: A grade of B or better in IPP220, and permission of Program Director. Completion of | IPP221 must be completed with a grade of B or better to graduate from the Associate in Applied Science (AAS) and Certificate of Completion (CCL) | Occ | L+L 3.0 4.0 4.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | source language analysis, apply cognitive processing techniques, and produce target language equivalents. Analysis of texts and contexts of naturally occurring dialogues, practice of skills, techniques for self and peer evaluations, and application of theoretical models. | prerequisites within the last three years is required. | in Interpreter Preparation programs. Students must acknowledge the Interpreter Preparation Exit Requirements prior to enrollment in IPP221 and should consult with an advisor for guidance. | | | |
| IPP229 | 2013 Spring | Interpreter Preparation Internship Seminar | | Classroom portion of the Interpreter Preparation Program internship. Emphasizes the blend of job-related activities including career exploration, employment application procedures, interpersonal skills, and on-the-job problems. | Prerequisites: Acceptance into the Interpreter Preparation Program and/or program director approval. Corequisites: IPP230AA or IPP230AB. | IPP229 may be repeated for a total of four (4) credit hours. | Occ | LEC 1.0 1.0 0.0 | C |
| IPP230AA | 2022 Spring | Interpreter Preparation Program Internship | | Laboratory portion of the Interpreter Preparation Program seminar. Eighty (80) clock hours of work required. Practical experience in settings such as educational, rehabilitation, community service centers, and agencies serving children, adolescents, and/or adults who are deaf or hard of hearing. Designed to provide students with the opportunity to synthesize practical and academic experiences gained during the in-classroom portion of the program. Site, supervision, and plan of activity mutually agreed upon by the student and instructor. Capstone experience for Associate in Applied Science (AAS) degree students. | Prerequisites: Acceptance into the Interpreter Preparation Program and Program Director approval. Corequisites: IPP229. | IPP230AA must be completed with a grade of B or better to graduate from the Associate in Applied Science (AAS) and Certificate of Completion (CCL) in Interpreter Preparation programs. IPP230AA may be repeated for a total of four (4) credit hours. Students must acknowledge the Interpreter Preparation Exit Requirements prior to enrollment in IPP230AA and should consult with an advisor for guidance. | Occ | LAB 1.0 5.0 0.0 | C |
| IPP230AB | 2022 Spring | Interpreter Preparation Program Internship | | Laboratory portion of the Interpreter Preparation Program Seminar. One | Prerequisites: Acceptance into the Interpreter Preparation | IPP230AB must be completed with a grade of B or better to graduate from the Associate in | Occ | LAB 2.0 10.0 0.0 | C |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | hundred sixty (160) clock hours of work required. Practical experience in settings such as educational, rehabilitation, community service centers, and agencies serving children, adolescents and/or adults who are deaf or hard of hearing. Designed to provide students with the opportunity to synthesize practical and academic experiences gained during the in-classroom portion of the program. Site, supervision, and plan of activity mutually agreed upon by the student and instructor. Capstone experience for Associate in Applied Science (AAS) degree students. | Program and Program Director approval. Corequisites: IPP229. | Applied Science (AAS) and Certificate of Completion (CCL) in Interpreter Preparation programs. IPP230AB may be repeated for a total of four (4) credit hours. Students must acknowledge the Interpreter Preparation Exit Requirements prior to enrollment in IPP230AB and should consult with an advisor for guidance. | | | |
| IPP242 | 2022 Spring | Educational Interpreting Skills | | Skill development and application of techniques used specifically in educational (K-12) interpreting and transliterating. Covers sign systems, technical signs, and methods of non-standard sign incorporation. | Prerequisites: A grade of B or better in (IPP209 and IPP211) and permission of Program Director. | IPP242 must be completed with a grade of B or better to graduate from the Associate in Applied Science (AAS) and Certificate of Completion (CCL) in Interpreter Preparation programs. IPP242 may be repeated for a total of four (4) credit hours. Students must acknowledge the Interpreter Preparation Exit Requirements prior to enrollment in IPP242 and should consult with an advisor for guidance. | Occ | L+L 1.0 2.0 2.0 | T |
| IPP250AA | 2018 Fall | Special Topics: Interpreter Preparation | | Explores a special topic related to interpreter preparation. Topics vary and include concepts relevant to those pursuing career in (American Sign Language) ASL/English Interpreting and Transliterating | Acceptance into the Interpreter Preparation Program or permission of Program Director. | IPP250AA may be repeated for credit | Occ | L+L 1.0 1.0 1.0 | T |
| IPP250AB | 2018 Fall | Special Topics: Interpreter Preparation | | Explores a special topic related to interpreter preparation. Topics vary and | Acceptance into the Interpreter Preparation | IPP250AB may be repeated for credit | Occ | L+L 2.0 2.0 2.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | include concepts relevant to those pursuing career in (American Sign Language) ASL/English Interpreting and Transliterating | Program or permission of Program Director. | | | | |
| IPP250AC | 2018 Fall | Special Topics: Interpreter Preparation | | Explores a special topic related to interpreter preparation. Topics vary and include concepts relevant to those pursuing career in (American Sign Language) ASL/English Interpreting and Transliterating | Acceptance into the Interpreter Preparation Program or permission of Program Director. | IPP250AC may be repeated for credit | Occ | L+L 3.0 3.0 3.0 | T |
| IPP250BA | 2018 Fall | Special Topics: Interpreter Preparation | | Explores a special topic related to interpreter preparation. Topics vary and include concepts relevant to those pursuing a career in American Sign Language (ASL)/English Interpreting and Transliterating. | Prerequisites: Acceptance into the Interpreter Preparation Program or permission of Program Director. | IPP250BA may be repeated for credit. | Occ | L+L 0.5 0.5 0.5 | T |
| IRW101 | 2013 Spring | Ironworking: Orientation | | Overview of the Ironworker labor history, green construction, work place issues and sexual harassment. Basic safety, measuring, tools and rigging. Types of ironwork and welding. | Prerequisites: Registered apprentice status or permission of the Apprenticeship Coordinator. | | Occ | LEC 3.0 3.0 3.0 | S |
| IRW102 | 2018 Fall | Safety and Health for Ironworking | | Safety, health, and accident prevention in the construction work environment related to ironworking. Proper erection, use, and dismantling of scaffolds. Selection, inspection, and use of fall protection including safe operation of forklifts and First Aid/Automated External Defibrillator/Cardiopulmonary Resuscitation (First Aid/AED/CPR). | Prerequisites: Registered Apprentice status with the Ironworkers Apprenticeship and Training Program or permission of Apprenticeship Coordinator. | | Occ | L+L 3.0 3.0 3.0 | T |
| IRW103 | 2022 Fall | Science, Rigging and Hoisting | | Science and mechanics related to the plumbing trade. Properties of water and matter, hydraulic and | Prerequisites: Registered apprentice status or permission of | | | LEC 6.0 6.0 6.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | pneumatic mechanics, metals and alloys. Corrosion. Rigging procedures including the use of fiber and wire rope for knots, hitches and slings. Use of hoisting equipment, and cranes. Hoisting with helicopters. Safe and proper loading and unloading of hoisting equipment. Intermediate fitting projects and mathematical applications. | the Apprenticeship Coordinator. | | | | |
| IRW104 | 2018 Fall | Ironworking: Blueprint Reading | | Basic elements of construction drawings including characteristics of various types of blueprints for ironworkers. Drawing interpretation, general abbreviations, acronyms, and basic symbols recognition and drawing classifications. | Prerequisites: Registered apprentice status or permission of the Apprenticeship Coordinator. | | Occ | L+L 1.5 1.5 1.5 | T |
| IRW105 | 2007 Summer I | Ironworking III: History | | Historical factors, events and activities leading to the founding of the International Ironworkers Labor Union. Circumstances and events between 1906-1912 related to labor unionization. Conspiracy trials involving unionization of Ironworkers, Carpenters, Machinists and the Building Trades. World War II and postwar struggles related to the labor movement. Factors of labor movement growth. The Occupational Health and Safety Administration (OSHA), nuclear power, foreign production of steel, and political influences relating to unionization in the 21st Century | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| IRW112 | 2018 Fall | Lead Hazard Training | | Background of lead and its uses including health effects caused by lead exposure. | Prerequisites: Registered apprentice status or permission of | | | L+L 3.0 3.0 3.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Occupational Safety and Health Administration (OSHA) regulations that apply to lead exposure, hazard communication and workers legal rights. Personal protective equipment (PPE) and work methods on steel structures. General site safety, work practices and confined space entry. | the Apprenticeship Coordinator. | | | | |
| IRW120 | 2009 Summer I | Structural Steel Erection I | | History and manufacture of iron and steel. Tools, equipment, materials, and trade procedures. Safety precautions. ;Raising gang members, erecting columns, beams, girders, trusses, nets, and railings. Fastening components. | Prerequisites: Registered apprentice status or permission of the Apprenticeship Coordinator. | | Occ | L+L 3.0 4.0 4.0 | A |
| IRW121 | 2009 Summer I | Structural Steel Erection II | | Tools, equipment and trade procedures. Advanced structural steel welding and burning. Mobile and tower cranes. Bolted, riveted and pinned connections. Bar joists, and bridging. Detailing stairways, ladders, channel bucks and grating. | Prerequisites: Registered apprentice status or permission of the Apprenticeship Coordinator. | | Occ | L+L 3.0 4.0 4.0 | A |
| IRW122 | 2018 Fall | Cranes | | Cause of fatalities. Load charts, wire rope, capacity, hook loads. Ground pressure, minimum and maximum clearances, list and trim. Floating cranes. | Prerequisites: Registered apprentice status or permission of the Apprenticeship Coordinator. | | Occ | L+L 3.0 3.0 3.0 | T |
| IRW130 | 2013 Spring | Reinforcing: Rebar | | Reinforced concrete; manufacture of reinforcing steel; tools, ties, and safety; types of reinforcing used in building construction; bridge construction; purpose and location of reinforcing steel in concrete; fabricating, unloading, handling, and storing, reinforcing steel, | Prerequisites: Registered apprentice status or permission of the Apprenticeship Coordinator. | | Occ | L+L 3.0 4.0 4.0 | A |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | reading engineering and placing drawings. | | | | | |
| IRW131 | 2013 Spring | Reinforcing: Post Tensioning Monostrand | | Principles, theory, and terminology of post-tensioning. Stressing equipment, hand tools, document control. Installation of monostrand post-tensioned floor systems, tendons. Troubleshooting, encapsulated systems, barrier cables, slabs-on-ground, and field placement drawings. | Prerequisites: Registered apprentice status or permission of the Apprenticeship Coordinator. | | Occ | L+L 3.0 4.0 4.0 | A |
| IRW142 | 2018 Fall | Conveyors and Industrial Maintenance | | History of conveyors, safety and tools. Overview and installation of overhead and floor conveyor systems. Bulk handling, conveyor drawings and maintenance procedures. | Prerequisites: Registered apprentice status or permission of the Apprenticeship Coordinator. | | Occ | L+L 3.0 3.0 3.0 | T |
| IRW150 | 2009 Summer I | Rigging I | | Rigging history, principles and blocks. Rigging safety. Fabric and wire rope, steal chain, sockets, slings, rigging hardware. Slicing techniques. Reeving systems and personnel requirements. | Apprentice status or permission of the Apprenticeship Coordinator. | | Occ | L+L 3.0 4.0 4.0 | A |
| IRW151 | 2010 Spring | Rigging II | | Safety rules and information for operation of rigging equipment; operation and assembly of cranes; examples of rigging jobs; use of helicopters in construction; miscellaneous rigging equipment; skids and rollers; access structures. | Prerequisites: A grade of C or better in IRW150 and apprentice status, or permission of the Apprenticeship Coordinator. | | Occ | LEC 3.0 3.0 3.0 | S |
| IRW160 | 2013 Spring | Architectural Ironworking I | | Curtain, window wall systems, skylights, storefronts, entranceways, cable walls, sealants, glazing, rails, doors, anchors and fasteners, stairs and ladders, catwalks, grating, fence and guardrails, detention systems, testing, installation and erection. | Prerequisites: Registered apprentice status or permission of the Apprenticeship Coordinator. | | Occ | L+L 3.0 4.0 4.0 | A |
| IRW161 | 2013 Spring | Architectural Ironworking II | | Introduction to layout, basic tools, mathematics, automatic | Prerequisites: A grade of C or better in IRW160 | | | L+L 3.0 4.0 4.0 | A |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | levels, lasers, theodolites and transits including total station. | and registered apprentice status or permission of the Apprenticeship Coordinator. | | | | |
| IRW175 | 2018 Fall | Precast Concrete, Metal Buildings, and Scaffolding | | Preconstruction planning including loading, method of transportation, timing, tolerances, safety, and quality control. Handling, erection and storage including hazards awareness. Use of cranes, hoists, and other specialized equipment. Pre-engineered metal building systems, site evaluation and preparation. Framing systems, insulation, walls, metal roofing, repairs and renovations. Basic components of scaffolding, loading, erecting and dismantling of scaffold systems. | Prerequisites: Registered apprentice status or permission of the Apprenticeship Coordinator. | | Occ | L+L 3.0 3.0 3.0 | T |
| IRW296WA | 2002 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor. | | Occ | LAB 1.0 5.0 0.0 | Z |
| IRW296WB | 2002 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average | | | LAB 2.0 10.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | objectives of the students. COMMON COMPETENCY COURSE | and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor. | | | | |
| IRW296WC | 2002 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor. | | Occ | LAB 3.0 15.0 0.0 | Z |
| IRW296WD | 2002 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to | Occ | | LAB 4.0 20.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | students major or career interest or with permission of Instructor. | | | | |
| IRW298AA | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. | Prerequisites: Permission of Program Director or Instructor. | Course Attribute(s): COMMON COMPETENCY COURSE | Occ | LAB 1.0 1.0 0.0 | Z |
| IRW298AB | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. | Prerequisites: Permission of Program Director or Instructor. | Course Attribute(s): COMMON COMPETENCY COURSE | Occ | LAB 2.0 2.0 0.0 | Z |
| IRW298AC | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be | Prerequisites: Permission of Program Director or Instructor. | Course Attribute(s): COMMON COMPETENCY COURSE | Occ | LAB 3.0 3.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | combined to maximize student development. | | | | | |
| ISP105 | 2020 Fall 1 | Computer Information Systems | | Overview of computer technology, concepts, terminology, and the role of computers in business and society. Discussion of social and ethical issues related to computers. Use of word processing, spreadsheet, database, and presentation software. Includes uses of application software and the internet for efficient and effective problem solving. Exploration of relevant emerging technologies. | Prerequisites: None. | | CLK | 52 | |
| ISP108B | 2019 Fall 1 | Keyboarding II | | This keyboarding skills course teaches students to use the computer keyboard to enter letters, numbers, and symbols. If students are already experienced typists, they will learn to type faster and more accurately (25 WPM @ 98% accuracy). | Prerequisites: None. | | CLK | 36 | |
| ISP116 | 2021 Fall | Computer Foundations | | Students learn computer concepts, how to navigate an operating system, control programs, manage files locally and in the Cloud, and search the internet. Students will establish email habits necessary to accomplish workplace success. In addition, students will learn all the necessary applications needed for student success. | Prerequisites: None. | | CLK | 24 | |
| ITA101 | 2013 Fall | Elementary Italian I | | Introduction to basic grammar, pronunciation, and vocabulary of Italian. Development of speaking, listening, reading, and writing skills. Study of the Italian culture | Prerequisites: None. | Course Attribute(s): Arizona Shared Unique Number SUN#: ITA 1101 General Education Designation: Global Awareness - [G] | Acad | LEC 4.0 4.0 4.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| ITA101AA | 2018 Fall | Elementary Italian I | | Basic grammar, pronunciation and vocabulary of the Italian language. Includes the study of Italian culture. Practice of listening, speaking, reading and writing skills | Prerequisites: None. | Course Attribute(s): General Education Designation: Global Awareness - [G] | Acad | L+L 4.0 5.0 5.0 | T |
| ITA102 | 2014 Fall | Elementary Italian II | | Continued development of speaking, listening, reading, and writing skills in Italian. Study of Italian culture. | Prerequisites: A grade of C or better in ITA101 or ITA101AA or permission of Department or Division. Completion of prerequisites within the last three years is required. | Course Attribute(s): Arizona Shared Unique Number SUN#: ITA 1102 General Education Designation: Global Awareness - [G] | Acad | LEC 4.0 4.0 4.0 | S |
| ITA102AA | 2018 Fall | Elementary Italian II | | Continued study of grammar and vocabulary along with the study of Italian culture. Emphasis on speaking, reading and writing skills. | Prerequisites: A grade of C or better in ITA101 or ITA101AA or permission of Department or Division. Completion of prerequisites within the last three years is required. | General Education Designation: Global Awareness - [G] | Acad | L+L 4.0 5.0 5.0 | T |
| ITA115 | 1994 Fall | Beginning Italian Conversation I | | Conversational Italian. Basic sentence structure, pronunciation and vocabulary necessary to develop speaking ability in Italian. Designed for students seeking speaking and listening abilities with little emphasis on grammar | Prerequisites: None. | | Acad | LEC 3.0 3.0 3.0 | S |
| ITA116 | 2014 Fall | Beginning Italian Conversation II | | Continued development of speaking and listening skills for effective communication in Italian. | Prerequisites: A grade of C or better in ITA115 or permission of Department or Division. Completion of prerequisites within the last three years is required. | | | LEC 3.0 3.0 3.0 | S |
| ITA201 | 2014 Fall | Intermediate Italian I | | Review of essential grammar of the Italian language and study of the Italian Culture. Continued practice and | Prerequisites: A grade of C or better in ITA102 or ITA102AA or permission of Department or Division. | Course Attribute(s): General Education Designation: Global Awareness - [G] Arizona Shared Unique Number SUN#: ITA 2201 | Acad | LEC 4.0 4.0 4.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | development of reading, writing, and speaking skills. | Completion of prerequisites within the last three years is required. | | | | |
| ITA202 | 2014 Fall | Intermediate Italian II | | Continued development of Italian language skills and continued study of the Italian culture. | Prerequisites: A grade of C or better in ITA201 or permission of Department or Division. Completion of prerequisites within the last three years is required. | Course Attribute(s): General Education Designation: Global Awareness - [G] Arizona Shared Unique Number SUN#: ITA 2202 | Acad | LEC 4.0 4.0 4.0 | S |
| ITA225 | 2014 Fall | Intermediate Italian Conversation I | | Continued development of skills in conversational Italian for effective communication. A review of grammar and development of vocabulary. Intensified study of Italian life and culture. | Prerequisites: A grade of C or better in ITA102 or ITA102AA or ITA116 or permission of Department or Division. Completion of prerequisites within the last three years is required. | | | LEC 3.0 3.0 3.0 | S |
| ITA226 | 2014 Fall | Intermediate Italian Conversation II | | Continued development of skills in conversational Italian for effective communication. A review of grammar including the extensive use of grammatical concepts. Continued development of vocabulary. Intensified study of Italian life and culture. | Prerequisites: A grade of C or better in ITA201 or ITA225 or permission of Department or Division. Completion of prerequisites within the last three years is required. | Acad | | LEC 3.0 3.0 3.0 | S |
| ITA265 | 2014 Fall | Advanced Italian I | | In-depth exploration of selected themes related to Italian culture. Involves reading selections from Italian literature, writing reports, and discussion in Italian. Emphasis on enhancing reading, writing and speaking skills. | Prerequisites: A grade of C or better in ITA202 or permission of Department or Division. Completion of prerequisites within the last three years is required. | Acad | | LEC 3.0 3.0 3.0 | S |
| ITA296WA | 2023 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to | Acad | | LAB 1.0 5.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor. | | | | |
| ITA296WB | 2023 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor. | | Acad | LAB 2.0 10.0 0.0 | Z |
| ITA296WC | 2023 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest | | Acad | LAB 3.0 15.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | or with permission of the Instructor. | | | | |
| ITA296WD | 2023 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor. | | Acad | LAB 4.0 20.0 0.0 | Z |
| ITA298AA | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | Prerequisites: Permission of Program Director or Instructor. | | Acad | LAB 1.0 1.0 0.0 | Z |
| ITA298AB | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. | Prerequisites: Permission of Program Director or Instructor. | | Acad | LAB 2.0 2.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | | | | | |
| ITA298AC | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | Prerequisites: Permission of Program Director or Instructor. | | Acad | LAB 3.0 3.0 0.0 | Z |
| ITD200 | 2023 Fall | The Physical Child: Birth to Age Three | | Examines the physical aspects of child growth and development in the first three years of life in the context of contemporary communities. Includes nutrition and feeding, health and safety, motor skills and exercise, neurological development, and identification of developmental delay. | Prerequisites: None. | | Acad | LEC 3.0 3.0 3.0 | S |
| ITD201 | 2023 Fall | Attachment and Relationships | | Explores the roots of human relationships in the attachment process. Considers how children become skilled at interaction with adults and peers in varied social contexts. Includes perspectives of Mahler, Erikson, and Magda Gerber. | Prerequisites: None. | | Acad | LEC 2.0 2.0 2.0 | S |
| ITD202 | 2023 Fall | Cognition and Communication | | Examines how thinking emerges in the sensorimotor period and how language is acquired. Considers the role | Prerequisites: None. | | Acad | LEC 2.0 2.0 2.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | of people and environments in facilitating cognition, communication and language. | | | | | |
| ITD204 | 2023 Fall | Supporting Family Development | | Practical and professional ways to foster communication with family members and relationships within families of infants and toddlers. Considers sensitivity to contemporary family differences and respect for confidentiality. | Prerequisites: None. | | Acad | LEC 1.0 1.0 1.0 | S |
| ITD210 | 2023 Fall | Early Attachments, Relationships, and Families: Birth to Age Three | | Explores the attachment process and relationships within families. Considers contemporary social contexts where children develop a concept of self, self-regulation, and interaction skills with children and adults. Examines social-emotional development, societal stresses, and supportive professional roles and responsibilities. | Prerequisites: None. | | Acad | LEC 3.0 3.0 3.0 | S |
| ITD220 | 2023 Fall | Cognition and Communication: Birth to Age Three | | Examines the cognitive development and language acquisition of infants and toddlers. Considers the role of people and daily environments on development. Also covers disabilities and developmental delays as well as major theories and research in the field. | Prerequisites: None. | | Acad | LEC 3.0 3.0 3.0 | S |
| ITH150 | 2009 Spring | Survey of Contemporary Italy | | An overview of modern Italian literary and artistic life from World War II to present; covers Italian cultural life and institutions, including political, social, and economic structures, and a comparison to American culture. | Prerequisites: None. | ITH150 is taught in English. | Acad | LEC 3.0 3.0 3.0 | S |
| ITS100 | 2019 Summer | Information Security Awareness | | Computer and network security topics, including network communication. Includes security policy, | Prerequisites: None. | | Occ | L+L 1.0 2.0 2.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | implementation of basic security measures, the importance of backups and the value of protecting intellectual property. Real-life examples and practical projects to reinforce the need for computer security. | | | | | |
| ITS110 | 2020 Fall | Information Security Fundamentals | | Fundamental concepts of information technology security. Topics include authentication methods, access control, cryptography, Public Key Infrastructure (PKI), network attack and defense methods, hardening of operating systems and network devices, securing remote access and wireless technologies and securing infrastructures and topologies. Emphasis on hands-on labs in both the Windows and Linux environments. Builds on thorough understanding of Transmission Control Protocol/Internet Protocol (TCP/IP) and security concepts and Microsoft (MS) Windows and Linux Administration. | Prerequisites: A grade of C or better in CIS126DL, or CIS126RH, or permission of Program Director. Corequisites: BPC270 or MST150++. | Occ | | L+L 3.0 4.0 4.0 | T |
| ITS120 | 2021 Spring | Legal, Ethical and Regulatory Issues | | Exploration of legal and ethical issues unique to information security. Analysis of professional ethical codes and their application to information security practitioners. Federal and state laws as they relate to information security. | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| ITS130 | 2018 Fall | Operating System Security | | In-depth examination of operating system security including Transmission Control Protocol/ Data Encryption Standard (DES), Triple Data Encryption | Prerequisites: A grade of C or better in ITS110 or permission of Instructor. | | | L+L 3.0 4.0 4.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Standard (3DES), Advanced Encryption Standard (AES), Pretty Good Privacy (PGP), and other encryption technologies (TCP/IP), Internet Protocol Security (IPSec) and Cisco Internetwork Operating System (IOS), Microsoft Windows, Linux and Mac OSX Security. Procedures to defend networks against attacks and recovery from network disasters. Web server security. Emphasis on hands-on labs in both the Windows and Linux environments. Builds on thorough understanding of Transmission Control Protocol/Internet Protocol (TCP/IP) and security concepts and MS Windows and Linux Administration | | | | | |
| ITS140 | 2018 Fall | Network Security | | Examination of techniques used to defend network security. Design and implementation of devices including firewalls and Intrusion Detection Systems (IDSs) and Virtual Private Networks (VPNs). Risk analysis and security policies methodologies. Emphasis on hands-on labs in both the Windows and Linux environments. Builds on thorough understanding of Transmission Control Protocol/Internet Protocol (TCP/IP) and security concepts and MS Windows and Linux Administration | Prerequisites: A grade of C or better in (ITS110 and ITS130) or permission of Instructor. | | Occ | L+L 3.0 4.0 4.0 | T |
| ITS240 | 2024 Fall | Ethical Hacking and Network Defense | | Preparation for the EC-Council Certified Ethical Hacking examination. In-depth | Prerequisites: A grade of C or better in ITS110, or CNT205, or CIS270, | | | L+L 3.0 4.0 4.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | exploration of how to effectively protect computer networks from risks ranging from malicious infiltration to cyber-warfare. Includes examination of ethical hacking, relevant tools and methodologies, and its importance to network security. Resources to identify new computer network vulnerabilities and counter security strategies will be discussed as well as an overview of relevant computer crime laws and penalties. | or permission of Instructor. | | | | |
| ITS291 | 2018 Fall | Computer Forensics Foundations | | Development of foundational computer forensic skills. Introduction to preserving, identifying, extracting, interpreting, and documenting computer data as part of a forensically sound analysis. Examination of the physical and logical structure of hard drives. Study of the logical structure of Windows-based file systems and common applications. Introduction to the logical structure of Unix/Linux-based file systems and common applications of commercial forensic tools | Prerequisites: A grade of C or better in BPC170 and ITS110 or permission of Instructor. | | Occ | L+L 4.0 5.0 5.0 | T |
| ITS292 | 2018 Fall | Advanced Computer Forensics | | Advanced computer forensics analysis techniques with commercial tools. Introduction to open-source forensic tools. Emphasis on data recovery from complex applications and media types. Study of the logical structure of Unix/Linux-based file systems. Advanced search techniques. Analysis of unallocated space, compound files, and NTFS artifacts | Prerequisites: A grade of C or better in ITS291 or permission of Instructor. | | Occ | L+L 4.0 5.0 5.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| ITS298AB | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | Prerequisites: Permission of Program Director or Instructor. | | Occ | LAB 2.0 2.0 0.0 | Z |
| JPH245 | 2023 Summer | Traditional and Modern Japanese Culture | | Survey of traditional and modern Japanese culture in context. Intellectual, spiritual, and artistic traditions of Japan will be examined with an eye on their popular-culture manifestations. The course, conducted in English, will consist of lectures, discussions, as well as oral and written reports. | Prerequisites: None. | Course Attribute(s): General Education Designation: Global Awareness - [G] General Education Designation: Humanities, Arts and Design - [HU] | Acad | LEC 3.0 3.0 3.0 | S |
| JPN100 | 2012 Summer II | Introduction to Japanese | | Brief introduction to the writing and speaking of Japanese. Emphasis on Japanese syllabic writing systems and foundational vocabulary. | Prerequisites: None. | JPN100 may be repeated for a total of four (4) credit hours. | Acad | LEC 1.0 1.0 1.0 | S |
| JPN101 | 2018 Fall | Elementary Japanese I | | Basic grammar, pronunciation, and vocabulary of Japanese. Study of Japanese culture. Development of speaking, listening, reading and writing skills | Prerequisites: None. | Course Attribute(s): General Education Designation: Global Awareness - [G] Arizona Shared Unique Number SUN#: JPN 1101 | Acad | L+L 5.0 6.0 6.0 | T |
| JPN102 | 2018 Fall | Elementary Japanese II | | Continued study of basic grammar, pronunciation and vocabulary of Japanese. Study of the Japanese culture. Intensive practice in oral communication and development of reading and writing skills. | Prerequisites: A grade of C or better in JPN101 or permission of Department or Division. Completion of prerequisites within the last three years is required. | Course Attribute(s): General Education Designation: Global Awareness - [G] Arizona Shared Unique Number SUN#: JPN 1102 | Acad | L+L 5.0 6.0 6.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| JPN115 | 1991 Fall | Beginning Japanese Conversation I | | Conversational Japanese. Basic sentence structure, pronunciation, and vocabulary necessary to develop speaking ability in Japanese. Designed for students seeking speaking and listening abilities, with little emphasis on grammar, reading, or writing | Prerequisites: None. | | Acad | LEC 3.0 3.0 3.0 | S |
| JPN116 | 2014 Fall | Beginning Japanese Conversation II | | Continuation of conversational Japanese for survival in everyday business and social situations. Expansion of vocabulary and sentence structure through aural/oral practice. Practice in reading and writing Kana. | Prerequisites: A grade of C or better in JPN115. Completion of prerequisites within the last three years is required. | | | LEC 3.0 3.0 3.0 | S |
| JPN201 | 2018 Fall | Intermediate Japanese I | | Expansion of sentence structures through oral/aural practice. Increased emphasis on reading and writing in Japanese and study of Japanese culture. | Prerequisites: A grade of C or better in JPN102 or permission of Department or Division. Completion of prerequisites within the last three years is required. | Course Attribute(s): General Education Designation: Global Awareness - [G] Arizona Shared Unique Number SUN#: JPN 2201<br>Acad | Acad | L+L 5.0 6.0 6.0 | T |
| JPN202 | 2018 Fall | Intermediate Japanese II | | Extensive review of Japanese grammar; development of vocabulary and idiomatic expressions through reading and writing. Continued practice of oral communication skills and study of Japanese culture. | Prerequisites: A grade of C or better in JPN201 or permission of Department or Division. Completion of prerequisites within the last three years is required. | Course Attribute(s): General Education Designation: Global Awareness - [G] Arizona Shared Unique Number SUN#: JPN 2202 | Acad | L+L 5.0 6.0 6.0 | T |
| JPN296WA | 2023 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: | | | LAB 1.0 5.0 0.0 | Z |



Acad

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor. | | | | |
| JPN296WB | 2023 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor. | Acad | | LAB 2.0 10.0 0.0 | Z |
| JPN296WC | 2023 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor. | Acad | | LAB 3.0 15.0 0.0 | Z |
| JPN296WD | 2023 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 | | | LAB 4.0 20.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | related to the career objectives of the students. | grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor. | | | | |
| JPN298AA | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment are made available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | Prerequisites: Permission of Program Director or Instructor. | | Acad | LAB 1.0 1.0 0.0 | Z |
| JPN298AB | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment are made available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | Prerequisites: Permission of Program Director or Instructor. | | Acad | LAB 2.0 2.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| JPN298AC | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment are made available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | Prerequisites: Permission of Program Director or Instructor. | | Acad | LAB 3.0 3.0 0.0 | Z |
| JRN101 | 2022 Fall | Grammar and Style for Journalists | | Focus on the fundamentals and application of grammar, punctuation, spelling, style and structure necessary in professional writing fields, including media writing. | Prerequisites: A grade of C or better in ENG091 or eligibility for ENG101 as indicated by appropriate English placement. | JRN101 may be repeated for a total of three (3) credit hours. | Occ | L+L 1.0 2.0 2.0 | T |
| JRN105 | 2022 Fall | Introduction to Journalism | | Survey of the field of journalism including what journalists do, their role in society, ethical practices, history, current trends, and the future of the profession. Overview of mass communication media, including newspapers, magazines, radio, television, and the Internet. | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| JRN125 | 2018 Fall | Photo Editing | | Basic techniques of photo composition and editing for media reproduction. Teach how to crop and size photographs. Use of photo editing and design software in paginating a newspaper page on the computer. The effect and impact of color vs. black and white photographs. Basic techniques of photo essay, photo page and photo story and/or multimedia news | Prerequisites: None. | | Occ | L+L 3.0 3.0 3.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | products and the impact of photos on typography. | | | | | |
| JRN133 | 2018 Summer | Development of Small Publications | | Design, plan and write newsletters, brochures, and advertisements. Desktop computer production and paste-up techniques. | Prerequisites: None. Computer experience and BPC138AA suggested but not required. | | | LEC 3.0 3.0 3.0 | S |
| JRN201 | 2020 Fall | News Writing | | Writing and producing news for the media. Associated Press (AP) editing style, writing skills, and organizational structure for news. | Prerequisites: A grade of C or better in ENG101 or ENG107. | | Occ | LEC 3.0 3.0 3.0 | S |
| JRN205 | 2022 Fall | Copyediting | | Focus on copy editing skills and techniques needed in professional communication industries. Specifically, the basics of grammar of style, interaction of word and image, the process of aggregation and curation, and an introduction to ethics and industry standards are covered. Writing for clarity, completeness, and conciseness is emphasized. | Prerequisites: A grade of C or better in ENG101 or permission of Instructor. JRN201 recommended for Journalism students. | Occ | | L+L 3.0 3.0 3.0 | T |
| JRN208 | 2022 Fall | Media Law | | Basic legal concepts for print, broadcast, online, and photojournalism including constitutional legal protections and the Freedom of Information Act (FOIA). Focus on access to courts, public records, public meetings, subpoenas, shield laws, prior restraint, libel, defamation, privacy, source confidentiality, intellectual property, obscenity, and Federal Communications Commission (FCC) regulations. | Prerequisites: None. | Occ | Occ | LEC 3.0 3.0 3.0 | S |
| JRN210 | 2022 Fall | News and Media Production | | Hands-on experience working in a college newsroom developing content as reporters, photographers, editors, and other roles on the | Prerequisites: A grade of C or better in JRN201 or [(ENG101 or ENG107) and | JRN210 may be repeated for a total of nine (9) credit hours. | Occ | L+L 3.0 5.0 5.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | student news team. Roles and responsibilities vary depending on student goals. | permission of Program Director or Instructor]. | | | | |
| JRN212 | 2022 Fall | Writing for Broadcasts | | Broadcast writing techniques emphasizing grammar, style and structure for various communication platforms. Focus on media reporting including writing scripts, interviewing skills, live broadcasting techniques, production overview and journalistic ethics. | Prerequisites: A grade of C or better in ENG101 and (JRN201 or permission of Instructor). | | Occ | L+L 3.0 5.0 5.0 | T |
| JRN213 | 2022 Fall | Writing for Online | | Focus on writing content applying fundamentals of style, grammar, and structure for media online. | Prerequisites: None. JRN201 recommended for Journalism students. | | Occ | LEC 3.0 3.0 3.0 | S |
| JRN216 | 2022 Fall | Current Topics in Media Practice | | Theory, training and experience in a specific area of journalism, with a focus on specialized types of journalism and cutting-edge and innovative practices. | Prerequisites: A grade of C or better in JRN201. JRN215 recommended but not required. | JRN216 may be repeated with different topics for a total of nine (9) credit hours. Speak to a Program Director for details. | Occ | LAB 1.0 1.0 0.0 | P |
| JRN225 | 2018 Fall | Photojournalism | | Reporting the news as a photojournalist, with emphasis on the development and creation of news photographs. Experience in shooting, editing and transmitting digital photos using professional photo editing and design software. | Prerequisites: None. | | Occ | L+L 3.0 3.0 3.0 | T |
| JRN226 | 2022 Fall | Introduction to Multimedia Journalism | | Overview to multimedia journalism including video and audio for news websites and TV news, as well as other multimedia platforms. Focus on conceptualizing story ideas, identifying and interviewing sources, and producing stories using multimedia. Introduction to current technologies for recording audio and video. Laws and ethics as applicable | Prerequisites: A grade of C or better in JRN201. | | Occ | L+L 3.0 3.0 3.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | to multimedia journalism will also be explored. | | | | | |
| JRN231 | 2018 Fall | Sports Writing | | Writing sports stories for the print media. Composing at the computer keyboard. Associated press editing style, writing skills, and organizational structure for sports news. | Prerequisites: A grade of C or better in JRN201 or permission of Instructor. | | Occ | L+L 3.0 3.0 3.0 | T |
| JRN232 | 2022 Fall | Community Reporting | | Focus on the knowledge and skills needed to conduct reporting that is industry ready. Cover a community beat and write and use multimedia skills to publish the stories. | Prerequisites: A grade of C or better in JRN201. | | Occ | LAB 3.0 3.0 0.0 | P |
| JRN234 | 2018 Fall | Feature Writing | | Emphasis on crafting stylized human interest stories for publications. Includes research, interviewing, writing techniques, editing and professional concerns. Includes best practices for writing features for traditional and digital media. | Prerequisites: A grade of C or better in ENG101 or ENG107, or permission of Instructor. | | Occ | L+L 3.0 3.0 3.0 | T |
| JRN236AA | 2022 Fall | Public Relations Internship | | Public relations work experience. | Prerequisites: Permission of Program Director. | JRN236AA may be repeated for a total of six (6) credit hours. | Occ | LAB 1.0 1.0 0.0 | P |
| JRN236AB | 2022 Fall | Public Relations Internship | | Public relations work experience. | Prerequisites: Permission of Program Director. | JRN236AB may be repeated for a total of six (6) credit hours. | Occ | LAB 2.0 2.0 0.0 | P |
| JRN236AC | 2022 Fall | Public Relations Internship | | Public relations work experience. | Prerequisites: Permission of Program Director. | JRN236AC may be repeated for a total of six (6) credit hours. | Occ | LAB 3.0 3.0 0.0 | P |
| JRN238 | 2018 Fall | Business Journalism | | Focus on reporting for and about business. Explores the nature and functions of business and the roles of business journalists. Examines the various media and situations within which business journalism operates. | Prerequisites: A grade of C or better in JRN201 and GBS151. | | | L+L 3.0 3.0 3.0 | T |
| JRN240AA | 2022 Fall | Journalism Internship | | Journalism work experience with a newspaper or other news organization. 80 hours | Prerequisites: A grade of C or better in JRN210. | | Occ | L+L 1.0 1.0 0.0 | P |



Occ

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | of designated work per credit. Maximum of 6 credits allowed | | | | | |
| JRN240AB | 2022 Fall | Journalism Internship | | Journalism work experience with a newspaper or other news organization. 80 hours of designated work per credit. Maximum of 6 credits allowed. | Prerequisites: A grade of C or better in JRN210. | | Occ | L+L 2.0 2.0 0.0 | P |
| JRN240AC | 2022 Fall | Journalism Internship | | Journalism work experience with a newspaper or other news organization. 80 hours of designated work per credit. Maximum of 6 credits allowed | Prerequisites: A grade of C or better in JRN210. | | Occ | L+L 3.0 3.0 0.0 | P |
| JRN290 | 2018 Fall | Publications Portfolio | | This course is organized around the development of a portfolio of published stories for submission to a jury of professional journalists, active and retired, that supports the district's occupational journalism certificate. Passing requires approval from two-thirds of the jury. | Prerequisites: None. | | Occ | LAB 1.0 1.0 1.0 | T |
| JRN296WA | 2002 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor. | | Occ | LAB 1.0 5.0 0.0 | Z |
| JRN296WB | 2002 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a | | | LAB 2.0 10.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | COMMON COMPETENCY COURSE | position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor. | | | | |
| JRN296WC | 2002 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor. | | Occ | LAB 3.0 15.0 0.0 | Z |
| JRN296WD | 2002 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or | Occ | | LAB 4.0 20.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | career interest or with permission of Instructor. | | | | |
| JRN298AA | 2023 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | Prerequisites: Permission of Program Director or Instructor. | | Occ | LAB 1.0 1.0 0.0 | Z |
| JRN298AB | 2023 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | Prerequisites: Permission of Program Director or Instructor. | | Occ | LAB 2.0 2.0 0.0 | Z |
| JRN298AC | 2023 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and | Prerequisites: Permission of Program Director or Instructor. | | Occ | LAB 3.0 3.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | | | | | |
| LAS101 | 2009 Fall | Introduction to Law | | Legal terminology and basic legal principles in the areas of tort, contract, and criminal law. Interrelationships among lawyers, the court system, and law enforcement and administrative agencies. Development of a case for trial, adjudication, and post-verdict procedures in the civil and criminal systems. Suggested but not required: ENG101 and CRE101, or exemption by score on the reading placement test (ASSET) | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| LAS107 | 2023 Fall | The Paralegal Profession | | Focus on the role, responsibilities, and ethical standards of a paralegal. Provides an overview of the legal system and the role of the paralegal in the legal system. Emphasis on professional development and job-search strategies. | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| LAS109 | 2023 Fall | Civil Procedures I | | Pretrial procedural issues in both Arizona and the federal system. Emphasis on Arizona Rules of Civil Procedure 1-37, 41, 55, 56, and 72-76. Coverage of applicable time limits, filing requirements, and proficiency in locating appropriate provisions in the Arizona Rules of Civil Procedure. Drafting of pleadings and motions and the application of procedural rules pertinent to the early stages of civil litigation. | Prerequisites: Acceptance into the Paralegal Studies program. A grade of C or better required in all Prerequisites. Prerequisites or Corequisites: LAS101 and LAS107 and (BPC110 or CIS105 or permission of Program Director). | | Occ | LEC 3.0 3.0 3.0 | S |
| LAS110 | 2015 Fall | Civil Procedures II | | Application of the procedural aspects of discovery, trial | Prerequisites: A grade of C or better in LAS109 | | | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | preparation, and post-trial work as part of a litigation team. Emphasis on practical concerns, such as interviewing of witnesses; preparation of discovery documents, exhibits, and transmittal memoranda; summarizing and indexing depositions; organization of files; preparation of trial notebooks; and participation in a mock trial. | and (BPC110 or CIS105 or permission of Program Director). | | | | |
| LAS115 | 2015 Fall | Criminal Trial Procedure | | Procedural aspects of the criminal trial process in Arizona state courts from preliminary proceedings through trial. Emphasis on application of the rules of criminal procedure and preparation of common trial documents by paralegals. Documents include the charging instrument, pre-trial motions, and jury instructions. | Prerequisites: A grade of C or better in LAS109 and (BPC110 or CIS105 or permission of Program Director). | | | LEC 3.0 3.0 3.0 | S |
| LAS131 | 2015 Fall | Legal Writing | | The use of proper grammar, punctuation, and spelling in the construction of sentences and the development of paragraphs. Use of case briefs to study effective writing and analytical techniques. Analysis and application of the writing process to produce well-written documents commonly used in the practice of law. | A grade of C or better required in all Prerequisites. Prerequisites or Corequisites: LAS109 and (BPC110 or CIS105 or permission of Program Director). | Occ | | LEC 3.0 3.0 3.0 | S |
| LAS203 | 2015 Fall | Ethics and Professional Practice | | Rules of professional responsibility and ethical requirements with an emphasis on their application to legal assistants. Sources of power to regulate the practice of law. Issues related to unauthorized practice of law. Examination of | Prerequisites: A grade of C or better in LAS131 and (BPC110 or CIS105 or permission of Program Director). | Occ | | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | professionalism in the legal profession | | | | | |
| LAS204 | 2015 Fall | Contract Law | | Examination of contracts and their regulation by the Uniform Commercial Code. Review and drafting of basic agreements. | A grade of C or better required in all Prerequisites. Prerequisites or Corequisites: LAS109 and (BPC110 or CIS105 or permission of Program Director). | | | LEC 3.0 3.0 3.0 | S |
| LAS208 | 2015 Fall | Probate | | Emphasis on various ways in which property can be held and passed on. Requirements for valid wills and trusts. Steps involved in estate administration and appropriate forms to be used. Includes drafting basic wills and simple trusts. | Prerequisites: A grade of C or better in LAS109 and (BPC110 or CIS105 or permission of Program Director). | Occ | | LEC 3.0 3.0 3.0 | S |
| LAS211 | 2015 Fall | Legal Research | | Use of print and electronic media to locate public documents, statutes, administrative regulations, and cases from county, state, and federal jurisdictions. Reading and interpreting research results. Shepardizing. Use of proper citation forms. | A grade of C or better required in all Prerequisites. Prerequisites or Corequisites: LAS109 and (BPC110 or CIS105 or permission of Program Director). | Occ | | LEC 3.0 3.0 3.0 | S |
| LAS212 | 2015 Fall | Tort Law | | Basic elements of negligence, strict liability, intentional torts; defenses; damages; insurance coverage. Evaluation of records and personal injury claims; review of insurance policies; settlement brochure; preparation of case intake memorandum | Prerequisites: A grade of C or better in LAS109 and (BPC110 or CIS105 or permission of Program Director). | Occ | | LEC 3.0 3.0 3.0 | S |
| LAS214 | 2015 Fall | Business Organizations | | Analysis and evaluation of business organizations with practical application of the law to analyze the utility, form, and function of Sole Proprietorships, General Partnerships, Limited Partnerships, Limited Liability | Prerequisites: A grade of C or better in LAS109 and (BPC110 or CIS105 or permission of Program Director). | Occ | | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Companies, and Corporations. Preparation of documents to create the most effective and feasible business organization under a given set of circumstances. | | | | | |
| LAS217 | 2015 Fall | Family Law | | Legal analysis of marriage, dissolution of marriage, parental rights and duties; pleading and practice. | Prerequisites: A grade of C or better in LAS109 and (BPC110 or CIS105 or permission of Program Director). | | | LEC 3.0 3.0 3.0 | S |
| LAS218 | 2021 Summer | Administrative Law | | Introduction to fundamental administrative law concepts including the delegation of powers, due process, citizen access and participation, rulemaking, adjudication, and judicial review. Emphasis on Arizona administrative procedures and the role of the paralegal in informal and prehearing advocacy and proceedings before a hearing officer. | Prerequisites: A grade of C or better in LAS109 and (BPC110 or permission of Department Chair or Program Director). | Occ | | LEC 3.0 3.0 3.0 | S |
| LAS220 | 2015 Fall | Paralegal Internship Seminar | | Coordinates on-the-job experiences with interpersonal relations, communications, time-management, and case-management skills. Provides opportunity to discuss problems encountered during internship. | Prerequisites: A grade of C or better in LAS203, LAS211, (LAS204 or LAS212), and (BPC110 or CIS105 or permission of Program Director). Corequisites: LAS221AB. | Occ<br>LAS220 may be repeated for a total of two (2) credit hours. | Occ | LEC 1.0 1.0 1.0 | S |
| LAS221AB | 2015 Fall | Paralegal Internship | | Field work through placement at a law firm or other law-related organization where student will gain experience working in a legal setting. Supervision and evaluation by on-the-job supervisor as well as college program director. | Prerequisites: Permission of Program Director. Corequisites: LAS220. | LAS221AB requires a minimum of 160 hours of field experience in a legal setting. | Occ | LAB 2.0 10.0 0.0 | C |
| LAS225 | 2015 Fall | Legal Research, Analysis, and Writing | | Integration and further development of legal research and writing skills with an emphasis on critical thinking, issue analysis, and motion | Prerequisites: A grade of C or better in LAS131 and LAS211 and (BPC110 or CIS105 or | | Occ | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | practice. Focus on integrating research, writing, and legal argument development. | permission of Program Director). | | | | |
| LAS229 | 2015 Fall | Litigation Technologies | | Use of presentation software; use of timekeeping, calendaring, and docketing software; use of litigation support software to organize case files; use of electronic trial presentation software in an electronic courtroom; ethical issues. | Prerequisites: A grade of C or better in LAS110 and (BPC110 or CIS105 or permission of Program Director). | | | LEC 3.0 3.0 3.0 | S |
| LAS261 | 2015 Fall | Bankruptcy | | Examination of bankruptcy laws and procedures and the role of paralegals in bankruptcy practice, including the commencement of a case, preparation of common forms, review of bankruptcy litigation including contested matters and adversary proceedings, and debtors' and creditors' rights and obligations. | Prerequisites: A grade of C or better in LAS109 and (BPC110 or CIS105 or permission of Program Director). | Occ | | LEC 3.0 3.0 3.0 | S |
| LAS265 | 2015 Fall | Regulatory Compliance | | Examination of, and requirements for, organizations maintaining compliance with regulatory schemes. Emphasis on federal regulations and the role of non-lawyer personnel, such as paralegals, in obtaining, organizing, analyzing, and presenting recommendations for acting on factual information and legal research related to regulatory requirements. | Prerequisites: A grade of C or better in LAS109 and (BPC110 or CIS105 or permission of Program Director). | Occ<br>Occ | | LEC 3.0 3.0 3.0 | S |
| LAS280 | 2023 Fall | Paralegal Studies Portfolio Capstone | | Demonstration of acquired skills and knowledge through review, revision, and supplementation of electronic portfolio containing evidence of program competencies; preparation, revision, and review of work product samples to facilitate the | A grade of C or better required in all Prerequisites. Prerequisites: LAS110, LAS203, LAS204, LAS214 and (BPC110 or CIS105 or permission of Program Director). Prerequisites or | | | LEC 1.0 1.0 0.0 | C |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | transition from student to entry-level paralegal. | Corequisites: (LAS225 and LAS229) or permission of Program Director. | | | | |
| LAS294AA | 2021 Summer | Special Topics in Civil Law | | Explores special topics related to the practice of civil law. Focuses on substantive and procedural aspects. | Prerequisites: Completion of Legal Assisting degree or certificate, or permission of Department or Division. | LAS294AA may be repeated for a total of two (2) credit hours. | Occ | LEC 1.0 1.0 1.0 | S |
| LAS294BA | 2021 Summer | Special Topics in Criminal Law | | Explores special topics related to the practice of criminal law. Focuses on substantive and procedural aspects. | Prerequisites: Completion of Legal Assisting degree or certificate, or permission of Department or Division. | LAS294BA may be repeated for a total of two (2) credit hours, | Occ | LEC 1.0 1.0 1.0 | S |
| LAS294CA | 2021 Summer | Special Topics in Administrative Law | | Explores special topics related to the practice of administrative law. Focuses on substantive and procedural aspects. | Prerequisites: Completion of Legal Assisting degree or certificate, or permission of Department or Division. | LAS294CA may be repeated for a total of two (2) credit hours | Occ | LEC 1.0 1.0 1.0 | S |
| LAS294DA | 2021 Summer | Special Topics in Current Legal Issues | | Explores special topics related to the practice of law. Focuses on substantive and procedural aspects. | Prerequisites: Completion of Legal Assisting degree or certificate or permission of Department or Division | LAS294DA may be repeated for a total of two (2) credit hours. | Occ | LEC 1.0 1.0 1.0 | S |
| LAS296WA | 2002 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor. | | Occ | LAB 1.0 5.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| LAS296WB | 2002 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor. | | Occ | LAB 2.0 10.0 0.0 | Z |
| LAS296WC | 2002 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor. | | Occ | LAB 3.0 15.0 0.0 | Z |
| LAS296WD | 2002 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify | | Occ | LAB 4.0 20.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor. | | | | |
| LAS298AA | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | Prerequisites: Permission of Program Director or Instructor. | | Occ | LAB 1.0 1.0 0.0 | Z |
| LAS298AB | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | Prerequisites: Permission of Program Director or Instructor. | | Occ | LAB 2.0 2.0 0.0 | Z |
| LAS298AC | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by | Prerequisites: Permission of Program Director or Instructor. | | Occ | LAB 3.0 3.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | | | | | |
| LAT101 | 2011 Fall | Elementary Latin I | | Introduction to the basic grammar and vocabulary of the Latin language. Practice reading and translating Latin into English | Prerequisites: None. | Course Attribute(s): Arizona Shared Unique Number SUN#: LAT 1101 | Acad | LEC 4.0 4.0 4.0 | S |
| LAT102 | 2014 Fall | Elementary Latin II | | Comparative study of English and Latin grammar. Emphasis on analytical thinking, memorization, and familiarization with new terminology. Translation from English and from original works in Latin. | Prerequisites: A grade of C or better in LAT101 or permission of Department or Division. Completion of prerequisites within the last three years is required. | Course Attribute(s): Arizona Shared Unique Number SUN#: LAT 1102 | Acad | LEC 4.0 4.0 4.0 | S |
| LAT201 | 2014 Fall | Intermediate Latin I | | Introduction to translation technics using selections from various authors; emphasis on use of primary texts. | Prerequisites: A grade of C or better in LAT102. Completion of prerequisites within the last three years is required. | Course Attribute(s): General Education Designation: Humanities, Arts and Design - [HU] | Acad | LEC 4.0 4.0 4.0 | S |
| LAT202 | 2014 Fall | Intermediate Latin II | | Refinement of translation technics using selections from Virgil's Aeneid; emphasis on use of language and meter. | Prerequisites: A grade of C or better in LAT201. Completion of prerequisites within the last three years is required. | Course Attribute(s): General Education Designation: Humanities, Arts and Design - [HU] | Acad | LEC 4.0 4.0 4.0 | S |
| LAT296WA | 2023 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of | | | LAB 1.0 5.0 0.0 | Z |



Acad

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor. | | | | |
| LAT296WB | 2023 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor. | | Acad | LAB 2.0 10.0 0.0 | Z |
| LAT296WC | 2023 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor. | | Acad | LAB 3.0 15.0 0.0 | Z |
| LAT296WD | 2023 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to | Prerequisites: Completion of at least twelve (12) college | | | LAB 4.0 20.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | accomplish an outcome related to the career objectives of the students. | credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor. | | | | |
| LAT298AA | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | Prerequisites: Permission of Program Director or Instructor. | | Acad | LAB 1.0 1.0 0.0 | Z |
| LAT298AB | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | Prerequisites: Permission of Program Director or Instructor. | | Acad | LAB 2.0 2.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| LAT298AC | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | Prerequisites: Permission of Program Director or Instructor. | | Acad | LAB 3.0 3.0 0.0 | Z |
| LBA155 | 2023 Fall | Laboratory Assisting: Principles and Procedures | | Overview of laboratory services, laboratory professionals, and the role of a laboratory assistant. Principles and procedures for pre-analytical processing of laboratory specimens. Performance of specimen processing, pre-analytical processes, and point-of-care testing. Application of quality assurance, quality control, quality management principles, infection control, and laboratory safety. Use of laboratory supplies, instrumentation, and information systems. Performing clerical and computer functions using medico-legal guidelines for documentation. | Prerequisites: (Acceptance into the Laboratory Assisting program), (a grade of C or better in PLB109 and PLB111), and permission of Program Director. | Occ | | L+L 5.0 5.0 5.0 | T |
| LBA158 | 2019 Fall | Laboratory Assisting Practicum | | Practicum in laboratory assisting based in healthcare facilities or reference laboratories. Performance of clinical skills for pre-analytical processing of laboratory specimens, initial testing phases, and point-of-care testing using laboratory | Prerequisites: A grade of C or better in LBA155 and permission of Program Director. | | Occ | LAB 2.0 9.0 0.0 | C |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | instrumentation, information systems, and supplies. Application of quality assurance, quality control, infection control, and laboratory safety. Performance of clerical and computer functions using medico-legal guidelines for documentation. Use of professional and ethical conduct in all interpersonal communications. | | | | | |
| LDR100 | 2023 Fall | The Leader in You | | Introductory exploration and application of leadership theories, concepts and practices for college students that want to make a difference in a changing world. Provides the concept of the relational leadership model and how it differs from traditional leadership theories. Focus on self-development of leadership potential through completion of personal and leadership assessments, values exploration and leadership skill applications. | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| LDR101 | 2001 Fall | Emerging Leaders I | | Concepts and application of leadership skills and service learning to promote social change and value clarification. Development of organizational leadership skills through experiential learning | Prerequisites: None. | | Occ | LEC 2.0 2.0 2.0 | S |
| LDR102 | 2001 Fall | Emerging Leaders II | | Focus on implementing collaborative practices and organizational leadership skills to promote positive social change. Apply value-based leadership behavior in diverse settings | Prerequisites: A grade of C or better in LDR101 or permission of Instructor. | | Occ | LEC 2.0 2.0 2.0 | S |
| LDR201 | 2001 Fall | Leadership Facilitation I | | Designed to provide skills and practice for group facilitation of leadership activities in | Prerequisites: A grade of C or better in | | | LEC 2.0 2.0 2.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | diverse settings Focus on development of organizational skills to promote effective group functioning | LDR102 or permission of Instructor. | | | | |
| LET112 | 2015 Spring | Introduction to Juvenile Corrections | | Introduction to the Arizona Department of Juvenile Corrections. Includes the philosophy, mission, vision, and goals of the department in addition to juvenile corrections statistics and jurisdiction issues. Also covers programs available to youth in the department as well as agency information policy and access. Standards of conduct also covered. | Prerequisites: None. | | Occ | LEC 2.0 2.0 2.0 | S |
| LET113 | 2018 Fall | Juvenile Corrections Procedures | | Practical application of juvenile corrections procedures. Includes workplace safety, first aid, and cardiopulmonary resuscitation (CPR) procedures in addition to principles of staff safety in the facility. Also covers physical intervention techniques, preparation and transportation of youth, and radio and telephone communications. Report writing also covered. | Prerequisites: None. | | Occ | LAB 2.0 6.0 6.0 | T |
| LET114 | 2018 Fall | Juvenile Corrections Officer Skills | | Officer skills for the juvenile corrections system. Includes cultural awareness, data security policy and procedures, and defensive driving skills. Also covers tools for and goals of behavior management and effective communication styles and skills. Contraband legalities and procedures also covered. | Prerequisites: None. | | Occ | L+L 3.0 4.0 4.0 | T |
| LET115 | 2015 Spring | Crisis Intervention in Juvenile Corrections | | Overview of juvenile corrections officer skills for crisis intervention. Includes phases of the stress model | Prerequisites: None. | | Occ | LEC 2.0 2.0 2.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | and situation assessment in addition to verbal and non-verbal crisis communication. Also covers behavioral support and conflict resolution goals and limitations. Life Space Interview (LSI) steps included. | | | | | |
| LET116 | 2015 Spring | Adolescent Treatment Issues | | Adolescent treatment issues in the juvenile corrections system. Includes stages of adolescent development and development theories. Covers mental health issues and illness, disorders, and interventions in addition to types of treatments, medications, and behavioral issues. | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| LET117 | 2015 Spring | Juvenile Corrections Supervision | | Supervisory skills for the juvenile corrections system. Includes classification principles and systems, stages of change, and case management responsibilities. Also covers indicators of and reporting requirements for child abuse, Incident Command System (ICS) responsibilities, and education team roles and responsibilities. Positive Behavioral Interventions and Support (PBIS) also covered. | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| LET118 | 2015 Spring | Legal Issues in Juvenile Corrections | | Overview of legal issues in the Arizona Department of Juvenile Corrections (ADJC) system. Includes justice system treatment philosophies and theories as wells as adjudication, conviction, and victim's rights. Also covers civil and criminal liability, causes of civil litigation, and civil rights concerns. Search and seizure, due process, and | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | physical intervention principles also covered. | | | | | |
| LET120 | 2018 Fall | Juvenile Corrections Housing Unit Operations | | Housing unit operations for juvenile corrections officers. Includes policies for housing unit operations, supervisory procedures, and documentation in addition to behavior management goals and techniques. Also covers levels of support, group management skills, and activation procedures for the Incident Command System (ICS). | Prerequisites: None. | | Occ | L+L 2.0 3.0 3.0 | T |
| LET130 | 2019 Summer | Detention Officer Training | | Introduction to the detention field. Includes officer responsibilities with regards to discipline, conduct and dealing with inmates in the legal system. Examination of detention services, management principles, philosophy and goals also covered. Constitutional Amendments, law enforcement ethics and corruption included. | Prerequisites: Permission of Department or Division. | | | LEC 2.0 2.0 2.0 | S |
| LET132 | 2019 Summer | Introduction to Correctional Law | | Introduction to the legal and constitutional rights of inmates. Pre-trial, sentencing, and probation processes covered. Court cases with regards to enforcement personnel and custodial agencies discussed. Also covers inmate discipline and types of force. | Prerequisites: A grade of C or better in LET130. | Occ | Occ | LEC 3.0 3.0 3.0 | S |
| LET134 | 2006 Summer I | Special Needs Issues and Communication | | Management skills for dealing with inmates with special needs. Issues related to female inmates, drug addictions, and mental disorders covered. Techniques for dealing with | Prerequisites: A grade of C or better in LET132. | | Occ | LEC 2.0 2.0 2.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | suicidal inmates and gang members included | | | | | |
| LET135 | 2019 Summer | Problem Solving and Crisis Management | | Further examination of management techniques and tools within the detention facilities. Crisis intervention and de-escalation techniques covered. Also includes medical screening, inmate grievances, inmate disciplinary reports, and the reclassification system. | Prerequisites: A grade of C or better in LET134. | | Occ | LEC 2.0 2.0 2.0 | S |
| LET136 | 2019 Summer | Detention Security Procedures | | Security procedures within the detention facilities. Officer responsibilities with regards to contraband, facility security, and key/tool control. Procedures for conducting searches, security walks, headcounts, and the proper use of restraints. Dealing with hostage and emergency situations covered. | Prerequisites: A grade of C or better in LET135 or permission of Department or Division. | | | LEC 2.0 2.0 2.0 | S |
| LET138 | 2019 Summer | Detention Officer Emergency Procedures | | Techniques for managing emergency situations in the detention facility including fires and medical emergencies. Skills for administrating first aid and cardiopulmonary resuscitation (CPR). Procedures for using control devices. Includes Occupational Safety and Health Administration (OSHA) safety equipment and methods as well as Sudden In-Custody Death (SICD) procedures. | Prerequisites: A grade of C or better in LET136. | Occ | Occ | LAB 1.0 3.0 3.0 | T |
| LET139 | 2019 Summer | Detention Facility Training | | Daily procedures for managing the detention facility. Includes procedures for processing inmate needs and requests, completing departmental reports and crime scene management. | Prerequisites: A grade of C or better in LET138. | | Occ | L+L 2.0 4.0 4.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Operational procedures and liability issues also covered. | | | | | |
| LET141 | 2018 Fall | Detention Defensive Tactics | | Defensive tactics training for Detention Officers. Covers defensive body mechanics, various defensive techniques, handcuffing, and search techniques as well as pressure points and the carotid control technique. Ground defense and survival skills, survival psychology, and physical fitness also included. | Prerequisites: Permission of Department or Division. | | | L+L 4.0 5.0 5.0 | T |
| LET144 | 2018 Fall | Detention Officer Field Training | | Field training procedures for the detention facility officer. Includes officer communication, safety, and security as well as procedures for handling emergency situations in the detention facility. Also covers Order of Protection, Injunction against Harassment, and visitation responsibilities. | Prerequisites: Permission of Department or Division. | Occ | | L+L 2.0 3.0 3.0 | T |
| LET146 | 1999 Spring | Officer Survival | | Overview of skills and techniques for officer survival. Tactical thinking, critical incident stress, entry techniques and emergency plans as well as basic high risk traffic stops and search warrants covered. Limitations of the mind and body in a crisis also covered | Prerequisites: None. | Occ | Occ | LEC 1.0 1.0 1.0 | S |
| LET148 | 2018 Fall | Detention Officer Field Training Lab | | Application of field training procedures for the detention facility officer. Includes communication and documentation requirements as well as officer safety in the tower and on the floor. Also covers procedures for handling emergency situations and management of special | Prerequisites: Permission of Department or Division. | | | LAB 3.0 9.0 9.0 | T |



Occ

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | populations within the detention facility. | | | | | |
| LET150 | 2020 Fall | Firearms I | | Overview of firearms usage. Covers firearms safety and nomenclature, basic firearms usage techniques, and firearms care and cleaning. | Prerequisites: Permission of Department or Division. | | | L+L 3.0 3.0 3.0 | T |
| LET151 | 2020 Fall | Firearms II | | Practical application of firearms usage. Covers loading and unloading ammunition, firearm safety, daytime and nighttime firing techniques and shooting positions. Emphasis on qualification courses. | A grade of C or better required in all Prerequisites. Prerequisites or Corequisites: LET150. | | Occ | L+L 2.0 2.0 2.0 | T |
| LET152 | 2020 Spring | Tactical Weapons | | Practical application of tactical weapons procedures. Emphasis on handgun and rifle techniques in addition to impact weapon targets, use of force, and taser operation. Includes techniques for engaging suspects, advanced simunitions, and high threat vehicle engagement. | Prerequisites: Permission of Department or Division. | Occ | | L+L 4.0 6.0 6.0 | T |
| LET155 | 1998 Spring | General Instructor Certification | | Designed to aid persons responsible for training in the workplace. Emphasis on motivating the adult learner, systematic training, planning, and evaluating performance | Prerequisites: None. | Occ | Occ | LEC 3.0 3.0 3.0 | S |
| LET160 | 2000 Spring | Correctional System Ethics and Professionalism | | Overview of policies and guidelines with respect to professionalism and ethics in the correctional system. Includes workforce diversity, staff-inmate relations, and harassment issues. Also covers the definition of ethics and the basis for ethical decision making | Prerequisites: Permission of Department or Division. | | | LEC 1.0 1.0 1.0 | S |
| LET162 | 2019 Fall | Introduction to Inmate Management | | Effective inmate management techniques. Includes components of effective management and use of officer discretion. Criminal | Prerequisites: Permission of Department or Division. | Occ | | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | justice system also covered. Procedures for dealing with inmate discipline and classification, grievances, and use of force determinations. | | | | | |
| LET164 | 2000 Spring | Correctional Information Systems | | Overview of policies and guidelines for professional and effective distribution of information within the correctional system, including regulations governing two-way radio operation and use of a field notebook | Prerequisites: Permission of Department or Division. | | | LEC 1.0 1.0 1.0 | S |
| LET166 | 2019 Fall | Correction Officers Safety and Weapons Training | | Basic shooting principles of the weapons used by correctional officers. Includes nomenclature, handling, loading and firing of the service handgun, shotgun, and 37mm gas gun. Lawful use of chemical agents including identification, coding, delivery and decontamination procedures. | Prerequisites: Permission of Department or Division. | Occ | | L+L 2.0 4.0 4.0 | T |
| LET167 | 2014 Spring | Correctional Sergeant Leadership | | Examination of leadership skills, duties and responsibilities, and procedures for sergeants in correctional facilities. Includes leading and creating an environment that motivates employees, effective communication, professionalism, and staffing/roster management procedures. Also covers procedures for the Incident Command System (ICS), Designated Area Response Team (DART), and performance evaluations for correctional employees. | Prerequisites: Permission of Department or Division. | Occ<br>Occ | | LEC 2.0 2.0 2.0 | S |
| LET168 | 2019 Fall | Inmate Security Procedures I | | Procedures for dealing with inmate security. Includes progressive behavior control and protective custody. | Prerequisites: Permission of Department or Division. | | | LEC 2.0 2.0 2.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Inmate count, personal property inventory, mail handling procedures, and cell extraction procedures also covered. | | | | | |
| LET169 | 2018 Fall | Inmate Security Procedures II | | Security procedures for handling inmates. Covers searches, contraband, monitoring of inmates and perimeter checks. Transportation of inmates, use of restraints and driving skills including preventable collisions included. | Prerequisites: A grade of C or better in LET168 or Corequisites: LET168. | | Occ | L+L 3.0 4.0 4.0 | T |
| LET170 | 2019 Fall | Security, Custody and Control Procedures | | Procedures for maintaining security and control within a correctional institution. Includes custody levels, roles of staff, and essential components with regards to span-of-control. Also covers procedures for dealing with crime scene management, fires, and emergency situations. | Prerequisites: Permission of Department or Division. | | | LEC 2.0 2.0 2.0 | S |
| LET172 | 1997 Summer I | Conflict and Crisis Management | | Conflict and crisis management techniques for correctional institutions. Effecting positive, non-forceful resolutions to potentially violent situations. Emphasis on officer and inmate safety | Prerequisites: Permission of Department or Division. | Occ | | LEC 2.0 2.0 2.0 | S |
| LET173 | 2020 Fall | Introduction to Leadership in Public Safety | | Introduction to leadership in the field of public safety. Covers stages of adult human development, generational differences, and characteristics of effective leaders. Also includes characteristics of leaders, including values, ethics, attitudes, behavior, and response techniques in addition to identification of personal strengths and | Prerequisites: None. | Occ | Occ | LEC 2.0 2.0 2.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | determination of a personal leadership style. | | | | | |
| LET174 | 2020 Fall | Organizational Culture and Leadership | | Examination of organizational structure and its application to the field of public safety. Covers characteristics and principles of effective organizations, systems and process management, and phases of process building in addition to characteristics of a process enterprise. Also includes levels of leadership and characteristics, ethical considerations, restrictions, and best behaviors of each. | A grade of C or better required in all Prerequisites. Prerequisites or Corequisites: LET173. | | Occ | LEC 3.0 3.0 3.0 | S |
| LET175 | 2022 Fall | Public Safety Leadership Capstone | | Completion and professional presentation of a capstone project such as a formal staff study or leadership portfolio in the field of public safety, including steps for problem identification, research, and analyzing and reporting of information. | Prerequisites: A grade of C or better in LET174. | | Occ | LAB 1.0 3.0 3.0 | T |
| LET176 | 2019 Fall | Medical and Mental Health | | Responsibilities of the correctional system staff with regards to medical and mental health of inmates. Includes basic first aid, basic life support, and supervision and care for mentally ill and impaired inmates. Also includes drug and substance abuse and communicable disease control. | Prerequisites: Permission of Department or Division. | | | LEC 2.0 2.0 2.0 | S |
| LET178 | 2018 Fall | Physical Fitness and Self Defense Training | | Physical and self defense training for correctional officers. Emphasis on aerobic power, muscular strength, endurance, and flexibility. Includes necessary and legal self defense along with techniques for protection of self and others in physical confrontations. Also includes | Prerequisites: Permission of Department or Division. | Occ | | L+L 3.0 5.0 5.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | training guidelines, safety issues and the benefits of good physical fitness. | | | | | |
| LET179 | 2020 Spring | Highway Patrol Procedures | | Overview of operational and response procedures for highway patrol operations. Covers pursuits, roadblocks, emergency response, and high risk stops in addition to incident command systems. Also includes overview of racially biased policing, sex trafficking indicators, and marijuana field testing. | Prerequisites: Permission of Department or Division. | | | LEC 3.0 3.0 3.0 | S |
| LET180 | 2019 Summer | Introduction to Computer Aided Dispatch | | Introduction to computer aided dispatch. Covers techniques and procedures for emergency broadcast, including dispatch protocol, types of requests, and use of the dispatch panel. Also includes an overview of banking and vehicle security systems, the Incident Command System (ICS), and procedures for officer involved emergencies. | Prerequisites: None. | Occ | Occ | LEC 2.0 2.0 2.0 | S |
| LET181 | 2019 Summer | Emergency Communications Personnel | | Duties and responsibilities of personnel within the emergency communications industry. Includes information operator and tactical dispatcher responsibilities for handling various types of calls including priority one, hot calls and pursuits. Also covers split configuration communication. | Prerequisites: None. | | Occ | LEC 2.0 2.0 2.0 | S |
| LET182 | 2019 Summer | Emergency Communications Procedures | | Practical application of emergency communications procedures. Includes dispatch functions, protocol and techniques, Incident Command system (ICS) implementation, and information officer and dispatcher responsibilities. In | Prerequisites: None. | | Occ | L+L 3.0 9.0 9.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | addition to basic dispatch procedures, covers queries, pursuits, priority one calls, hot calls, all calls, and high-risk situations and procedures. Radio dispatch card procedures also covered. | | | | | |
| LET183 | 2020 Spring | Transportation Law | | Transportation law provisions. Covers Arizona Revised Statute (ARS) Title 28, drug transportation, and contraband as well as civil and criminal traffic laws. Traffic offenses, violation name, and classification included. | Prerequisites: Permission of Department or Division. | | | LEC 1.0 1.0 1.0 | S |
| LET184 | 2019 Summer | Introduction to 911 Call Basics | | Overview of basics for processing 911 calls. Covers communications terminology, abbreviations and codes as well as various police systems. Also includes location systems including numbering, point of origin, freeway structure, various maps and city codes. | Prerequisites: None. | Occ | Occ | LEC 3.0 3.0 3.0 | S |
| LET185 | 2019 Summer | 911 Policies and Procedures | | Policies and procedures for completing 911 calls. Includes the National Incident Management System (NIMS), Incident Command System (ICS) and the use of an incident action plan. Also covers the purpose and use of radio codes, the online crime reporting website, and call signs. Alarm call types, prioritization, reporting, and cancellation procedures also covered. | Prerequisites: None. | | Occ | L+L 3.0 5.0 5.0 | T |
| LET186 | 2019 Summer | Specialized 911 Call Procedures | | Procedures for managing specific emergency situations. Includes goals and procedures for handling barricaded suspect calls, active shooter situations and officer involved emergencies. | Prerequisites: None. | | Occ | L+L 3.0 5.0 5.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Also covers Critical Incident Stress Management (CISM) resources and the impact of emotional labor. | | | | | |
| LET195 | 2018 Fall | Proficiency Skills for Fire Investigators | | Proficiency skills required of the fire investigator. Includes physical conditioning and wellness as well as defensive tactics and vehicle operations. | Prerequisites: Permission of Department or Division. | | | L+L 2.0 4.0 4.0 | T |
| LET196 | 2010 Spring | Patrol Procedures for Fire Investigators | | Patrol and off-duty responsibilities procedures for fire investigators. Includes domestic violence authority as well as priorities for handling crimes in progress. Also covers communication procedures and restrictions. | Prerequisites: Permission of Department or Division. | | | LEC 1.0 1.0 1.0 | S |
| LET197 | 2018 Fall | Firearms for Fire Investigators | | Firearms training for the fire investigator. Includes firearm safety and procedures, including daytime and nighttime firing techniques and shooting positions. Practical application in a field environment. | Prerequisites: Permission of Department or Division. | Occ<br><br>Occ | | L+L 2.0 4.0 4.0 | T |
| LET198 | 2010 Spring | Criminal Investigations for Fire Investigators | | Overview of procedures for conducting special criminal investigations. Responsibilities of the fire investigator with regard to death investigations, and assault and burglary cases. Also covers gangs and gang activity in addition to narcotics and dangerous drug investigations. | Prerequisites: Permission of Department or Division. | Occ | | LEC 1.0 1.0 1.0 | S |
| LET201 | 2016 Spring | Physical Fitness Instructor Certification | | Covers skills necessary to instruct and conduct physical fitness tests using the Cooper Institute for Aerobics Research standards and the Peace Officer Physical Aptitude Test (POPAT) standards. Also covers basics of human anatomy, strength training and aerobic conditioning as well as | Prerequisites: Permission of Department or Division. | Occ | | LEC 3.0 3.0 3.0 | S |



Occ

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | nutrition and prevention of injuries. | | | | | |
| LET225 | 2020 Fall | Criminal Investigations Certification | | Police Detective Training. Emphasis on investigations, search and seizure, legal aspects of interview and interrogation, report writing, case management, and field problem scenarios. | Prerequisites: Must be a certified police officer or have permission of Department or Division. | | | LEC 6.0 6.0 6.0 | S |
| LET225AA | 2020 Fall | Criminal Investigations Certification I | | Overview of information, strategies, techniques, and resources available to detectives investigating property crimes, sex crimes, forged documents, and death investigations. | Prerequisites: Must be a certified police officer or have permission of Department or Division. | Occ | | LEC 1.0 1.0 1.0 | S |
| LET225AB | 2020 Fall | Criminal Investigations Certification II | | Review of laws regarding search and seizure. Updated information regarding new laws as they apply to search and seizure. | Prerequisites: Must be a certified police officer or have permission of Department or Division. | | | LEC 1.0 1.0 1.0 | S |
| LET225AC | 2020 Fall | Criminal Investigations Certification III | | The legal framework for admissible confessions and other information gathered through interviews and interrogations. Prepares law enforcement personnel for obtaining confessions and other incriminating information from suspects used in court. | Prerequisites: Must be a certified police officer or have permission of Department or Division. | Occ<br>Occ | | LEC 1.0 1.0 1.0 | S |
| LET225AD | 2020 Fall | Criminal Investigations Certification IV | | Emphases on necessity for good reports in criminal investigations. Characteristics of pre-report preparation, preparing the body of the report, and assembling the case report. Process of handling submission of a case report, processing turndowns, and furthers. | Prerequisites: Must be a certified police officer or have permission of Department or Division. | Occ | | LEC 1.0 1.0 1.0 | S |
| LET225AE | 2020 Fall | Criminal Investigations Certification V | | Overview of the criminal investigators role in preparing case documents for submittal to the attorney and to prepare for trial. | Prerequisites: Must be a certified police officer or have permission of Department or Division. | Occ | | LEC 0.5 0.5 0.5 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| LET225AF | 2020 Fall | Criminal Investigations Certification VI | | Various types of electronic evidence and the procedures required to be submitted to the court for prosecution. | Prerequisites: Must be a certified police officer or have permission of Department or Division. | | | LEC 0.5 0.5 0.5 | S |
| LET225AG | 2020 Fall | Criminal Investigations Certification VII | | This course is a summative culmination of the investigator courses. Students will assume the investigator's role in a crime scene scenario, securing a crime scene, processing evidence, preparing documentation, and submit a case for trial. | Prerequisites: A grade of C or better in LET225AA, LET225AB, LET225AC, LET225AD, LET225AE, and LET225AF. | | Occ | LEC 1.0 1.0 1.0 | S |
| LET226 | 1999 Summer I | Arrest and Defense Tactics Instructor Training | | Techniques for instructing students in arrest and defense tactics. Includes approaching suspects, use of equipment, and officer responsibilities as well as handcuffing and transporting prisoners. Use of force and liability issues, pressure points and impact weapons also covered. Close Quarter Crisis Management and psychological factors emphasized | Prerequisites: Permission of Department or Division. | Occ | | LEC 6.0 6.0 6.0 | S |
| LET229 | 2003 Summer II | High Risk Situations/Instructor Training | | Techniques for instructing students in high risk/known risk situations. Includes pre-stop procedures, primary and back-up officer responsibilities, suspect removal, and vehicle positioning | Prerequisites: None. | Occ | Occ | LEC 2.0 2.0 2.0 | S |
| LET243 | 2021 Fall | Search Warrant Preparation | | Overview of statutes, constitutional requirements, and case law covering searches, seizures, and detentions relative to the search warrant process. Includes procedures and tactical considerations for obtaining and serving search warrants. Also covers review and documentation of probable cause related to | Prerequisites: Must be Law Enforcement personnel or have permission of Instructor. | | Occ | L+L 6.0 6.0 6.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | property, persons, and drug-related crimes within a search warrant affidavit as well as search warrant draft procedures. | | | | | |
| LET250 | 2019 Fall | DUI Detection | | Overview of alcohol-related DUI enforcement and general deterrence, DUI detection and description techniques, legal statutes, Standardized Field Sobriety Test (SFST's) procedures, DUI arrest process, report writing, courtroom testimony techniques and drug detention techniques. | Prerequisites: Permission of Department or Division. | | | LEC 2.0 2.0 2.0 | S |
| LET254 | 2018 Summer | Criminal Investigations Detective I | | Advanced training designed to prepare law enforcement officers for transition into investigator positions. Includes Criminal Investigations Division (CID) goals and expectations, the scouting mission techniques and resources, operational plan components and development, and a review of professional writing skills for report writing, in addition to procedures for surveillance. Also covers procedures for preparing and serving search warrants, handling digital evidence, and working human trafficking and smuggling cases. | Prerequisites: Permission of Department or Division. | Occ<br><br>Occ | | LEC 3.0 3.0 3.0 | S |
| LET255 | 2018 Summer | Criminal Investigations Detective II | | Further advanced training designed to prepare law enforcement officers for transition into investigator positions. Includes Department of Public Safety (DPS) Criminal Investigations Division (CID) policies and procedures, the intelligence mission and cycle, crime | Prerequisites: A grade of C or better in LET254. | | | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | scene management and processing, in addition to open source intelligence applications and resources. Also covers procedures for handling informants, interview and interrogation, and courtroom/trial preparation. | | | | | |
| LET256 | 2020 Fall | Law Enforcement Firearm Instructor | AJS256 | A train the trainer course for police firearm instructors. Covers instructional techniques for the pistol, revolver, and shotgun. | Prerequisites: AzPost (Peace Officer Standard and Training) Certified Police General Instructor or permission of Department or Division. | AJS/LET256 may be repeated for Credit. | Occ | LEC 5.0 5.0 5.0 | S |
| LET256AA | 2020 Fall | Law Enforcement Patrol Rifle Instructor | AJS256AA | Techniques on proper manipulation and marksmanship skills needed by a patrol officer/deputy in the use of the patrol rifle, and techniques of teaching those skills to other officers/deputies. | Prerequisites: AzPOST (Peace Officer Standard and Training) certified law enforcement firearms instructor or permission of Instructor. | AJS/LET256AA may be repeated for Credit. | Occ | LEC 3.0 3.0 3.0 | S |
| LET260 | 2020 Spring | Traffic Accident Investigation | | Overview of accident investigation techniques and reports. Physical evidence on the roadway and from the vehicle, human factors and reaction times, measurement and calculations emphasized. Also includes felony collision investigation. | Prerequisites: Permission of Department or Division. | | | LEC 3.0 3.0 3.0 | S |
| LET262 | 2020 Spring | Active Shooter Procedures | | Procedures for response and mitigation of active shooter/active homicide events. Includes policies for decision making, use of appropriate force, tactics for responding to active shooter events, basic structure clearing techniques, and Tactical Combat Casualty Care (TCCC) as well as opportunities for reality-based training. | Prerequisites: Permission of Department or Division. | Occ | | L+L 2.0 3.0 3.0 | T |

Occ

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| LET279AA | 2018 Fall | Field Training: Phase I | | Introduction to the Field Training Program. Overview of standards for officers in training. Also includes vehicle inspection, traffic stops, writing citations, and field interview cards. Use of the radio and Mobil Data Terminal (MDT) covered. Integration of radio and MDT use while driving patrol emphasized. | Prerequisites: Permission of Department or Division. | | | L+L 4.0 4.0 4.0 | T |
| LET279AB | 2018 Fall | Field Training: Phase II | | Field training communication skills. Procedures for interview and interrogation skills, as well as strategies for conflict resolution. Covers standards for effective report writing in addition to requirements for callback, arrest and field reports. Also includes procedures for completing bookings. Standards for officers in training also evaluated. | Prerequisites: Permission of Department or Division. | Occ | | L+L 4.0 6.0 6.0 | T |
| LET279AC | 2018 Fall | Field Training: Phase III | | Continuation of field training. Procedures in arrest of suspects driving under the influence (DUI) and for investigating accidents emphasized. Standards for officers in training also evaluated. | Prerequisites: Permission of Department or Division. | Occ | | L+L 5.0 5.0 5.0 | T |
| LET279AD | 2018 Fall | Field Training: Phase IV | | Culmination of field training. Self initiated field activity, 'On-view' cases emphasized. Integration of recognizing activity that is suspicious in nature or illegal and appropriate action. Standards for officers in training also evaluated. | Prerequisites: Permission of Department or Division. | Occ | | L+L 4.0 6.0 6.0 | T |
| MAS101 | 2023 Fall | Introduction to Medical Assisting | | Introduction to professional skills required in the field of medical assisting. Development of professional behaviors and expectations; in | Prerequisites: None. | Students must meet all the competencies to continue the Medical Assisting program.<br><br>Occ | Occ | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | addition to but not limited to communication and mathematical calculations used. | | | | | |
| MAS102 | 2022 Spring | Fundamentals of Administrative Medical Assisting | | Explores fundamental administrative procedures in ambulatory healthcare settings, such as appointment scheduling, telephone etiquette, and patient rights. Emphasis on a basic understanding of medical law and ethics and Health Insurance Portability and Accountability Act (HIPAA) regulations. Provides a basic overview of insurance, coding, billing, and electronic health records (EHR) as they relate to medical assisting. | Prerequisites: A grade of C or better in MAS101. | Occ | | LEC 6.0 6.0 6.0 | S |
| MAS103 | 2023 Fall | Basic Anatomy, Physiology, and Medical Terminology | | Provides an overview of medical terminology and the word parts used in building and analyzing terms used in healthcare, including abbreviations and symbols. A body-systems approach is used for terms relating to anatomy, physiology, and pathophysiology. | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| MAS104 | 2023 Fall | Medical Administrative Assisting Practicum | | Students will apply the medical administrative concepts learned in previous program courses. | Prerequisites: A grade of C or better in HCC145 or MAS103. | All health and safety documents must remain current and in good standing, especially TB screening and CPR BLS provider, throughout the MAS104 Practicum. | Occ | LAB 4.0 4.0 4.0 | T |
| MAS200 | 2023 Fall | Medical Conversions and Calculations for Medical Assisting | | Introduction to mathematical calculations specific to the clinical practice of medical assistants. Application of skills include conversions of measurements in the metric system, temperature conversions, military-standard time conversions, and | Prerequisites: A grade of C or better in MAS104. | MAS104 is graded using the Pass/Fail (P/Z) grading. Students must meet all the competencies to continue the Medical Assisting program. MAS200 may be repeated for a total of four (4) credit hours. | Occ | LEC 2.0 2.0 2.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | medication dosage equivalents and calculations. | | | | | |
| MAS201 | 2023 Fall | Fundamentals of Clinical Medical Assisting | | Provides a foundation for clinical lab skills related to medical assisting. This hands-on course will explore surgical procedures, vital signs, sterilization, electrocardiogram (EKG), and emergency situations in the ambulatory setting. Includes a review of the steps involved in basic first aid and healthcare provider cardiopulmonary resuscitation (CPR). | Prerequisites: A grade of C or better in MAS200 and acceptance into the Clinical Medical Assisting or Medical Assisting program. | | Occ | L+L 6.0 7.5 7.5 | T |
| MAS202 | 2021 Fall | Laboratory Testing in Ambulatory Healthcare Settings | | Introduction to basic Point of Care Testing (POCT), specimen collection, and handling. Theory and practice of basic phlebotomy and application of fundamental phlebotomy procedures and techniques in a clinical ambulatory healthcare setting. | Prerequisites: A grade of C or better in MAS201. | Students must pass all lab competencies and the clinical final exam with a minimum of 85% to pass the course. (MAERB Policy 215) | Occ | L+L 6.0 7.5 7.5 | T |
| MAS203 | 2021 Fall | Medical Assisting Pharmacology | | Explores principles of basic pharmacology and medication administration. Focus on responsibility and appropriate medication protocols as they relate to medical assisting. | Prerequisites: A grade of C or better in MAS201 and MAS202. | Students must pass all dosage calculation tests and the clinical final exam with a 100% to pass the course. | Occ | L+L 6.0 7.5 7.5 | T |
| MAS204 | 2021 Spring | Clinical Medical Assisting Practicum | | Application of clinical medical assisting concepts while interacting with patients at a clinical practicum site. | Prerequisites: A grade of C or better in MAS203. | All health and safety documents must remain current and in good standing, especially TB screening and CPR BLS provider, throughout the MAS204 Practicum. | Occ | LAB 4.0 9.0 9.0 | T |
| MAS205 | 2021 Spring | Medical Assisting Program Review | | Prepares students to apply for the clinical credentialing examination and for entry into the medical assisting industry. | Prerequisites: A grade of C or better in MAS203. | | | LEC 2.0 2.0 2.0 | S |
| MAT051 | 2019 Fall | Number Sense I | | Primary emphasis on conceptual understanding of whole numbers, integers and mathematical operations. Use systems of measure and Pythagorean Theorem. Focus | Prerequisites: None. | | Acad | LEC 1.0 1.0 1.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | on mathematical language, connections, patterns and reasoning. | | | | | |
| MAT052 | 2019 Fall | Number Sense II | | Primary emphasis on conceptual understanding of decimals and fractions, and decimal and fraction addition and subtraction. Solving problems involving decimals and fractions. Focus on mathematical language, connections, patterns and reasoning. | Prerequisites: A grade of C or better in MAT051, OR an appropriate district placement. | | Acad | LEC 1.0 1.0 1.0 | S |
| MAT053 | 2019 Fall | Multiplicative and Proportional Reasoning | | Primary emphasis on conceptual understanding of decimals and fractions, and decimal and fraction multiplication and division. Solving problems involving decimals, fractions, and percentages. Focus on additive and multiplicative reasoning including proportionality and similarity. | Prerequisites: A grade of C or better in each of the following courses: (MAT051 and MAT052), OR an appropriate district placement. | | | LEC 1.0 1.0 1.0 | S |
| MAT055 | 2019 Fall | Algebraic Structures | | Emphasis on meanings related to variable, equality, inequality, equivalence. The use of additive and multiplicative reasoning in solving linear equations and inequalities in one variable. Validation of solution(s) through a reasonable mathematical defense. Transfer and apply knowledge through a process of sense making and reasonableness in mathematical problems and practical application situations. | Prerequisites: A grade of C or better in each of the following courses: (MAT051 and MAT052 and MAT053), OR a grade of C or better for (MAT081 or MAT082 or MAT083 or MAT085 or MAT089), OR an appropriate district placement. | Acad | Acad | LEC 1.0 1.0 1.0 | S |
| MAT056 | 2019 Fall | Functions I | | Recognize patterns and organize data to represent situations where output is related to input. Understand the concept of function and be able to represent functions in multiple ways, including | Prerequisites: A grade of C or better in each of the following courses: (MAT051 and MAT052 and MAT053 and MAT055), OR a grade of C or better in | | | LEC 1.0 1.0 1.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | tables, algebraic rules, graphs and contextual situations, and make connections among these representations. | (MAT055 and (MAT081 or MAT082 or MAT083 or MAT085 or MAT089)), OR an appropriate district placement. | | | | |
| MAT057 | 2019 Fall | Functions II | | Read, represent, and interpret linear function relationships numerically, analytically, graphically and verbally and connect the different representations. Model and solve real world problems involving constant rate of change. | Prerequisites: A grade of C or better in each of the following courses: (MAT051 and MAT052 and MAT053 and MAT055 and MAT056), OR a grade of C or better in (MAT055 and MAT056 and (MAT081 or MAT082 or MAT083 or MAT085 or MAT089)), OR an appropriate district placement. | Acad | | LEC 1.0 1.0 1.0 | S |
| MAT081 | 2019 Fall | Basic Arithmetic | | Primary emphasis on conceptual understanding of and solving problems involving whole numbers, integers, mathematical operations, decimals, decimal operations, fractions, percentages, angles and geometric figures. Use of systems of measure, similarity, proportionality and the Pythagorean theorem. Focus on mathematical language, connections, patterns and reasoning, and additive and multiplicative reasoning. | Prerequisites: None. | Student may receive credit for only one of the following: (MAT051 and MAT052 and MAT053) OR MAT081 OR MAT082 OR MAT085. | Acad | LEC 4.0 4.0 4.0 | S |
| MAT082 | 2019 Fall | Basic Arithmetic | | Primary emphasis on conceptual understanding of and solving problems involving whole numbers, integers, mathematical operations, decimals, decimal operations, fractions, percentages, angles and geometric figures. Use of | Prerequisites: None. | Student may receive credit for only one of the following: (MAT051 and MAT052 and MAT053), OR MAT081, OR MAT082, OR MAT085. | Acad | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | systems of measure, similarity, proportionality and the Pythagorean theorem. Focus on mathematical language, connections, patterns and reasoning, and additive and multiplicative reasoning. | | | | | |
| MAT085 | 2019 Fall | Basic Arithmetic/College Mathematics Prep | | Primary emphasis on conceptual understanding of and solving problems involving whole numbers, integers, mathematical operations, decimals, decimal operations, fractions, percentages, angles and geometric figures. Use of systems of measure, similarity, proportionality and the Pythagorean theorem. Focus on mathematical language, connections, patterns and reasoning, and additive and multiplicative reasoning. | Prerequisites: None. | Student may receive credit for only one of the following: (MAT051 and MAT052 and MAT053), OR MAT081, OR MAT082, OR MAT085. MAT085 is designed for students that do not place into MAT140 or MAT141 or MAT142, but intend to complete MAT14+ College Mathematics for their degree path. MAT085 is designed to prepare students to take MAT145 College Mathematics with Review. Additional topics from MAT09+ Introductory Algebra will be included to prepare students for MAT145 College Mathematics with Review. | Acad | LEC 5.0 5.0 5.0 | S |
| MAT090 | 2019 Fall | Introductory Algebra | | Emphasis on meanings related to variable, equality, inequality, equivalence. The use of additive and multiplicative reasoning in solving linear equations and inequalities in one variable. Validation of solution(s) through a reasonable mathematical defense. Transfer and apply knowledge through a process of sense making and reasonableness in mathematical problems and practical application situations. Recognize patterns and organize data to represent situations where output is related to input. Understand | Prerequisites: A grade of C or better in each of the following courses: (MAT051 and MAT052 and MAT053), OR a grade of C or better in (MAT081 or MAT082 or MAT083 or MAT085 or MAT089), OR an appropriate district placement. | MAT090 students may receive credit for only one of the following: (MAT055 and MAT056 and MAT057), OR MAT090, OR MAT091, OR MAT092, OR MAT095, OR MAT096. | Acad | LEC 5.0 5.0 5.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | the concept of function and be able to represent functions in multiple ways, including tables, algebraic rules, graphs and contextual situations, and make connections among these representations. Read, represent, and interpret linear function relationships numerically, analytically, graphically and verbally and connect the different representations. Model and solve real world problems involving constant rate of change. | | | | | |
| MAT091 | 2019 Fall | Introductory Algebra | | Emphasis on meanings related to variable, equality, inequality, equivalence. The use of additive and multiplicative reasoning in solving linear equations and inequalities in one variable. Validation of solution(s) through a reasonable mathematical defense. Transfer and apply knowledge through a process of sense making and reasonableness in mathematical problems and practical application situations. Recognize patterns and organize data to represent situations where output is related to input. Understand the concept of function and be able to represent functions in multiple ways, including tables, algebraic rules, graphs and contextual situations, and make connections among these representations. Read, represent, and interpret linear function relationships numerically, analytically, graphically and verbally and | Prerequisites: A grade of C or better in each of the following courses: (MAT051 and MAT052 and MAT053), OR a grade of C or better in (MAT081 or MAT082 or MAT083 or MAT085 or MAT089), OR an appropriate district placement. | MAT091 students may receive credit for only one of the following: (MAT055 and MAT056 and MAT057), OR MAT090, OR MAT091, OR MAT092, OR MAT095, OR MAT096. | Acad | LEC 4.0 4.0 4.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | connect the different representations. Model and solve real world problems involving constant rate of change. | | | | | |
| MAT092 | 2019 Fall | Introductory Algebra | | Emphasis on meanings related to variable, equality, inequality, equivalence. The use of additive and multiplicative reasoning in solving linear equations and inequalities in one variable. Validation of solution(s) through a reasonable mathematical defense. Transfer and apply knowledge through a process of sense making and reasonableness in mathematical problems and practical application situations. Recognize patterns and organize data to represent situations where output is related to input. Understand the concept of function and be able to represent functions in multiple ways, including tables, algebraic rules, graphs and contextual situations, and make connections among these representations. Read, represent, and interpret linear function relationships numerically, analytically, graphically and verbally and connect the different representations. Model and solve real world problems involving constant rate of change. | Prerequisites: A grade of C or better in each of the following courses: (MAT051 and MAT052 and MAT053), OR a grade of C or better in (MAT081 or MAT082 or MAT083 or MAT085 or MAT089), OR an appropriate district placement. | MAT092 students may receive credit for only one of the following: (MAT055 and MAT056 and MAT057), OR MAT090, OR MAT091, OR MAT092, OR MAT095, OR MAT096. | Acad | LEC 3.0 3.0 3.0 | S |
| MAT095 | 2019 Fall | Introductory Algebra/College Algebra Prep | | Emphasis on meanings related to variable, equality, inequality, equivalence. The use of additive and multiplicative reasoning in solving linear equations and | Prerequisites: None. | MAT095 students may receive credit for only one of the following: (MAT055 and MAT056 and MAT057), OR MAT090, OR MAT091, OR MAT092, OR MAT095, OR | Acad | LEC 5.0 5.0 5.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | inequalities in one variable. Validation of solution(s) through a reasonable mathematical defense. Transfer and apply knowledge through a process of sense making and reasonableness in mathematical problems and practical application situations. Recognize patterns and organize data to represent situations where output is related to input. Understand the concept of function and be able to represent functions in multiple ways, including tables, algebraic rules, graphs and contextual situations, and make connections among these representations. Read, represent, and interpret linear function relationships numerically, analytically, graphically and verbally, and connect the different representations. Model and solve real world problems involving constant rate of change. | | MAT096. MAT095 is designed to prepare students that do not place into MAT120 or MAT121 or MAT122, but intend to complete College Algebra for their degree path. MAT095 is designed to prepare students to take MAT155 College Algebra/Functions with Review or MAT156 College Algebra/Functions with Review. Additional topics from MAT08+ Basic Arithmetic and MAT12+ Intermediate Algebra will be included to prepare students for MAT155 College Algebra/Functions with Review or MAT156 College Algebra/Functions with Review. | | | |
| MAT096 | 2019 Fall | Introductory Algebra/College Algebra Prep | | Emphasis on meanings related to variable, equality, inequality, equivalence. The use of additive and multiplicative reasoning in solving linear equations and inequalities in one variable. Validation of solution(s) through a reasonable mathematical defense. Transfer and apply knowledge through a process of sense making and reasonableness in mathematical problems and practical application situations. Recognize patterns and organize data to represent | Prerequisites: None. | MAT096 students may receive credit for only one of the following: (MAT055 and MAT056 and MAT057), OR MAT090, OR MAT091, OR MAT092, OR MAT095, OR MAT096. MAT096 is designed to prepare students that do not place into MAT120 or MAT121 or MAT122, but intend to complete College Algebra for their degree path. MAT096 is designed to prepare students to take MAT155 College Algebra/Functions with Review or MAT156 College Algebra/Functions with Review. | Acad | LEC 6.0 6.0 6.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | situations where output is related to input. Understand the concept of function and be able to represent functions in multiple ways, including tables, algebraic rules, graphs and contextual situations, and make connections among these representations. Read, represent, and interpret linear function relationships numerically, analytically, graphically and verbally and connect the different representations. Model and solve real world problems involving constant rate of change. | | Additional topics from MAT08+ Basic Arithmetic and MAT12+ Intermediate Algebra will be included to prepare students for MAT155 College Algebra/Functions with Review or MAT156 College Algebra/Functions with Review. | | | |
| MAT103 | 2020 Summer | College Mathematics Prep | | Foundational knowledge of topics necessary for success in College Mathematics. Emphasis on understanding mathematical concepts and their applications. Topics include number sense, proportional reasoning, numerical and algebraic expressions, linear equations, and representations of data. | Prerequisites: None. | MAT103 students may receive credit for only one of the following: (MAT052 and MAT053 and MAT055) or MAT103. This course is designed for students that do not qualify for MAT141 or MAT142, but intend to complete MAT14+ College Mathematics for their degree path. This course covers topics from basic arithmetic and introductory algebra. | Acad | LEC 3.0 3.0 3.0 | S |
| MAT108 | 2019 Fall | Tutored Mathematics | | Structured tutorial assistance and math study skills to help students achieve success in a mathematics course in which they are concurrently enrolled. Mathematics study skills emphasized. | Prerequisites: None. Corequisites: (MAT150 or MAT151 or MAT151AA or MAT151AB or MAT151AC or MAT151AD or MAT152 or MAT155 or MAT156), OR any lower numbered MAT class, OR permission of Department/Division Chair. | MAT108 may be repeated for a total of ten (10) credits. | Acad | LEC 2.0 2.0 2.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| MAT108AA | 2019 Fall | Tutored Mathematics | | Structured tutorial assistance and math study skills to help students achieve success in a mathematics course in which they are concurrently enrolled. Mathematics study skills emphasized. | Prerequisites: None. Corequisites: (MAT150 or MAT151 or MAT151AA or MAT151AB or MAT151AC or MAT151AD or MAT152 or MAT155 or MAT156), OR any lower numbered MAT class, OR permission of Department/Division Chair. | MAT108AA may be repeated for a total of ten (10) credit hours. | Acad | LEC 1.0 1.0 1.0 | S |
| MAT112 | 2020 Summer | Mathematical Concepts and Applications | | A problem solving approach to mathematics as it applies to real-life situations. Development, use and communication of mathematical concepts and applications that relate to measurement, percentage, practical geometry, statistics, finance, and unit conversions. | Prerequisites: None. | | Acad | LEC 3.0 3.0 3.0 | S |
| MAT114 | 2020 Summer | College Algebra Prep | | Proper use of function notation, average rate of change of functions, and evaluating arithmetic and algebraic expressions. Analysis of linear and quadratic equations, and their applications; graphs of linear and quadratic functions; operations on polynomial expressions. | Prerequisites: None. | MAT114 students may receive credit for only one of the following: MAT114, OR MAT115. | Acad | LEC 4.0 4.0 4.0 | S |
| MAT115 | 2020 Summer | College Algebra Prep | | Proper use of function notation, average rate of change of functions, and evaluating arithmetic and algebraic expressions. Analysis of linear and quadratic equations, and their applications; graphs of linear and quadratic functions; operations on polynomial expressions. | Prerequisites: None. | MAT115 students may receive credit for only one of the following: MAT114, OR MAT115. | Acad | LEC 5.0 5.0 5.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| MAT120 | 2019 Fall | Intermediate Algebra | | Analysis of rational, radical, quadratic and exponential equations, functions and applications; graphs of radical, quadratic and exponential functions; operations on polynomial, rational, and radical expressions. | Prerequisites: A grade of C or better in each of the following courses: (MAT055 and MAT056 and MAT057), OR a grade of C or better in (MAT090 or MAT091 or MAT092 or MAT095 or MAT096), OR an appropriate district placement. | MAT120 students may receive credit for only one of the following: MAT120, OR MAT121, OR MAT122 OR MAT126. | Acad | LEC 5.0 5.0 5.0 | S |
| MAT121 | 2019 Fall | Intermediate Algebra | | Analysis of rational, radical, quadratic and exponential equations, functions and applications; graphs of radical, quadratic and exponential functions; operations on polynomial, rational, and radical expressions. | Prerequisites: A grade of C or better in each of the following courses: (MAT055 and MAT056 and MAT057), OR a grade of C or better in (MAT090 or MAT091 or MAT092 or MAT095 or MAT096), OR an appropriate district placement. | MAT121 students may receive credit for only one of the following: MAT120, OR MAT121, OR MAT122 OR MAT126. | Acad | LEC 4.0 4.0 4.0 | S |
| MAT122 | 2019 Fall | Intermediate Algebra | | Analysis of rational, radical, quadratic and exponential equations, functions and applications; graphs of radical, quadratic and exponential functions; operations on polynomial, rational, and radical expressions. | Prerequisites: A grade of B or better in each of the following courses: (MAT055 and MAT056 and MAT057), OR a grade of B or better in (MAT090 or MAT091 or MAT092 or MAT095 or MAT096), OR an appropriate district placement. | MAT122 students may receive credit for only one of the following: MAT120, OR MAT121, OR MAT122 OR MAT126. | Acad | LEC 3.0 3.0 3.0 | S |
| MAT126 | 2019 Summer | Intermediate Algebra with Review | | Analysis of rational, radical, quadratic and exponential equations, functions and applications; graphs of radical, quadratic and exponential functions; operations on polynomial, rational, and radical expressions. | Prerequisites: None. | MAT126 students may receive credit for only one of the following: MAT120, OR MAT121, OR MAT122, OR MAT126. This course is designed for students that do not qualify for MAT120, MAT121, or MAT122, but need MAT12+ Intermediate Algebra to fulfill a degree requirement OR intend to complete MAT15+ College Algebra for their degree path. Review of MAT08+ Basic | Acad | LEC 6.0 6.0 6.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Arithmetic and/or MAT09+ Introductory Algebra as needed. | | | |
| MAT140 | 2021 Spring | College Mathematics | | Working knowledge of college-level mathematics and its applications to real-life problems. Emphasis on understanding mathematical concepts and their applications. Topics include proportional reasoning, modeling, finance, probability, and statistics. | Prerequisites: An appropriate District placement or a grade of C or better in (MAT052, MAT053 and MAT055), or (MAT055, MAT056 and MAT057) or MAT085 or MAT09+ or MAT103 or MAT114 or MAT115 or MAT12+. | Students may receive credit for only one of the following: MAT140, MAT141, MAT142, MAT145, or MAT146. Students do not need to take all MAT classes in numerical order; please consult with an advisor for the appropriate math sequence for student educational goals. Course Attribute(s): General Education Designation: Mathematics - [MA] Arizona Shared Unique Number SUN# MAT 1142 | Acad | LEC 5.0 5.0 5.0 | S |
| MAT141 | 2021 Spring | College Mathematics | | Working knowledge of college-level mathematics and its applications to real-life problems. Emphasis on understanding mathematical concepts and their applications. Topics include proportional reasoning, modeling, finance, probability, and statistics. | Prerequisites: An appropriate District placement or a grade of C or better in (MAT052, MAT053 and MAT055) or (MAT055, MAT056 and MAT057) or MAT085 or MAT09+ or MAT103 or MAT114 or MAT115 or MAT12+. | MAT141 students may receive credit for only one of the following: MAT140, MAT141, MAT142, MAT145 or MAT146. Students do not need to take all MAT classes in numerical order; please consult with an advisor for the appropriate math sequence for student educational goals. Course Attribute(s): General Education Designation: Mathematics - [MA] Arizona Shared Unique Number SUN# MAT1142 | Acad | LEC 4.0 4.0 4.0 | S |
| MAT142 | 2021 Spring | College Mathematics | | Working knowledge of college-level mathematics and its applications to real-life problems. Emphasis on understanding mathematical concepts and their applications. Topics include proportional reasoning, modeling, finance, probability, and statistics. | Prerequisites: An appropriate District placement or a grade of C or better in (MAT052, MAT053 and MAT055) or (MAT055, MAT056 and MAT057) or MAT085 or MAT09+ or MAT103 or MAT114 or MAT115 or MAT12+. | MAT142 students may receive credit for only one of the following: MAT140, MAT141, MAT142, MAT145 or MAT146. Students do not need to take all MAT classes in numerical order; please consult with an advisor for the appropriate math sequence for student educational goals. Course Attribute(s): General Education Designation: Mathematics - [MA] Arizona Shared Unique Number SUN# MAT1142 | Acad | LEC 3.0 3.0 3.0 | S |
| MAT145 | 2020 Summer | College Mathematics with Review | | Working knowledge of college-level mathematics and | Prerequisites: None. | MAT145 students may receive credit for only one of the | Acad | LEC 5.0 5.0 5.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | its applications to real-life problems. Emphasis on understanding mathematical concepts and their applications. Topics include proportional reasoning, modeling, finance, probability, and statistics, along with review of arithmetic and introductory algebra, as needed. | | following: MAT140, MAT141, MAT142, MAT145, or MAT146. This course is designed for students that do not qualify for MAT141 or MAT142, but intend to complete MAT14+ College Mathematics for their degree path. Review of Basic Arithmetic and Introductory Algebra as needed. | | | |
| MAT146 | 2020 Summer | College Mathematics with Review | | Working knowledge of college-level mathematics and its applications to real-life problems. Emphasis on understanding mathematical concepts and their applications. Topics include proportional reasoning, modeling, finance, probability, and statistics, along with review of arithmetic and introductory algebra, as needed. | Prerequisites: None. | MAT146 students may receive credit for only one of the following: MAT140, MAT141, MAT142, MAT145, or MAT146. This course is designed for students that do not qualify for MAT141 or MAT142, but intend to complete MAT14+ College Mathematics for their degree path. Review of Basic Arithmetic and Introductory Algebra as needed. | Acad | LEC 6.0 6.0 6.0 | S |
| MAT150 | 2022 Fall | College Algebra/Functions | | Analysis and interpretation of the behavior and nature of functions including linear, quadratic, higher-order polynomials, rational, exponential, logarithmic, power, absolute value, and piecewise-defined functions; systems of equations, using multiple methods including matrices, and modeling and solving real world problems. | Prerequisites: A grade of C or better in MAT095, or MAT096, or MAT114, or MAT115, or MAT12+, OR an appropriate district placement for MAT15+, OR permission of Department or Division Chair. | Students may receive credit for only one of the following: MAT150, OR MAT151, OR MAT152, OR MAT155, OR MAT156. | Acad | LEC 5.0 5.0 5.0 | S |
| MAT151 | 2022 Fall | College Algebra/Functions | | Analysis and interpretation of the behavior and nature of functions including linear, quadratic, higher-order polynomials, rational, exponential, logarithmic, power, absolute value, and piecewise-defined functions; systems of equations, using multiple methods including | Prerequisites: A grade of C or better in MAT095, or MAT096, or MAT114, or MAT115, or MAT12+, OR an appropriate district placement for MAT15+, OR permission of Department or Division Chair. | Students may receive credit for only one of the following: MAT150, OR MAT151, OR MAT152, OR MAT155, OR MAT156. | Acad | LEC 4.0 4.0 4.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | matrices, and modeling and solving real world problems. | | | | | |
| MAT152 | 2022 Fall | College Algebra/Functions | | Analysis and interpretation of the behavior and nature of functions including linear, quadratic, higher-order polynomials, rational, exponential, logarithmic, power, absolute value, and piecewise-defined functions; systems of equations, using multiple methods including matrices, and modeling and solving real world problems. | Prerequisites: A grade of C or better in MAT095, or MAT096, or MAT114, or MAT115, or MAT12+, OR an appropriate district placement for MAT15+, OR permission of Department or Division Chair. | Students may receive credit for only one of the following: MAT150, OR MAT151, OR MAT152, OR MAT155, OR MAT156. | Acad | LEC 3.0 3.0 3.0 | S |
| MAT155 | 2022 Fall | College Algebra/Functions with Review | | Analysis and interpretation of the behavior and nature of functions including linear, quadratic, higher-order polynomials, rational, exponential, logarithmic, power, absolute value, and piecewise-defined functions; systems of equations, using multiple methods including matrices, and modeling and solving real world problems. | Prerequisites: A grade of C or better in (MAT055, MAT056, and MAT057), or MAT09+, or MAT114, or MAT115, or an appropriate district placement for MAT120 or MAT121 or MAT122, or permission of Department/Division Chair. | Students may receive credit for only one of the following: MAT150, OR MAT151, OR MAT152, OR MAT155, OR MAT156. This course is designed for students that do not qualify for MAT150 or MAT151 or MAT152, but intend to complete MAT15+ College Algebra for their degree path. Review of MAT12+ Intermediate Algebra as needed. | Acad | LEC 5.0 5.0 5.0 | S |
| MAT156 | 2022 Fall | College Algebra/Functions with Review | | Analysis and interpretation of the behavior and nature of functions including linear, quadratic, higher-order polynomials, rational, exponential, logarithmic, power, absolute value, and piecewise-defined functions; systems of equations, using multiple methods including matrices, and modeling and solving real world problems, along with review of intermediate algebra, as needed. | Prerequisites: A grade of C or better in each of the following: (MAT055, MAT056, and MAT057), OR MAT09+ or MAT114 or MAT115, OR an appropriate district placement for MAT120 or MAT121 or MAT122, OR permission of Department or Division Chair. | Students may receive credit for only one of the following: MAT150, OR MAT151, OR MAT152, OR MAT155, OR MAT156. This course is designed for students that do not qualify for MAT150 or MAT151 or MAT152, but intend to complete MAT15+ College Algebra for their degree path. Review of MAT12+ Intermediate Algebra as needed. | Acad | LEC 6.0 6.0 6.0 | S |
| MAT172 | 2019 Fall | Finite Mathematics | | An introduction to the mathematics required for the study of social and behavioral sciences. Includes | Prerequisites: A grade of C or better in (MAT150 or MAT151 or MAT151AA or | Course Attribute(s): General Education Designation: Mathematics - [MA] | Acad | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | combinatorics, probability, descriptive statistics, matrix algebra, linear programming and the mathematics of finance. Includes applications of technology in problem-solving. | MAT151AB or MAT151AC or MAT151AD or MAT152 or MAT155 or MAT156), OR MAT187, OR an appropriate district placement. | | | | |
| MAT182 | 2019 Fall | Plane Trigonometry | | A study of measures of angles, properties of graphs of trigonometric functions, fundamental identities, addition and half-angle formulas, inverse trigonometric functions, solutions of trigonometric equations, complex numbers and properties of triangle solution. May receive credit for only one of the following: MAT182 or MAT187. | Prerequisites: A grade of C or better in (MAT150 or MAT151 or MAT151AA or MAT151AB or MAT151AC or MAT151AD or MAT152 or MAT155 or MAT156), OR an appropriate district placement. Corequisites: (MAT150 or MAT151 or MAT151AA or MAT151AB or MAT151AC or MAT151AD or MAT152 or MAT155 or MAT156). | MAT182 students may receive credit for only one of the following: MAT182 or MAT187. Course Attribute(s): Course Attribute(s): General Education Designation: Mathematics - [MA] in combination with: MAT150 or MAT151 or MAT152 or MAT155 or MAT156 | Acad | LEC 3.0 3.0 3.0 | S |
| MAT187 | 2024 Fall | Precalculus | | Topics in algebra and trigonometry in preparation for calculus. | Prerequisites: A grade of C or better in MAT15+, or an appropriate district placement. | | | LEC 5.0 5.0 5.0 | S |
| MAT188 | 2023 Fall | Precalculus | | Topics in algebra and trigonometry in preparation for calculus. | Prerequisites: A grade of C or better in MAT 15+, OR an appropriate district placement. | Students may receive credit for only one of the following: MAT182 OR MAT187 OR MAT188. | Acad | LEC 4.0 4.0 4.0 | S |
| MAT206 | 2020 Summer | Elements of Statistics | | Basic concepts and applications of statistics, including data description, estimation and hypothesis tests. | Prerequisites: A grade of C or better in MAT14+, or MAT15+, or MAT187, or equivalent, or an appropriate District placement, or permission of Department/Division Chair. | Course Attribute(s): General Education Designation: Computer/Statistics/Quantitative Applications - [CS] Course Attribute(s): Arizona Shared Unique Number SUN#: MAT 1160 | Acad | LEC 3.0 3.0 3.0 | S |
| MAT212 | 2020 Summer | Brief Calculus | | Introduction to the theory, techniques and applications of the differential and integral calculus of functions with | Prerequisites: A grade of C or better in MAT15+, or MAT187, or | Students may receive credit for only one of the following: MAT212 or MAT213. Course Attribute(s): General Education | Acad | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | problems related to business, life, and the social sciences. | an appropriate District placement. | Designation: Mathematics - [MA] Arizona Shared Unique Number SUN# 2212 | | | |
| MAT213 | 2020 Summer | Brief Calculus | | Introduction to the theory, techniques, and applications of the differential and integral calculus of functions with problems related to business, life, and the social sciences. | Prerequisites: A grade of C or better in MAT15+, or MAT187, or an appropriate District placement. | Students may receive credit for only one of the following: MAT212 or MAT213. Course Attribute(s): General Education Designation: Mathematics - [MA] Arizona Shared Unique Number SUN# 2212 | Acad | LEC 4.0 4.0 4.0 | S |
| MAT217 | 2021 Fall | Mathematical Analysis for Business | | An introduction to the mathematics required for the study of business. Includes multivariable optimization, Lagrange multipliers, linear programming, linear algebra, probability, random variables, discrete and continuous distributions. | Prerequisites: A grade of C or better in MAT212, or MAT213, or MAT220, or MAT221. | Students may receive credit for only one of the following: MAT217 or MAT218. | Acad | LEC 3.0 3.0 3.0 | S |
| MAT218 | 2021 Fall | Mathematical Analysis for Business | | An introduction to the mathematics required for the study of business. Includes multivariable optimization, Lagrange multipliers, linear programming, linear algebra, probability, random variables, discrete and continuous distributions. | Prerequisites: A grade of C or better in MAT212, or MAT213, or MAT220, or MAT221. | Students may receive credit for only one of the following: MAT217 or MAT218. | Acad | LEC 4.0 4.0 4.0 | S |
| MAT220 | 2024 Fall | Calculus with Analytic Geometry I | | Limits, continuity, differential and integral calculus of functions of one variable. | Prerequisites: A grade of C or better in MAT187, or MAT188, or an appropriate District placement. | | | LEC 5.0 5.0 5.0 | S |
| MAT221 | 2024 Fall | Calculus with Analytic Geometry I | | Limits, continuity, differential and integral calculus of functions of one variable. | Prerequisites: A grade of C or better in MAT187, or MAT188, or an appropriate District placement. | | | LEC 4.0 4.0 4.0 | S |
| MAT225 | 2021 Fall | Elementary Linear Algebra | | Introduction to matrices, systems of linear equations, determinants, vector spaces, linear transformations and eigenvalues. Emphasizes the development of computational skills. | Prerequisites: A grade of C or better in MAT212 or MAT213 or MAT220 or MAT221, or equivalent. | Acad | Acad | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| MAT227 | 2020 Spring | Discrete Mathematical Structures | | Course emphasizes discrete mathematics connections to computer science by exposing students to foundational concepts of set theory, logic, counting, induction, proof techniques, graph theory, and algorithms. | Prerequisites: A grade of C or better in MAT212, or MAT213, or MAT220, or MAT221, or permission of Department or Division Chair. | | | LEC 3.0 3.0 3.0 | S |
| MAT230 | 2022 Fall | Calculus with Analytic Geometry II | | Techniques of integration for both proper and improper integrals with applications to the physical and social sciences, elements of analytic geometry, and the analysis of sequences and series. | Prerequisites: A grade of C or better in MAT220 or MAT221 or equivalent. | Students may receive credit for only one of the following: MAT230 or MAT231 Course Attribute(s): General Education Designation: Mathematics - [MA] Arizona Shared Unique Number SUN#: MAT 2230 | Acad | LEC 5.0 5.0 5.0 | S |
| MAT231 | 2022 Fall | Calculus with Analytic Geometry II | | Techniques of integration for both proper and improper integrals with applications to the physical and social sciences, elements of analytic geometry, and the analysis of sequences and series. | Prerequisites: A grade of C or better in MAT220 or MAT221 or equivalent. | MAT231 student may receive credit for only one of the following: MAT230 or MAT231. General Education Designation: Mathematics - [MA] Arizona Shared Unique Number SUN# MAT 2230 | Acad | LEC 4.0 4.0 4.0 | S |
| MAT240 | 2008 Fall | Calculus with Analytic Geometry III | | Multivariate calculus including vectors, vector- valued functions, partial differentiation, multiple integration, and an introduction to vector fields. | Prerequisites: A grade of C or better in Grade of C or better in MAT230 or MAT231. | MAT240 student may receive credit for only one of the following: MAT240 or MAT241. Course Attribute(s): General Education Designation: Mathematics - [MA] | Acad | LEC 5.0 5.0 5.0 | S |
| MAT241 | 2011 Fall | Calculus with Analytic Geometry III | | Multivariate calculus including vectors, vector- valued functions, partial differentiation, multiple integration and an introduction to vector fields. | Prerequisites: A grade of C or better in MAT230 or MAT231. | Students may receive credit for only one of the following: MAT240 or MAT241. Course Attribute(s): General Education Designation: Mathematics - [MA] Arizona Shared Unique Number SUN#: MAT 2241 | Acad | LEC 4.0 4.0 4.0 | S |
| MAT256 | 2021 Spring | Investigating Quantity: Number, Operations and Numeration Systems | | Explore number, numeration systems and operations on numbers. Techniques of problem solving with an emphasis on exploring a variety of strategies. Use a variety of visualization techniques to develop a conceptual understanding of these topics. | Prerequisites: A grade of C or better in (MAT15+ or higher), or (MAT12+ and MAT14+), or [MAT14+ and (MAT114 or MAT115)], or (MAT14+ and an appropriate District placement into MAT150, MAT151, or MAT152), or permission | MAT256 is designed to meet requirements for prospective elementary education teachers. | Acad | LEC 4.0 4.0 4.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | of Department/Division Chair. | | | | |
| MAT257 | 2020 Summer | Investigating Geometry, Probability and Statistics | | Explores geometry, measurement, probability and statistics. Uses visualization, technologies, problem solving, reasoning and proof to develop a conceptual understanding of these topics. | Prerequisites: A grade of C or better in MAT256 or permission of Department/Division Chair. | MAT257 is designed to meet the requirements for prospective elementary education teachers. | Acad | LEC 4.0 4.0 4.0 | S |
| MAT276 | 2009 Fall | Modern Differential Equations | | Introduces differential equations, theoretical and practical solution techniques with applications. Problem solving using MATLAB. | Prerequisites: A grade of C or better in MAT230 or MAT231 or permission of Department/Division Chair. | Course Attribute(s): General Education Designation: Mathematics - [MA] | Acad | LEC 4.0 4.0 4.0 | S |
| MAT277 | 2009 Fall | Modern Differential Equations | | Introduces differential equations, theoretical and practical solution techniques with applications. Problem solving using MATLAB. | Prerequisites: A grade of C or better in MAT230 or MAT231 or permission of Department/Division Chair. | Course Attribute(s): General Education Designation: Mathematics - [MA] | Acad | LEC 3.0 3.0 3.0 | S |
| MAT280 | 2022 Fall | Foundational Statistics for Engineers | ECE280 | Fundamentals of probability, descriptive statistics, sampling distributions, parameter estimation, tests of hypotheses, regression analysis, analysis of variance, and design of experiments. | Prerequisites: A grade of C or better in MAT220, or MAT221, or equivalent. | | Acad | L+L 3.0 5.0 5.0 | T |
| MAT282AA | 2014 Summer | Service-Learning Experience in Mathematics | | Unpaid Service-Learning (SL) experience, completed with approved community partner. | Prerequisites: Permission of Instructor. | MAT282AA may be repeated for a total of six (6) credit hours. Standard grading available according to procedures outlined in catalog. | Acad | LAB 1.0 1.0 0.0 | L |
| MAT282AB | 2014 Summer | Service-Learning Experience in Mathematics | | Unpaid Service-Learning (SL) experience, completed with approved community partner. | Prerequisites: Permission of Instructor. | MAT282AB may be repeated for a total of six (6) credit hours. Standard grading available according to procedures outlined in catalog. | Acad | LAB 2.0 2.0 0.0 | L |
| MAT282AC | 2014 Summer | Service-Learning Experience in Mathematics | | Unpaid Service-Learning (SL) experience, completed with approved community partner. | Prerequisites: Permission of Instructor. | MAT282AC may be repeated for a total of six (6) credit hours. Standard grading available according to procedures outlined in catalog. | Acad | LAB 3.0 3.0 0.0 | L |
| MAT295 | 2020 Summer | Special Topics in Mathematics | | Conceptual and computational aspects of a special topic in modern mathematics. | Prerequisites: Permission of | | | LEC 1.0 1.0 1.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | Department/Division Chair. | | | | |
| MAT298AA | 2020 Summer | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. | Prerequisites: Permission of Department/Division Chair. | Acad | | LAB 1.0 1.0 0.0 | Z |
| MAT298AB | 2020 Summer | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. | Prerequisites: Permission of Department/Division Chair. | Acad | | LAB 2.0 2.0 0.0 | Z |
| MAT298AC | 2020 Summer | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be | Prerequisites: Permission of Department/Division Chair. | MAT298AC may be repeated for a total of six (6) credit hours. | Acad | LAB 3.0 3.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | combined to maximize student development. | | | | | |
| MCO120 | 2022 Fall | Media and Society | | Study of historical and contemporary roles of media and its pervasiveness in society as it relates to culture, politics and education. | Prerequisites: Eligibility for ENG101 or ENG107 or permission of Instructor. | | Occ | LEC 3.0 3.0 3.0 | S |
| MCO220 | 2016 Fall | Cultural Diversity and the Media | | Images of the diverse cultures and gender issues within the U.S. media. Exploration of racial and gender roles which shape the media as well as media roles which influence U.S. race relations and racial change. Roles, contributions, and challenges of the minority press in the United States. | Prerequisites: A grade of C or better in ENG101 or ENG107. | Course Attribute(s): General Education Designation: Cultural Diversity - [C] General Education Designation: Literacy and Critical Inquiry - [L] | Occ | LEC 3.0 3.0 3.0 | S |
| MCO296WA | 2002 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor. | | Occ | LAB 1.0 5.0 0.0 | Z |
| MCO296WB | 2002 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of | | | LAB 2.0 10.0 0.0 | Z |



Occ

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor. | | | | |
| MCO296WC | 2002 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor. | | Occ | LAB 3.0 15.0 0.0 | Z |
| MCO296WD | 2002 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor. | | Occ | LAB 4.0 20.0 0.0 | Z |
| MCO298AA | 2023 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured | Prerequisites: Permission of Program Director or Instructor. | | Occ | LAB 1.0 1.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | | | | | |
| MCO298AB | 2023 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | Prerequisites: Permission of Program Director or Instructor. | | Occ | LAB 2.0 2.0 0.0 | Z |
| MCO298AC | 2023 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | Prerequisites: Permission of Program Director or Instructor. | | Occ | LAB 3.0 3.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| MCP100 | 2022 Fall | Basics of Meat Cutting | | Fundamentals of meat department safety and sanitation. Introduction to power and hand tools, equipment breakdown and setup, meat department operations, teamwork, and customer service. | Prerequisites: None. | | CLK | 146 | |
| MCP101 | 2022 Fall | Introduction to Meat Clerk | | Introduction to the retail meat environment, weight conversions, meat processing, inventory control, basic knife skills, packaging, stocking, and merchandising skills. Emphasis on accuracy, quality, and productivity. | Prerequisite: None. | | CLK | 146 | |
| MCP103 | 2022 Fall | Meat Fabrication | | Reinforcement of skills for processing cuts of meat, including specialized cuts of meat. Course emphasizes sanitation, accuracy, quality, productivity, retail sales, and customer service. | Prerequisites: None. | | CLK | 176 | |
| MCP104 | 2022 Fall | Merchandising | | Advanced cutting, wrapping, weighing, and displaying retail cuts of meat. Topics include sanitation, accuracy, quality control, productivity, retail sales, and customer service. | Prerequisites: None. | | CLK | 176 | |
| MDC103 | 2022 Fall | Introduction to Medical Assisting | | This course develops the foundation of healthcare through an understanding of anatomy and physiology, medical terminology, application of basic pathophysiology as it relates to entry-level medical assisting, emergency preparedness, and demonstration of CPR completion. Medical terminology as it relates to structures, functions, diseases, procedures, and diagnostic testing. Building and analyzing terms using | Program admission, and successful completion of RDG100 or higher or appropriate reading placement into CRE101. Health and Safety Documentation uploaded to American DataBank and verified prior to being enrolled in the class. | Health and Safety Documentation Required ? Documents listed below should be uploaded into American DataBank at least 3 weeks prior to class start and must be uploaded and verified before enrollment can occur: MMR (measles, mumps,rubella) Varicella (chickenpox) TDaP (tetanus, diphtheria, pertussis) Influenza (flu) Two Step TB (tuberculosis) Hep B Series (hepatitis B) Basic Life Support (BLS) Provider CPR certification Level One Fingerprint Clearance Card | CLK | 156 | |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | word parts. Medical abbreviations, symbols and correct spelling and pronunciation, Professionalism in healthcare to ensure students are ready to enter the professional workplace including etiquette, image, manners, communication, professional relationships, responsibility and accountability, respectfulness, patient privacy. Empathy, compassion and emotional maturity specific to the healthcare setting. Focus on development of personal and professional communication skills and an understanding of how effective communication skills promote teamwork. Additional focus on intercultural communication strategies. | | | | | |
| MDC104 | 2022 Fall | Fundamentals of Administrative Medical Assisting | | This course explores fundamental administrative procedures in various healthcare settings. Overview of the daily operations, principles and procedures for administrative skills including: medical record management, introduction to the electronic health record (EHR), and application of insurance, coding and billing. Basic administrative office policies, procedures, appointment scheduling, telephone etiquette, patient reception, financial practices, third party payers, health insurance, and basic understanding of medical billing and coding. Health organization structure, | Prerequisites: MDC103. | | CLK | 159 | |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | patient rights and quality care. Definition and importance of values, basic understanding of medical law and ethics. | | | | | |
| MDC105 | 2022 Fall | Fundamentals of Clinical Medical Assisting I | | Overview of the daily operations, principles and procedures for clinical medical assisting, including: compliance with Occupational Safety and Health Administration (OSHA), the Centers for Disease Control and Prevention (CDC), and Clinical Laboratory Improvement Amendments (CLIA). Infection control practices including, proper disposal of biohazardous materials and sharps, aseptic handwashing, appropriate application of personal protective equipment (PPE), blood borne pathogens, fomites, chain of infection, setting up and maintaining a sterile field, surgical instrument identification and sterilization, sterile techniques, and application of sterile gloves. Definition, application and importance of performing vital signs accurately (blood pressure, pulse, respirations, temperature, pulse oximetry, height and weight). Basic understanding of the fundamental concepts of nutrition and diet as they relate to human health and disease. | Prerequisites: A grade of C or better in MDC104. | | CLK | 141 | |
| MDC106 | 2020 Fall 1 | Fundamentals of Clinical Medical Assisting II | | This course explores all aspects of clinical medical assisting skills, concepts, and procedures in a simulated healthcare setting. Topics | Prerequisites: MDC105. | | CLK | 205 | |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | include medical specialty practices and basic point-of-care testing (POCT), specimen collection and handling while complying with state and federal government agencies. The course also explores principles and procedures for basic dosage calculation and medication administration specific to medical assisting. Theory and practice of basic phlebotomy procedures and equipment. This course prepares students for the medical assisting national credential examination, and provides tools and strategies for gainful employment. | | | | | |
| MDC106DC | 2022 Fall | Fundamentals of Clinical Medical Assisting II | | This course explores all aspects of clinical medical assisting skills, concepts, and procedures in a simulated healthcare setting. Topics include medical specialty practices and basic point-of-care testing (POCT), specimen collection and handling while complying with state and federal government agencies. The course also explores principles and procedures for basic dosage calculation and medication administration specific to medical assisting. Theory and practice of basic phlebotomy procedures and equipment. This course prepares students for the medical assisting national credential examination, and provides tools and strategies for gainful employment. | Prerequisites: MDC105. | | CLK | 174 | |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| MDC130 | 2023 Fall | Medical Assisting Practicum | | This course prepares and engages students in a practicum experience with an opportunity to apply both clinical and administrative skills and concepts which include the application of duties, procedures, and knowledge derived from program coursework. | Prerequisites: A grade of C or better in MDC106 or MDC120 with a P grade. Students are responsible to maintain the requirements of the background check, fingerprint clearance card, and health and safety documentation throughout the practicum experience. | Practicum hours are site-specific. The days of the week are Monday through Friday. The instructor will provide site assignment/location. | CLK | 200 | |
| MDL190 | 2015 Fall | Clinical Laboratory Operations | | Overview of laboratory services, laboratory professionals, and the role of a medical laboratory technician (clinical laboratory technician). Understanding of health care reform, reimbursement, cost analysis, coding, credentialing, accreditation, and regulatory agencies. Emphasis on process improvement, laboratory mathematics, statistics, documentation, medico-legal implications, education, management and personnel, and specimen integrity. Application of pre-analytical, analytical, and post-analytical principles, infection control, and laboratory safety. Recognition of acceptable quality control and quality management principles, phlebotomy principles, and lab equipment, glassware, labware, and water purification. Includes information systems and information management in laboratories. Importance of professional growth, communicating with the | Prerequisites: Acceptance into the Medical Laboratory Science program and permission of Program Director. | Occ | | LEC 2.0 2.0 2.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | patient and public, and ethical conduct. | | | | | |
| MDL240 | 2018 Fall | Clinical Urinalysis and Body Fluid Analysis | | Examines anatomy and physiology of the renal system, renal diseases, and renal function tests. Emphasis on interpretation, evaluation, and reporting of urinalysis and body fluid results, urine and body fluid collection techniques, types, specimen handling and preservation, and instrument calibration, maintenance, and quality control. Application of body fluid analyses, and chemical and microscopic analysis of urine. | Prerequisites: A grade of C or better in MDL190, acceptance into the Medical Laboratory Science program, and permission of the Program Director. | | Occ | L+L 3.0 5.0 5.0 | T |
| MDL241 | 2015 Fall | Practicum: Clinical Urinalysis and Body Fluid Analysis | | Practicum experience in clinical urinalysis and body fluid analysis based in healthcare facilities or reference laboratories. Assessment of anatomy and physiology of the renal system, renal diseases, and renal function tests. Performance of interpretation, evaluation, and reporting of urinalysis and body fluid results, urine and body fluid collection techniques, types, specimen handling and preservation, and instrument calibration, maintenance, and quality control. Performance of body fluid analyses and chemical and microscopic analysis of urine. | Prerequisites: A grade of C or better in MDL240, acceptance into the Medical Laboratory Science program, and permission of the Program Director. | | Occ | LAB 1.0 6.0 0.0 | C |
| MDL242 | 2018 Fall | Clinical Hematology and Hemostasis | | Examines the anatomy and physiology of the hematopoietic and hemostasis systems, hematology and hemostasis case studies, anemia categories, and thrombocyte, hemostatic, and | Prerequisites: A grade of C or better in MDL240, acceptance into the Medical Laboratory Science program, and | | Occ | L+L 6.0 9.0 9.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | malignant and nonmalignant leukocyte disorders. Emphasis on interpreting, evaluating, and reporting hematology and hemostasis results, anticoagulant therapy, morphology, peripheral smear correlation with analyzer results and patient condition, erythrocyte indices, collection techniques, specimen handling, calibration, and quality control. Methods of analysis on hematology and hemostasis analyzers, and preventive maintenance. | permission of the Program Director. | | | | |
| MDL243 | 2015 Fall | Practicum: Clinical Hematology and Hemostasis | | Practicum experience in clinical hematology and hemostasis based in healthcare facilities or reference laboratories. Assessment of the anatomy and physiology of the hematopoietic and hemostasis systems, hematology case studies, anemia categories, and thrombocyte, malignant and nonmalignant leukocyte disorders. Application of interpreting, evaluating, and reporting hematology results, morphology, peripheral smear correlation with analyzer results, erythrocyte indices, collection techniques, specimen handling, calibration, and quality control. Emphasis on hematology and hemostasis analyzers, and preventive maintenance. Perform hematology and hemostasis analyses. | Prerequisites: A grade of C or better in MDL242, acceptance into the Medical Laboratory Science program, and permission of the Program Director. | | Occ | LAB 1.0 6.0 0.0 | C |
| MDL244 | 2018 Fall | Clinical Immunohematology and Immunology | | Principles of immunity and immunologic testing. Causes of disorders of the immune system. Study of blood group | Prerequisites: A grade of C or better in MDL242, acceptance into the Medical | | | L+L 6.0 9.0 9.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | antigens, antibodies, and genetics. Understanding of donor blood collection, component preparation, and transfusion therapies. Performance of testing techniques and evaluation of data. | Laboratory Science program, and permission of the Program Director. | | | | |
| MDL245 | 2015 Fall | Practicum: Clinical Immunohematology and Immunology | | Practicum in immunohematology and immunology in healthcare facilities or reference laboratories. Performance of clinical skills in immunity and immunologic testing, testing for disorders of the immune system, blood group antigens, antibodies, and genetics. Observation of donor blood collection, component preparation, and transfusion therapies. Performance of testing techniques and evaluation of data. | Prerequisites: A grade of C or better in MDL244, acceptance into the Medical Laboratory Science program, and permission of the Program Director. | | Occ | LAB 1.0 6.0 0.0 | C |
| MDL246 | 2018 Fall | Clinical Microbiology | | Emphasis on microbial infectious and bioterrorism agents, classification, morphology, phenotyping, diseases, biotechnology and molecular technology, quality assurance and quality control, epidemiological significance, and regulatory standards. Application of antimicrobial, biochemical, and differential testing, drug resistance, selection, inoculation and incubation of culture media, isolation techniques, cell culture and viral detection tests, and macroscopic and microscopic evaluation. Emphasis on staining, rapid and commercial testing methods, safety precautions, specimen collection, handling, | Prerequisites: A grade of C or better in MDL244, acceptance into the Medical Laboratory Science program, and permission of the Program Director. | | Occ | L+L 6.0 9.0 9.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | storage, and disposal of biological material, pretreatment, decontamination, and concentration techniques, specimen type, source, and common microbial flora, specimen acceptability, and instrumentation. | | | | | |
| MDL247 | 2015 Fall | Practicum: Clinical Microbiology | | Practicum experience in clinical microbiology based in healthcare facilities or reference laboratories. Emphasis on microbial infectious and bioterrorism agents, classification, morphology, phenotyping, diseases, biotechnology and molecular technology, quality assurance and quality control, epidemiological significance, and regulatory standards. Application of antimicrobial, biochemical, and differential testing, drug resistance, selection, inoculation and incubation of culture media, isolation techniques, cell culture and viral detection tests, and macroscopic and microscopic evaluation. Procedures for staining, rapid and commercial testing methods, safety precautions, specimen collection, handling, storage, and disposal of biological material, pretreatment, decontamination, and concentration techniques, specimen type, source, and common microbial flora, specimen acceptability, and instrumentation. | Prerequisites: A grade of C or better in MDL246, acceptance into the Medical Laboratory Science program, and permission of the Program Director. | | Occ | LAB 1.0 9.0 0.0 | C |
| MDL248 | 2018 Fall | Clinical Chemistry | | Principles and procedures of clinical chemistry and testing | Prerequisites: A grade of C or better in | | | L+L 6.0 9.0 9.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | for diseases of protein, nonprotein nitrogen compounds, lipid, glucose, bilirubin, liver disease, cardiac and endocrine function, toxicology, therapeutic drug monitoring, acid base balance, electrolytes, and trace elements. Emphasis on quality assurance, quality control, mathematics and statistical analysis, specimen collection, and preanalytical processes. Study of immunoassays, nucleic acid probes, viral and tumor markers, automation of analytical techniques, spectrophotometry, genetic diseases and inborn errors of metabolism, and point-of-care testing. Use of reagents, equipment, supplies, and units of measure. | MDL246, acceptance into the Medical Laboratory Science program, and permission of the Program Director. | | | | |
| MDL249 | 2015 Fall | Practicum: Clinical Chemistry | | Practicum in clinical chemistry based in healthcare facilities or reference laboratories. Performance of clinical skills in clinical chemistry and testing for diseases of protein, nonprotein nitrogen compounds, lipid, glucose, bilirubin, liver disease, cardiac and endocrine function, toxicology, therapeutic drug monitoring, acid base balance, electrolytes, genetic diseases and inborn errors of metabolism, and trace elements. Application of quality assurance, quality control, mathematics and statistical analysis, specimen collection, and preanalytical processes. Performance of immunoassays, nucleic acid probes, viral and tumor | Prerequisites: A grade of C or better in MDL248, acceptance into the Medical Laboratory Science program, and permission of Program Director. | Occ | | LAB 1.0 9.0 0.0 | C |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | markers, automation of analytical techniques, spectrophotometry, and point-of-care testing. Use of reagents, equipment, supplies, and units of measure. | | | | | |
| MDL252 | 2018 Fall | Clinical Preparation I | | Examines clinical laboratory testing in a simulated laboratory environment. Emphasis on interpretation, evaluation, and reporting of a variety of laboratory results, and includes instrument calibration, maintenance, and quality control. | Prerequisites: A grade of C or better in MDL244, acceptance into the Medical Laboratory Science program, and permission of Program Director. | | | L+L 0.5 2.5 2.5 | T |
| MDL263 | 2018 Fall | Clinical Preparation II | | Continuation of examination of clinical laboratory testing in a simulated laboratory environment. Emphasis on interpretation, evaluation, and reporting of a variety of laboratory results, and includes instrument calibration, maintenance, and quality control. | Prerequisites: A grade of C or better in MDL248, acceptance into the Medical Laboratory Science program, and permission of Program Director. | Occ | | L+L 0.5 2.5 2.5 | T |
| MDL290 | 2015 Fall | Medical Laboratory Science Program Review | | Preparation for the professional practice national examinations. Topics include methodologies, techniques, and problem solving relative to urinalysis; body fluids, hematology, hemostasis, immunohematology, immunology, microbiology, and chemistry. Development of a professional practice resume, personalized test taking strategies and examination study plan. Maintenance of professional competency and lifelong learning and enhancing professional practice. | Prerequisites: A grade of C or better in (MDL247 and MDL249), acceptance into the Medical Laboratory Science program and permission of Program Director. | Occ<br><br>Occ | | LEC 2.0 2.0 2.0 | S |
| MDL291 | 2015 Fall | Medical Laboratory Science Program Capstone | | Preparation for the professional practice national | Prerequisites: A grade of C or better in | | | LEC 1.0 1.0 1.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | examinations. Topics include methodologies, techniques, and problem solving relative to urinalysis; body fluids, hematology, hemostasis, immunohematology, immunology, microbiology, and chemistry. Development of personalized test taking strategies and examination study plan. | (MDL247 and MDL249), acceptance into the Medical Laboratory Science program and permission of Program Director. | | | | |
| MDL295AA | 2011 Fall | Special Topics: Medical Laboratory Science | | Explores a special topic related to medical laboratory science. Topics vary and include concepts relevant to those advancing or pursuing careers in medical laboratory science. | Prerequisites: Permission of Program Director. | MDL295AA may be repeated for a total of three (3) credit hours. | Occ | L+L 1.0 2.0 1.7 | S |
| MDL295AB | 2011 Fall | Special Topics: Medical Laboratory Science | | Explores a special topic related to medical laboratory science. Topics vary and include concepts relevant to those advancing or pursuing careers in medical laboratory science. | Prerequisites: Permission of Program Director. | MDL295AB may be repeated for a total of six (6) credit hours. | Occ | L+L 2.0 3.0 2.7 | S |
| MDL295AC | 2018 Fall | Special Topics: Medical Laboratory Science | | Explores a special topic related to medical laboratory science. Topics vary and include concepts relevant to those advancing or pursuing careers in medical laboratory science. | Prerequisites: Permission of Program Director. | MDL295AC may be repeated for a total of six (6) credit hours. | Occ | L+L 3.0 4.0 4.0 | T |
| MEC101 | 2004 Spring | HVAC I: Principles and Trade Calculations | | Basic principles of heating, ventilating and air conditioning (HVAC). Trade calculations, algebraic and geometric equations, and scientific notation. Use and maintenance of HVAC trade tools. | Prerequisites: Registered apprentice status or permission of Apprenticeship Coordinator. | | Occ | LEC 5.0 5.0 5.0 | S |
| MEC103 | 2004 Spring | HVAC II: Piping, Soldering, Brazing and Electrical | | Application, preparation and joining of copper and plastic pipe. Soldering and brazing tools, materials, and procedures. Refrigeration cycle, furnace operation and | Prerequisites: Registered apprentice status or permission of Apprenticeship Coordinator. | | Occ | LEC 5.0 5.0 5.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | maintenance. Use of multimeter and manometer. Electricity, electrical circuits, and electrical components. Measurement of voltage, current, resistance and circuit continuity. Ohm's Law. | | | | | |
| MEC105 | 2003 Summer I | Residential and Industrial Plumbing I | | Plumbing practices, history, laws, codes, regulations and responsibility to the public. Usage and maintenance of hand and power tools. Workplace safety and Occupational Safety and Health Administration (OSHA) requirements. Application of basic plumbing calculations and principles of science as they relate to plumbing system installation and maintenance. Characteristics, advantages, disadvantages, and uses of pipe and tube. Fittings for cast-iron, glass, clay, concrete, copper, steel, plastic. Special materials and galvanic action. Piping connections | Prerequisites: Registered apprentice status or permission of the Apprenticeship Coordinator. | | Occ | LEC 5.0 5.0 5.0 | S |
| MEC106 | 2005 Spring | HVAC III: Systems | | Air distribution systems, measurement instruments and venting and sizing. Gas-fired equipment, furnaces, heating, ventilating, and air conditioning (HVAC) systems, and electric heating systems. Alternating current (AC) motors, circuit components and testing instruments. Maintenance, safety, troubleshooting, and service techniques. Job documentation and customer relations | Prerequisites: Registered apprentice status or permission of the Apprenticeship Coordinator. | | Occ | LEC 5.0 5.0 5.0 | S |
| MEC107 | 2003 Summer I | Residential and Industrial Plumbing II | | Application of advanced plumbing calculations to include percentages, | Prerequisites: A grade of C or better in MEC105. | | | LEC 5.0 5.0 5.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | conversions, fractions, decimals, square roots, circles, angles, measurement. First aid, personal safety, and Occupational Safety and Health Act (OSHA) guidelines. Materials handling, usage, advantages, and disadvantages. Fixtures I, II, III, fittings, accessories, and valves. Blueprint reading and freehand, finished, and detailed sketching | | | | | |
| MEC108 | 2004 Spring | Residential and Industrial Plumbing III | | Water piping materials. Sources and treatment of public, private, and individual water systems. Water distribution and supply systems. Cross-connection protection and pipe identification. Hot water heaters. Sanitary drainage systems. Plumbing calculations and blueprint reading. | Prerequisites: Registered apprentice status or permission of Apprenticeship Coordinator. | | Occ | LEC 5.0 5.0 5.0 | S |
| MEC118 | 2004 Fall | Residential and Industrial Plumbing IV | | Properties of water and plumbing traps. Air, air chamber, and sizing. High and low level pressure measurement. Manometer, gauge selection and use. Vibration, turbulence, and water hammer. Roof, floor and area drains. Oil and gas fuel systems. | Prerequisites: Registered apprentice status or permission of Apprenticeship Coordinator. | | Occ | LEC 5.0 5.0 5.0 | S |
| MEC119 | 2003 Spring | Basic Safety | ABC119 | Overview of safety rules and procedures for working on construction job sites | Prerequisites: Registered apprentice status or permission of the Apprenticeship Coordinator. | | Occ | LEC 1.0 1.0 1.0 | S |
| MEC120 | 2020 Fall | Basic Calculations for Construction | ABC120 PNT120 | Addition, subtraction, multiplication and division of whole, decimal, fraction and metric numbers. Percentage and fraction conversions. Metric units of length, weight, | Prerequisites: None. | | Occ | L+L 1.5 1.5 1.5 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | volume and temperature. Metric system as it relates to the construction trade. Basic algebra and geometry operations and equations. Area and volume calculations of shapes. | | | | | |
| MEC121 | 2014 Fall | Introduction to Hand and Power Tools | ABC121 PNT121 | Overview of the use, maintenance and safety procedures for common hand and power tools. | Prerequisites: Registered apprentice status or permission of the Apprenticeship Coordinator. | | Occ | LEC 1.0 1.0 1.0 | S |
| MEC122 | 2022 Fall | Rigging Safety and Equipment | ABC122 | Rigging safety, equipment and inspection. Includes crane hand signals, common rope knots, types of derricks and cranes and safety procedures for rigging and moving materials and equipment | Prerequisites: Registered apprentice status or permission of the Apprenticeship Coordinator. | | Occ | LEC 1.0 1.0 1.0 | S |
| MEC124 | 2021 Fall | HVAC IV: Equipment, Devices, Compressors and Pumps | | Heat transfer and human comfort. Humidifiers and humidity. Air filters and air filter friction loss. Metering devices and expansion valves. Thermal expansion valves. Compressors and heat pumps. Installation, adjustment, replacement, service, troubleshooting. Reverse-cycling. Leak detection, evacuation, recovery, and charging heating, ventilating, and air conditioning (HVAC) systems. Service equipment of HVAC systems. | Prerequisites: Registered apprentice status or permission of the Apprenticeship Coordinator. | | Occ | LEC 5.0 5.0 5.0 | S |
| MEC201 | 2023 Fall | HVAC V: Maintenance and Troubleshooting | | Tools, instruments, equipment, components, procedures, materials, and tasks for preventative maintenance and troubleshooting of heating, ventilating and air conditioning (HVAC) systems. Microprocessor, gas, electric, and oil heating systems. | Prerequisites: Registered apprentice status or permission of the Apprenticeship Coordinator. | | Occ | LEC 5.0 5.0 5.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Furnaces, electric heater packages for cooling, and heat pumps. | | | | | |
| MEC203 | 2023 Fall | HVAC VI: Troubleshooting Heating and Cooling Systems | | Cooling and heating systems; heat pumps, Heating, Ventilation and Air Conditioning (HVAC) systems and accessories. Commercial heating and cooling systems. Air and water balancing systems. Steam systems. Customer relations. | Prerequisites: Registered apprentice status or permission of the Apprenticeship Coordinator. | | Occ | LEC 5.0 5.0 5.0 | S |
| MEC205 | 2005 Spring | Residential and Industrial Plumbing V | | Gas and plumbing code requirements. Residential, commercial, industrial, institutional plumbing practices. Fixtures, appliances, fixture fittings, valves, and trim. Gas piping installation, pipe sizing, pipe fittings and connections, appliances, regulators, meters, controls, and corrosion. Advanced plumbing calculations. Specific plumbing systems and specialized water systems | Prerequisites: Registered apprentice status or permission of the Apprenticeship Coordinator. | | Occ | LEC 5.0 5.0 5.0 | S |
| MEC206 | 2023 Fall | HVAC VII: Air Quality and Energy Conservation | | Advanced blueprint reading. Architectural, plumbing, mechanical, and electrical drawings. Submittal, transfer and design. Indoor air quality. Heating, Ventilating and Air Conditioning (HVAC) equipment, components, accessories and systems. Introduction to computers and computer networks. Energy conservation and management. | Prerequisites: Registered apprentice status or permission of the Apprenticeship Coordinator. | | Occ | LEC 5.0 5.0 5.0 | S |
| MEC207 | 2005 Spring | Residential and Industrial Plumbing VI | | Advanced plumbing calculations. Offsets, tank capacities, volume and weight, rations and proportions, sizing, and piping expansion. Energy, | Prerequisites: Registered apprentice status or permission of the Apprenticeship Coordinator. | | Occ | LEC 5.0 5.0 5.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | temperature, heat transfer, stratification, multiple heaters, and recirculation. Basic electricity and troubleshooting. Safety, current, motors, circuits, humidity and condensation. Plumbing, electrical, heating/ventilation/air conditioning (HVAC), and detail blueprints. Specialized plumbing | | | | | |
| MEC208 | 2006 Spring | Residential and Industrial Plumbing VII | | General considerations, leaks and drainage. Installation, repair, and service of residential, commercial, industrial, and institutional heating systems. In-ground and above-ground water piping, drainage, waste and vent. Fuel gas piping, lead products, water heaters, waste stoppages, and water hammer. Blueprint reading. Installation of waste systems. Interceptors and backwater valves. Heating systems. Water protection, and conservation in heating systems | Prerequisites: Registered apprentice status or permission of the Apprenticeship Coordinator. | Occ | | LEC 5.0 5.0 5.0 | S |
| MEC218 | 2006 Fall | Residential and Industrial Plumbing VIII | | Hydraulic and plumbing theory. Pumps, uses, and design. Pump performance curves, pump installation, and maintenance. Advanced blueprint reading, sketching, and material estimating. Plumbing code. Installation code requirements. Specialty plumbing | Prerequisites: A grade of C or better in MEC208. | | | LEC 5.0 5.0 5.0 | S |
| MEC224 | 2023 Fall | HVAC VIII: Water Treatment and HVAC Design | | Water problems, remedies, maintenance, and treatment. Commercial water and steam systems. Inspection and evaluation. System start up and shutdown. Cooling | Prerequisites: Registered apprentice status or permission of the Apprenticeship Coordinator. | Occ | | LEC 5.0 5.0 5.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | towers; evaporative condensers, boilers, chillers, air handlers and forced air systems. Components, accessories and design factors. Refrigerants and oils. Load calculations. Commercial and industrial refrigeration. | | | | | |
| MFC101 | 2020 Fall 1 | Technical Documentation | | Analysis and interpretation of technical drawings (prints) common to manufacturing. Mathematical calculations for determining dimensions. Introduction and application of geometric dimensioning and tolerancing (GD&T). | Prerequisites: None. | | CLK | 81 | |
| MFC110 | 2020 Fall 1 | Inspection Techniques | | Set-up and use of inspection tools and equipment per current industry standards. Selection, completion and interpretation of information from inspection forms. | Prerequisites: None. | | CLK | 67 | |
| MFC111 | 2020 Fall 1 | Geometric Dimensioning and Tolerance (GDT) | | Controls of geometric dimensioning and tolerance (GDT) including the form, orientation, profile and location. Includes qualifying controls per engineering documentation for the American Society of Mechanical Engineers (ASME) Y14.5 2009 Standard. | Prerequisites: None. | | CLK | 102 | |
| MFC113 | 2020 Fall 1 | Coordinate Measuring Machines I | | Fundamentals and general aspects of coordinate measuring machines (CMM). Basic measuring techniques and operation, including conformance to geometric dimensioning and tolerancing requirements using both manual and programmable (automatic) coordinate measuring machines. | Prerequisites: None. | | CLK | 81 | |
| MFC120 | 2020 Fall 1 | Introduction to Manual Machining | | Introduces manual machining operations related to drilling, | Prerequisites: None. | | CLK | 157 | |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | grinding, sawing, milling, and lathe processes. Development of fundamental skills, practices and safety applications in working with manual machine tools, hand tools, and related equipment common to manufacturing. Provides theoretical and practical experiences related to the machining of various material types to produce a product to industry standards. | | | | | |
| MFC130 | 2020 Fall 1 | CNC Machine Operator | | Designed to provide a fast-track to fundamental knowledge and skills necessary for entry-level, machine operator positions. Introduction to print reading, inspection, and safe startup and operation of multi-axis computer numerical control (CNC) machines. Topics include two and three-axis program interpretation and application, qualifying tooling, and tool offsets to produce a product to industry standards. | Prerequisites: None. | | CLK | 150 | |
| MFC131 | 2020 Fall 1 | CNC Machining Level I | | Introduction to safe startup and operation of multi-axis computer numerical control (CNC) machines. Topics include two and three-axis program interpretation and application, qualifying tooling, and tool offsets to produce a product to industry standards. | Prerequisites: None. | | CLK | 203 | |
| MFC131DC | 2023 Fall | CNC Machining Level I | | Introduction to safe startup and operation of multi-axis computer numerical control (CNC) machines. Topics include two and three-axis program interpretation and application, qualifying tooling, and tool offsets to produce a product to industry standards. | Prerequisites: None. | | CLK | 216 | |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| MFC140 | 2020 Fall 1 | Manual CNC Programming | | Introduction to manual computer numerical control (CNC) programming of word address language (G&M code) for CNC machine tools. Multi-axis CNC programming for CNC controlled machines. Computer based tool path verification, CNC controller tool path verification and CNC machine tool program verification. | Prerequisites: None. | | CLK | 67 | |
| MFC140DC | 2023 Fall | Manual CNC Programming | | Introduction to manual computer numerical control (CNC) programming of word address language (G&M code) for CNC machine tools. Multi-axis CNC programming for CNC controlled machines. Computer based tool path verification, CNC controller tool path verification and CNC machine tool program verification. | Prerequisites: None. | | CLK | 67 | |
| MGT101 | 1996 Spring | Techniques of Supervision | | Overview of the foundations of supervision and how to get things done within an organization through other people. The functions of planning, organizing, staffing, motivating and controlling presented | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| MGT105 | 2016 Fall | Leadership for Citizenship | | Characteristics and types of leaders, responsibilities of leadership, and ethics of leadership as related to citizenship | Prerequisites: None. | | Occ | LEC 1.0 1.0 1.0 | S |
| MGT109 | 2018 Fall | Development of Professional Skills and Standards | | Explores the skills and qualities necessary to develop and maintain a successful professional life. Topics include management/leadership skill development, effective job search, image development, career advancement, gender | Prerequisites: None. | | Occ | L+L 3.0 3.0 3.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | issues, professional conduct, time/financial management, and human relations | | | | | |
| MGT126 | 2018 Fall | Customer Service Skills and Strategies | | Explores strategies to help improve job performance and develop a service-oriented philosophy. Uses practical training concepts and techniques to demonstrate how superior customer service can lead to competitive advantage and profitability in business. Focuses on both internal and external customers, interactions among people, processes, and systems within the organization and how to integrate these areas into a total quality delivery program | Prerequisites: None. | | Occ | L+L 3.0 3.0 3.0 | T |
| MGT147 | 2003 Fall | Supply Chain Management | | Supply chain management, including basic concepts and underlying principles of logistics and inventory management | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| MGT148 | 2018 Spring | Office Ethics and Culture | | Ethical issues and standards in the office; making ethical choices. Relationships and attitudes in the office. Office politics. | Prerequisites: None. | | Occ | LEC 2.0 2.0 2.0 | S |
| MGT157 | 2018 Fall | Introduction to Statistical Analysis of Clinical and Bioscience Data for Managers | | Introduction to basic concepts and applications of statistics, including data description, estimation probability as techniques for managing, collecting, summarizing and interpreting data. Includes the use of statistical computer software (e.g., SAS) used for the management, analysis and reporting of clinical and bioscience informatics data. | Prerequisites: None. | | Occ | L+L 3.0 5.0 5.0 | T |
| MGT160 | 2018 Fall | Project Management | | Examination of concepts and methodologies for effective project management. Project planning and management | Prerequisites: Permission of Department or Division. | | | L+L 3.0 3.0 3.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | from contract negotiations through project completion, including communications, human resources, management, and project scheduling as well as risk and financial management | | | | | |
| MGT175 | 1994 Fall | Business Organization and Management | | Covers basic principles of managing quality and performance in organizations. Covers management functions: planning, organizing, leading, and controlling. Emphasizes continual improvement, ethics, and social responsibility | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| MGT180 | 2015 Fall | Retail Management | | The role of management in retailing and retail performance. Challenges and processes of retail management across various institutions. | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| MGT227 | 2011 Spring | Training and Instructional Design for Health Information Technology | | Overview of learning management systems, instructional design software tools, teaching techniques and strategies, evaluation of learner competencies, maintenance of training records, and measurement of training program effectiveness. | Prerequisites: Permission of Program Director or Instructor. | | Occ | LEC 3.0 3.0 3.0 | S |
| MGT228 | 2011 Spring | Management, Planning, and Leadership for Health Information Technology | | Principles of leadership and effective management of teams for Health Information Technology. Emphasis on the leadership modes and styles best suited to IT deployment. Survey of health care and public health organization and delivery in the United States, with an emphasis on professional roles, legal, ethical, and regulatory issues, and payment systems. Analysis of health reform | Prerequisites: A grade of C or better in GBS110 or MGT251 or Corequisites: GBS110 or MGT251. | | Occ | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | initiatives in the U.S. Concept of "meaningful use" of electronic health records. | | | | | |
| MGT229 | 2014 Fall | Management and Leadership I | | Covers management concepts and applications for business, industry, and government organizations. | Prerequisites: None. | Course Attribute(s): General Education Designation: Social-Behavioral Sciences [SB] | Occ | LEC 3.0 3.0 3.0 | S |
| MGT230 | 2017 Spring | Management and Leadership II | | Includes practical applications of activities, issues, and problems related to current managerial and supervisory skills and talents. | Prerequisites: A grade of C or better in MGT229 or permission of Department or Division. | Course Attribute(s): General Education Designation: Social-Behavioral Sciences [SB] | Occ | LEC 3.0 3.0 3.0 | S |
| MGT242 | 2007 Summer I | Project Scope and Procurement Management | | Scope management and procurement management in a project environment, including how a project's scope is planned, defined, and verified. Concepts of scope change management. Concepts of procurement management, including procurement planning, supplier solicitation, supplier selection, contract administration, and contract closeout | Prerequisites: A grade of C or better in TQM240 or permission of Instructor. | | Occ | LEC 2.0 2.0 2.0 | S |
| MGT243 | 2007 Summer I | Project Time and Cost Management | | Time management and cost management in a project environment, including activity definition, sequencing and duration estimating. Schedule development and specific tools to support schedule creation and control. Project cost management including resource planning, cost estimation, cost budgeting, and cost control | Prerequisites: A grade of C or better in TQM240 or permission of Instructor. | | Occ | LEC 2.0 2.0 2.0 | S |
| MGT244 | 2007 Fall | Project Risk and Quality Management | | Risk management and quality management in a project environment, including risk identification, risk aversion, and risk response planning. Presents techniques to perform risk analysis and risk response planning on | Prerequisites: None. | | Occ | LEC 2.0 2.0 2.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | projects. Concepts of quality management including quality planning, quality assurance and quality control. Concepts of quality systems and their applicability to project management | | | | | |
| MGT245 | 2007 Fall | Project, Human Resources and Communications Management | | Concepts of human resource management and communications management in a project environment, including project organizational planning, staff acquisition and team development. Concepts of project communications planning, information distribution, performance reporting, and project closeout | Prerequisites: None. | | Occ | LEC 2.0 2.0 2.0 | S |
| MGT246 | 2007 Fall | Principles of Project Management | | Project Management principles expected of a Project Management Professional (PMP). Includes an overview of exam format, topics, and study techniques. Focus is on project scope, procurement, time, risk, cost, quality, human resource, communication, and integration management | Prerequisites: A grade of C or better in TQM240 or permission of Instructor. | | Occ | LEC 3.0 3.0 3.0 | S |
| MGT251 | 1994 Fall | Human Relations in Business | | Analysis of motivation, leadership, communications, and other human factors. Cultural differences that may create conflict and affect morale individually and within organizations. | Prerequisites: None. MGT101 or MGT175 or MGT229 suggested but not required. | | | LEC 3.0 3.0 3.0 | S |
| MGT253 | 1994 Fall | Owning and Operating a Small Business | | Starting, organizing, and operating a small business, including location, finance management processes, advertisement and promotion, credit, inventory control and ethics | Prerequisites: None. | Occ | Occ | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| MGT270AA | 2013 Spring | Management Internship | | Management work experience in a business or industry. 80 hours of designated work per credit. | Prerequisites: Permission of Department or Division. | MGT270AA may be repeated for a total of three (3) credit hours. | Occ | L+L 1.0 1.0 0.0 | C |
| MGT270AB | 2013 Spring | Management Internship | | Management work experience in a business or industry. 80 hours of designated work per credit. | Prerequisites: Permission of Department or Division. | MGT270AB may be repeated for a total of six (6) credit hours. | Occ | L+L 2.0 2.0 0.0 | C |
| MGT270AC | 2013 Spring | Management Internship | | Management work experience in a business or industry. 80 hours of designated work per credit. | Prerequisites: Permission of Department or Division. | MGT270AC may be repeated for a total of six (6) credit hours. | Occ | L+L 3.0 3.0 0.0 | C |
| MGT276 | 2022 Fall | Human Resources Management | | Human resource planning, staffing, training, compensating, and appraising employees in organizations. | Prerequisites: None. MGT101 or MGT175 or MGT229 suggested, but not required. | MGT101 or MGT175 or MGT229 suggested but not required. | Occ | LEC 3.0 3.0 3.0 | S |
| MGT277 | 1994 Fall | Labor Relations | | Covers the historical, legal, and environmental parameters surrounding current labor/management relations, including contract negotiations and grievance procedures. | Prerequisites: None. MGT101 or MGT175 or MGT229 suggested but not required. | | | LEC 3.0 3.0 3.0 | S |
| MGT286 | 1990 Summer I | Human Resource Employment Management | | Techniques and methodology for coordinating and monitoring effective employment selection practices. Includes description of employment functions, staffing analysis, employment recruitment and advertising, applicant screening, interviewing and reference checking, employee selection and placement within a human resources division | Prerequisites: A grade of C or better in MGT276 or permission of Department or Division. | Occ | | LEC 3.0 3.0 3.0 | S |
| MGT289 | 2008 Summer I | Professional in Human Resources Test Preparation | | Preparation for testing for Professional in Human Resources (PHR) certification. Includes responsibilities of the PHR in the development, implementation and management of budgets, workforce planning and employee training. Also covers compensation and | Prerequisites: None. | MGT289 is specifically intended to prepare students to sit for the PHR exam. Students are responsible for knowing the work-related requirements that the Human Resource Certification Institute (HRCI) has for all those who wish to take the certification exam. Occ | Occ | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | employee relations issues and responsibilities. | | | | | |
| MGT290 | 2022 Fall | Leadership Through Continuous Improvement: Leading Self | | This course focuses on creating a culture of continuous improvement, problem solving and Kaizen thinking. Upon completion of this course the student will be able to create and facilitate a Huddle Board Meeting, conduct Gemba Walks, implement principles of total systems thinking, conduct 5S organizing principles, and problem solving techniques. | Prerequisites: None. | | Occ | L+L 3.0 3.0 3.0 | T |
| MGT291 | 2022 Fall | Supervisor Essentials: Aspire to Lead | | This course will introduce students to the essential tools and resources needed to be an effective supervisor. Emphasis on the important role leaders play in the success of an organization through compliance training, knowledge of work culture, and demonstrating traits of effective leaders. | Prerequisites: None. | | Occ | L+L 3.0 3.0 3.0 | T |
| MGT292 | 2022 Fall | Employee Coaching and Development: Leading Others | | Upon completion of this course, students will be able to utilize leadership and coaching skills along with ADOT's development tools and resources to cultivate and improve employee skills and team development and reward success. | Prerequisites: None. | | Occ | L+L 3.0 3.0 3.0 | T |
| MGT293 | 2023 Fall | Collaborative Leadership: Leading Teams | | This course focuses on the framework for how to effectively hire the right people and create a positive, engaging, growth environment that promotes employee retention. Upon completion of this course the student will be able to utilize emotional intelligence and humble inquiry to improve | Prerequisites: None. | | Occ | L+L 3.0 3.0 3.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | accountability, performance, collegiality and morale among groups to build more effective and productive teams. | | | | | |
| MGT296WA | 2002 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor. | | Occ | LAB 1.0 5.0 0.0 | Z |
| MGT296WB | 2002 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor. | | Occ | LAB 2.0 10.0 0.0 | Z |
| MGT296WC | 2002 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a | | | LAB 3.0 15.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | COMMON COMPETENCY COURSE | position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor. | | | | |
| MGT298AA | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | Prerequisites: Permission of Program Director or Instructor. | | Occ | LAB 1.0 1.0 0.0 | Z |
| MGT298AB | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | Prerequisites: Permission of Program Director or Instructor. | | Occ | LAB 2.0 2.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| MGT298AC | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | Prerequisites: Permission of Program Director or Instructor. | | Occ | LAB 3.0 3.0 0.0 | Z |
| MHL130 | 2007 Summer I | Herstory: Women in Popular Music | | Overview of the contributions made by women in the evolution of popular music and its industry | Prerequisites: None. | | Acad | LEC 3.0 3.0 3.0 | S |
| MHL140 | 2013 Fall | Survey of Music History | | Study of composers, compositions, styles, and periods in music history. | Prerequisites: None. | Course Attribute(s): General Education Designation: Humanities, Arts and Design - [HU] | Acad | LEC 3.0 3.0 3.0 | S |
| MHL143 | 2001 Spring | Music in World Cultures | | Non-European musical traditions including the study of music in rituals, musical instruments and the impact of cultures on musical styles | Prerequisites: None. | Course Attribute(s): General Education Designation: Global Awareness - [G] General Education Designation: Humanities, Arts and Design - [HU] | Acad | LEC 3.0 3.0 3.0 | S |
| MHL145 | 2014 Spring | American Jazz and Popular Music | | The study of cultural and social contributions to the evolution of American jazz and popular music from the mid-1800's to present. | Prerequisites: None. | Course Attribute(s): General Education Designation: Cultural Diversity - [C] General Education Designation: Humanities, Arts and Design - [HU] | Acad | LEC 3.0 3.0 3.0 | S |
| MHL146 | 2021 Fall | Survey of Broadway Musicals | | Survey of Broadway musicals traced from their origins to the present viewed in their cultural, political, and socioeconomic contexts. Emphasis on stylistic periods, composers, lyricists, directors, and choreographers. | Prerequisites: None. | | Acad | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| MHL147 | 2007 Summer I | Music of African-American Cultures | | African-American music traced from its origin in Africa to the present. Includes spirituals, blues, gospel, jazz, and classical style. | Prerequisites: None. | | Acad | LEC 3.0 3.0 3.0 | S |
| MHL153 | 2014 Spring | Rock Music and Culture | | History of Rock music and how cultural, social, political, and economic conditions have shaped its evolution. | Prerequisites: None. | Course Attribute(s): General Education Designation: Historical Awareness - [H] General Education Designation: Humanities, Arts and Design - [HU] | Acad | LEC 3.0 3.0 3.0 | S |
| MHL155 | 2014 Spring | Survey of American Music | | History of the music of North America from the earliest American Indian music to the present. Introduction to the musical trends, composers, socioeconomic developments and trends, musical forms and styles that influence our modern American musical sense. | Prerequisites: None. | Course Attribute(s): General Education Designation: Cultural Diversity - [C] General Education Designation: Historical Awareness - [H] General Education Designation: Humanities, Arts and Design - [HU] | Acad | LEC 3.0 3.0 3.0 | S |
| MHL156 | 2021 Fall | Music in Latin America and the Caribbean | | To discuss the role of music in Latin and Caribbean cultures and the impact of these cultures on music. To present a historical survey to the evolution and development of musical styles from rumba to reggae. Among the topics, and to include: origins, gender, race, ethnicity, politics, elements of music, instruments, both sacred and secular music, and significant individuals influencing the evolution of many different genres of music in Latin America and Caribbean cultures. | Prerequisites: None. | | Acad | LEC 3.0 3.0 3.0 | S |
| MHL194 | 2023 Fall | Music and Culture | | Introduction to the study of multicultural music in its social, cultural, historical and economic contexts. Performance of music using percussion, rhythm, and the human body. Historical and | Prerequisites: A grade of C or better in MTC101 or a higher level MTC course; or Corequisites: MTC105 and MTC106 or permission of Instructor. | Course Attribute(s): General Education Designation: Global Awareness - [G] General Education Designation: Humanities, Arts and Design - [HU] | Acad | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | social aspects of global cultures' musical expressions. | | | | | |
| MHL204 | 2016 Fall | Hip-Hop Music and Culture | | A history of Hip-Hop's musical and artistic elements and how cultural, social, political, and economic conditions have shaped its evolution. | Prerequisites: A grade of C or better in ENG101, or ENG107, or permission of Instructor. | Course Attribute(s): General Education Designation: Literacy and Critical Inquiry - [L] General Education Designation: Cultural Diversity - [C] General Education Designation: Humanities, Arts and Design - [HU] | Acad | LEC 3.0 3.0 3.0 | S |
| MHL241 | 2011 Spring | Music History and Literature to 1750 | | In-depth study of music history from the primitive era through the Baroque period. | Prerequisites: A grade of C or better in MTC155 and MTC156 or Corequisites: MTC155 and MTC156 or permission of Instructor. | Course Attribute(s): General Education Designation: Humanities, Arts and Design - [HU] | Acad | LEC 3.0 3.0 3.0 | S |
| MHL242 | 2011 Spring | Music History and Literature 1750 to Present | | In-depth study of music history from the Classical period through the Contemporary period | Prerequisites: A grade of C or better in MHL241 or permission of Instructor. | Course Attribute(s): General Education Designation: Humanities, Arts and Design - [HU] | Acad | LEC 3.0 3.0 3.0 | S |
| MHL295 | 2013 Spring | Topics in Music | | Exploration of selected topics in music. Focuses on a theme, era, genre, concept, or critical approach. Analysis and interpretation of topic's representation, development, and significance in a variety subjects related to music humanities. Includes reading, listening analysis and interpretation of music and musical texts. | Prerequisites: A grade of C or better in ENG101, or ENG107, or permission of Instructor. | Course Attribute(s): General Education Designation: Humanities, Arts and Design - [HU] MHL295 may be repeated for a total of nine (9) credit hours. | Acad | LEC 3.0 3.0 3.0 | S |
| MHL298AA | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be | Prerequisites: Permission of Program Director or Instructor. | | Acad | LAB 1.0 1.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | combined to maximize student development. COMMON COMPETENCY COURSE | | | | | |
| MIC101 | 2021 Fall 1 | Fundamentals of Healthcare Interpreting | | This course introduces the field of interpreting, interpretation models, cognitive processes associated with interpretation, professional ethical standards, employment opportunities, bilingual customer service, and working conditions. Topics include pronunciation, medical vocabulary, resources, legal issues, code of ethics, standards of practice, certification, interpreter assessments/qualifications, and protocol associated with various settings. Upon completion, students should be able to interpret English/Spanish and Spanish/English simulated health care encounters, explain how to prepare for and manage an interpreted encounter, and apply ethical standards to a variety of working situations. | Prerequisites: 1. Successful completion of RDG100 or higher or appropriate reading placement into CRE101. 2. Receive a 'Pass' on the bilingual oral exam. | | CLK | 80 | |
| MIC103 | 2021 Fall 1 | Medical and Clinical Development | | Basic anatomy, physiology, and medical terminology in Spanish and English for health care settings. Emphasis on pronunciation of commonly used medical abbreviations for medical specialists and branches of medicine. Students will analyze, define, and correctly spell medical terms and abbreviations. Systems to be covered are: cardiovascular, respiratory, digestive, musculoskeletal, genitourinary, endocrine, | Prerequisites: MIC101 or SPA205 with a C or better, or with Program Manager approval. | CLK | | 80 | |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | immune, and nervous. Common test procedures for each system. Cancer and first response interpretation roles will also be covered. Students also participate in activities to prepare for clinical externships, taken by in-person simulation or in person at a clinical site. Students will review professional conduct, dress code, bilingual customer service, and downtime activities. | | | | | |
| MIC104 | 2021 Fall 1 | Medical Spanish/English Interpreting | | This course covers Spanish/English interpreting in a medical context and setting. The course introduces the field of interpreting, interpretation models, cognitive processes associated with interpretation, professional ethical standards, bilingual customer service and working conditions. Students will focus on pronunciations, medical terminology, resources, legal issues, code of ethics, standards of practice, certification requirements, interpreter assessments/qualifications and protocol associated with various settings. Students will also focus on review of professional conduct and first response interpretation. Upon completion, students should be able to interpret English/Spanish and Spanish/English simulated health care encounters, explain how to prepare for and manage an interpreted encounter, and apply ethical standards to a variety of | Prerequisites: Program admission. Successful completion of RDG100 or higher or appropriate reading placement into CRE101. Receive a 'Pass' on the bilingual oral exam. | | CLK | 80 | |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | settings. This course is designed and aligned with the purpose of preparing students to take the Certification Commission for Healthcare Interpreters (CCHI) certification exam and earn their CCHI certification. | | | | | |
| MIC105 | 2021 Fall 1 | Medical Interpreter: Professional Externship | | Practical training and application of healthcare interpreting under direct supervision of clinical or hospital preceptor. Students will train with staff interpreters or dual-role interpreters. Documentation of daily interpreter attendance logs and a satisfactory performance evaluation are required to successfully complete the externship. Students must meet the clinical facilities requirements prior to beginning. Externship hours will vary and students are expected to travel and have reliable transportation. | Prerequisites: 1. A grade of C or better in (MIC101 and MIC103), or (SPA205 and SPA206), or MIC104, or permission of Program Manager. 2. Background check requirements in compliance with the Maricopa County Community College District Supplemental Background Check Policy. 3. Students also must provide a copy of an Arizona Department of Public Safety Level One Fingerprint Clearance Card. Students must maintain current fingerprint clearance throughout the externship(s). 4. Complete and submit the Allied Health Student Health and Safety Documentation Checklist, with included documentation 5. Students are responsible to meet the requirements of the background check, fingerprint clearance card, and health and safety documentation. | Externship hours are site specific and may require attendance any day of the week, including during unscheduled days and times. Students must have reliable transportation. | CLK | 40 | |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| MIC106 | 2021 Fall 1 | Medical Interpreter: Simulated Clinical Practicum | | Practical training and application of healthcare interpreting through simulated clinical experiences. Students will conduct a total of 40 hours of simulated clinicals where they will interpret on behalf of the patient and healthcare staff. Students will receive daily performance evaluations and must successfully complete all competencies and attendance requirements to successfully complete this course. Students who are enrolled in the Medical Interpreter-Spanish program or the Spanish Interpreting for Healthcare Professionals program are required to either complete an externship at a clinical site or a simulated clinical interpreting experience as part of the certificate of competency as well as maintain eligibility for the national certification exam through the Commission of Certified Healthcare Interpreters (CCHI). | Prerequisites: A grade of C or better in (MIC101 and MIC103), or (SPA205 and SPA206), or MIC104, or permission of Program Manager. | Simulated clinical hours are campus location specific and conducted in a face-to-face or virtual modality. This may require attendance any day of the week, including evenings or weekends. | CLK | 40 | |
| MIS101 | 2017 Fall | Introduction to the United States Army | | Introduces the personal challenges and competencies that are critical for effective leadership and communication. Students learn how the personal development of life skills such as cultural understanding, goal setting, time management, stress management and comprehensive fitness relate to leadership, officership and the Army profession. Focuses on developing basic knowledge and | Prerequisites: None. | | Acad | LEC 4.0 3.0 0.0 LAB 0.0 2.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | comprehension of Army leadership dimensions, attributes and core leader competencies while gaining an understanding of the Army ROTC program, its purpose in the Army, and its advantages for the student. Includes physical training assessments, tactical training, as well as lecture-based instruction. | | | | | |
| MIS102 | 2018 Spring | Foundation of Agile and Adaptive Leadership | | Introduces the professional challenges and competencies that are needed for effective execution of the profession of arms and Army communication. Through this course, students learn how ethics and values shape the Army and the specific ways that these ethics are inculcated into Army culture. Explores the seven Army values and the warrior ethos, investigate the profession of arms and Army leadership as well as an overview of the Army, and gains practical experience using critical communication skills. Includes physical training assessments, tactical training, as well as lecture-based instruction. | Prerequisites: A grade of C or better in MIS101. | Acad | | LEC 4.0 3.0 0.0 LAB 0.0 2.0 0.0 | Z |
| MIS201 | 2017 Fall | Army Leadership and Decision Making | | Academically challenging course where students study, practice and apply the fundamentals of Army leadership, officership, Army values and ethics, personal development and small-unit tactics at the platoon level. Requires the student to demonstrate writing skills and present information briefings as preparation for development in becoming a | Prerequisites: A grade of C or better in MIS101 and MIS102. | | | LEC 4.0 3.0 0.0 LAB 0.0 2.0 0.0 | Z |



Acad

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | successful future officer. Includes reading assignments, homework assignments, small group assignments, briefings, case studies, practical exercises, a mid-term exam and final exam. Also includes physical training assessments, tactical training, as well as lecture-based instruction. | | | | | |
| MIS202 | 2018 Spring | Army Doctrine and Team Development | | Academically challenging course where students study, practice and apply the fundamentals of the leadership, officer skills, Army values and ethics, personal development and tactics at the small-unit level. Focuses on cross-cultural competencies as they relate to Army doctrine and how they apply in a combatant commander's engagement strategies. Stresses Army values, teamwork and warrior ethos and their relationship to the law of land warfare and philosophy of military service. Covers the ability to lead and follow through team building exercises in small units up to squad level. Requires the student to demonstrate writing skills and present information briefings as preparation for development in becoming a successful future officer. Also includes physical training assessment, tactical training, as well as lecture-based instruction. | Prerequisites: A grade of C or better in MIS101, MIS102 and MIS201. | Acad | | LEC 4.0 3.0 0.0 LAB 0.0 2.0 0.0 | Z |
| MIT106 | 2018 Fall | Industrial Safety | GTC106 OSH106 | Safety, health management, and accident prevention in industrial work environment. Role of Occupational Safety and Health Administration | Prerequisites: None. | | Occ | LEC 2.0 2.0 2.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | (OSHA) act, materials handling, electrical safety, machine safety, first response to fire and medical emergencies, safety signs and color codes, recognition of safety and health hazards accident prevention, management responsibilities, and OSHA 10 certification. | | | | | |
| MIT112 | 2017 Spring | Natural Gas Pipeline Operations | | Introduction to the fundamentals of the natural gas pipeline operations. Includes topics such as damage prevention, emergency response, valve operation, and testing of facilities. This course prepares students for the Non-Joiner Operator Qualification in the natural gas pipeline industry. | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| MIT113 | 2019 Spring | Natural Gas Pipe Joiner | | Principles and practices of plastic pipe joining in the natural gas industry. Includes pipe joining techniques such as solvent cements, heat fusions, mechanical saddle fittings, and compression couplings. This course prepares students for Pipe Joiner Qualification in the natural gas industry. | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| MIT120 | 2019 Fall | Industrial Technology Fundamentals | | Theories and concepts in industrial technology basics and OSHA 10 certification. Introductory concepts in industrial math, hand and power tools, technical drawings, rigging, and materials handling. Emphasis on communication and employability skills. Included labs emphasize and anchor the course material. Safety and management expectations. Defense in | Prerequisites: None. | | Occ | L+L 3.0 5.0 5.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | depth strategy and conduct of verifications. Maintenance procedures. Work control process. Performance of work standards and documentation including pre-job preparation, pre-job notification, job review, job verification and job close out specific to nuclear power plant operations. | | | | | |
| MIT121 | 2018 Fall | Industrial Technology I-A | | Principles of Industrial Maintenance Technology. Modules include theory and applications in tools of the trade, fasteners and anchors, oxyfuel cutting, gaskets and packing, technical mathematics, and technical drawings. Included labs emphasize and anchor the course material. | Prerequisites: A grade of C or better in MIT120 or Corequisites: MIT120 or permission of Instructor. | | Occ | L+L 3.0 5.0 5.0 | T |
| MIT122 | 2018 Fall | Industrial Technology I-B | | Principles of Industrial Maintenance Technology. Modules include theory and applications in pumps and valves, test instruments, rigging, mobile and support equipment, and lubrication. Included labs emphasize and anchor the course material. | Prerequisites: A grade of C or better in MIT120 or Corequisites: MIT120 or permission of Instructor. | | Occ | L+L 3.0 5.0 5.0 | T |
| MIT123 | 2018 Fall | Industrial Mechanical Technology II-A | | Basic layout, introduction to piping components, copper and plastic piping practices, introduction to ferrous metal piping practices, identifying, installing and maintaining valves, hydrostatic and pneumatic testing, introduction to bearings, and low-pressure steam systems. Included labs emphasize and anchor the course material. | Prerequisites: A grade of C or better in MIT122 or permission of Instructor. | | Occ | L+L 3.0 5.0 5.0 | T |
| MIT124 | 2018 Fall | Industrial Mechanical Technology II-B | | High pressure steam systems and auxiliaries, distillation towers and vessels, heaters, furnaces, heat exchangers, | Prerequisites: A grade of C or better in MIT122 or permission of Instructor. | | Occ | L+L 3.0 5.0 5.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | cooling towers, fin fans, and introduction to tube work. Included labs emphasize and anchor the course material. | | | | | |
| MIT133 | 2018 Fall | Industrial Electrical and Instrumentation Technology II-A | | Industrial safety for E and I technicians, introduction to the National Electrical Code, electrical theory, alternating current, electrical and instrumentation test equipment, flow, pressure, level, and temperature. Included labs emphasize and anchor the course material. | Prerequisites: A grade of C or better in MIT122 or permission of Instructor. | | | L+L 3.0 5.0 5.0 | T |
| MIT134 | 2018 Fall | Industrial Electrical and Instrumentation Technology II-B | | Process mathematics, hand bending, tubing, clean, purge, and test tubing and piping systems, instrument drawings and documents, conductors and cables, and conductor terminations and splices. Included labs emphasize and anchor the course material. | Prerequisites: A grade of C or better in MIT122 or permission of Instructor. | Occ | | L+L 3.0 5.0 5.0 | T |
| MIT209 | 2018 Fall | Automated Manufacturing | GTC209 | Evolution of automation in manufacturing from fixed (hard) automation to Computer Integrated Manufacturing (CIM) is presented with numerical control (NC) ; computer-aided design/computer-aided manufacturing (CAD/CAM); automated material handling; automation communication protocol. Manufacturing management strategies include statistical process control (SPC); material requirements planning (MRP); manufacturing resource planning (MRPII); and just-in-time (JIT). Hands-on experience with programmable logic controllers (PLC) and robotics included | Prerequisites: A grade of C or better in ELT131 or ELE131 or GTC/MET206 or equivalent. | Occ<br>Occ | | L+L 3.0 6.0 6.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| MKT101 | 1994 Fall | Introduction to Public Relations | | Emphasizes public relations techniques used both within and outside the business organization, including operation of a PR counseling firm | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| MKT109 | 2017 Fall | Introduction to Fashion Merchandising | TEC109 | Explores the various levels and specialized segment of the fashion industry, the principles of fashion, the fundamentals of merchandising apparel, consumers' influence on demand and marketing activities. | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| MKT110 | 2012 Summer I | Marketing and Social Networking | | Theory and practice in the use of social media in marketing. Topics may include a history of social media, preparation for social marketing, the power of collective influence, and how to engage with social media. Reviews social mediums, social networks, platforms and other marketing tools used to create a social media campaigns. | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| MKT111 | 2018 Fall | Applied Marketing and Social Networking | | Examination of the strategic use of digital and social media marketing platforms and tools for global communication and networking, including analysis of various digital and social media platforms and tools for developing brands, creating professional networks and creating engaging content. Hands-on use of social media platforms and tools to conduct research, develop strategies for creating, integrating, and evaluating social media marketing campaigns, and development of metrics to measure effectiveness. | Prerequisites: A grade of C or better in MKT110. | | Occ | L+L 3.0 4.0 4.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| MKT112 | 1996 Fall | Retail Customer Service | | Introduction to the field of retail sales. Emphasis on customer service and sales techniques | Prerequisites: None. | | Occ | LEC 1.0 1.0 1.0 | S |
| MKT114 | 1996 Fall | Retail Inventory Control | | Retail inventory control procedures. Emphasis on the role of the professional sales associate within a retail company and in the handling of merchandise | Prerequisites: A grade of C or better in MKT112. | | Occ | LEC 1.0 1.0 1.0 | S |
| MKT151 | 2018 Fall | Display and Visual Merchandising | TEC151 | An examination of the principles of design including line, color, balance, and texture as they relate to the display of merchandise. Participation in displays, field trips, and individual projects | Prerequisites: None. | | Occ | L+L 3.0 4.0 4.0 | T |
| MKT200 | 2005 Spring | Retail Buying | TEC200 | Examines management/buyer role in investment, pricing, planning, controlling sales and inventories Any BPC/CIS spreadsheet course recommended. | Prerequisites: None. A grade of C or better in any BPC/CIS spreadsheet course recommended. | | | LEC 3.0 3.0 3.0 | S |
| MKT263 | 1995 Fall | Advertising Principles | | Introduces the advertising function within business, including media study, creative strategies, and advertising campaigns MKT271 suggested, but not required. | Prerequisites: None. MKT271 suggested but not required. | | | LEC 3.0 3.0 3.0 | S |
| MKT267 | 2018 Fall | Principles of Sales | | Analyzes and applies the steps and techniques used in personal selling. Highlights the role of the professional sales representative and his/her functions as they relate to the company's mission and customer expectations. | Prerequisites: None. | Occ<br><br><br><br>Occ | Occ | LEC 3.0 3.0 3.0 | S |
| MKT268 | 1991 Fall | Merchandising | | Surveys structure and operation of retail organizations. Emphasizes merchandising to include price, location, time promotion and quantity. | Prerequisites: None. MKT271 suggested but not required. | | | LEC 3.0 3.0 3.0 | S |
| MKT271 | 1994 Fall | Principles of Marketing | | An analysis of the marketing process and environment with | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | regard to the product, pricing, distribution, and communication in order to satisfy buyer needs | | | | | |
| MKT273 | 2004 Spring | Marketing Research | | Planning and preparing for a marketing research effort and presentation of research findings in a professional manner. Includes the study of problem definition, sampling methods, statistical analysis, presentation techniques, and evaluation of data | Prerequisites: A grade of C or better in MKT271 or permission of Instructor. | | Occ | LEC 3.0 3.0 3.0 | S |
| MKT274AC | 2001 Fall | Fashion Merchandising Study Tour | TEC274AC | A tour of the fashion merchandising industry outside the metropolitan Phoenix area. Includes a variety of experiences and activities to enhance awareness of this multifaceted career | Prerequisites: Permission of Department or Division. | | | LAB 3.0 15.0 3.0 | F |
| MKT277 | 2018 Fall | Advanced Sales | | Advanced selling and communication techniques. | Prerequisites: A grade of C or better in MKT267 or permission of Department or Division. | | | LEC 3.0 3.0 3.0 | S |
| MKT280AA | 2016 Spring | Marketing Internship | | Marketing work experience in a business or industry. 80 hours of designated work per credit. | Prerequisites: Permission of Department or Division. | MKT280AA may be repeated for a total of four (4) credits. | Occ | L+L 1.0 1.0 0.0 | C |
| MKT280AB | 2016 Spring | Marketing Internship | | Marketing work experience in a business or industry. 80 hours of designated work per credit. | Prerequisites: Permission of Department or Division. | MKT280AB may be repeated for a total of four (4) credits. | Occ | L+L 2.0 2.0 0.0 | C |
| MKT280AC | 2016 Spring | Marketing Internship | | Marketing work experience in a business or industry. 80 hours of designated work per credit. | Prerequisites: Permission of Department or Division. | MKT280AC may be repeated for a total of six (6) credits. | Occ | L+L 3.0 3.0 0.0 | C |
| MKT296WA | 2002 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or | | Occ | LAB 1.0 5.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor. | | | | |
| MKT296WB | 2002 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor. | | Occ | LAB 2.0 10.0 0.0 | Z |
| MKT296WC | 2002 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor. | | Occ | LAB 3.0 15.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| MKT296WD | 2002 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor. | | Occ | LAB 4.0 20.0 0.0 | Z |
| MKT298AA | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | Prerequisites: Permission of Program Director or Instructor. | | Occ | LAB 1.0 1.0 0.0 | Z |
| MKT298AB | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and | Prerequisites: Permission of Program Director or Instructor. | | Occ | LAB 2.0 2.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | | | | | |
| MKT298AC | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | Prerequisites: Permission of Program Director or Instructor. | | Occ | LAB 3.0 3.0 0.0 | Z |
| MMT184 | 2023 Fall | Digital Animation I | AVC184 | The art of animation (animated sequences, special effects, titles, etc.) using the computer. Construction characters, background graphics, color, scaling, storyboard, cells, timing, editing, and surface rendering. Screening and discussion of selected animated short films and videos. | Prerequisites: A grade of C or better in (ART111 or ART116) or permission of Instructor. Corequisites: AVC100 or permission of Instructor. | | Occ | L+L 3.0 6.0 6.0 | T |
| MMT185 | 2023 Fall | 3D Modeling and Animation I | AVC185 | Basic concepts of 3D modeling. Anatomy of computer geometry; basic elements that make computer models-curves, surfaces, non-uniform rational basis spline (NURBS), and polygons. 3D translation, shading, materials, and rendering. | A grade of C or better required in all Prerequisites. Prerequisites or Corequisites: AVC100 or permission of Instructor. | | Occ | L+L 3.0 6.0 6.0 | T |
| MMT186 | 2018 Fall | Modeling for Digital Media | | Development of 3-D models for multimedia productions. 3-D logos, objects, and advanced animation projects using special effects. | Prerequisites: A grade of C or better in ADA/ART/MMT184 or permission of Instructor. | | Occ | L+L 3.0 6.0 6.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| MMT190 | 2023 Fall | Art of Web Site Design | AVC190 | Introduction to design production for websites. Layout, typography and presentation style for HTML (Hyper Text Markup Language). Design of mock-ups using digital design software to produce artistic form and content for the Web using Hyper Text Markup Language (HTML), digital text, and graphics. Discussion of color, proportion, typography and Web-specific design principles. Emphasizes design of cross-browser compatible interfaces that optimize usability, accessibility and browser interoperability. | Prerequisites: A grade of C or better in AVC100, or permission of Instructor. CIS133DA recommended. | Occ | | L+L 3.0 6.0 6.0 | T |
| MMT216 | 2018 Fall | Multimedia Project Management | | Interactive video and multimedia project management including defining, analyzing, designing, and validating interactive/multimedia applications; building and managing development and production teams; planning, budgeting, and scheduling; interactive/multimedia authoring; project implementation; and writing RFPs (Request For Proposal). | Prerequisites: None. | | Occ | L+L 3.0 6.0 6.0 | T |
| MMT285 | 2023 Fall | 3D Modeling and Animation II | AVC285 | Advanced techniques for 3D modeling and computer animation. Creating and applying 2D background and 3D model textures, creating and applying special effects to models and animation, designing, modeling, and animating a digital 3D character from a character study. | Prerequisites: A grade of C or better in AVC/MMT185. | | | L+L 3.0 6.0 6.0 | T |



Occ

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| MMT298AA | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | Prerequisites: Permission of Program Director or Instructor. | | Occ | LAB 1.0 1.0 0.0 | Z |
| MMT298AB | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | Prerequisites: Permission of Program Director or Instructor. | | Occ | LAB 2.0 2.0 0.0 | Z |
| MMT298AC | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student | Prerequisites: Permission of Program Director or Instructor. | | Occ | LAB 3.0 3.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | development. COMMON COMPETENCY COURSE | | | | | |
| MNT110 | 2022 Fall | Nanotechnology: What It Is and Why It Matters | | Designed to provide students with a strong fundamental understanding of the scientific principles, processing, and applications of nanotechnology. Includes the concepts of chemical bonding, quantum mechanics, and microstructure applied to various nanomaterials and their use in electronic devices, composites, computing, and various other biological, medical, energy-related, and current consumer applications. Introduces analytical techniques used in nanotechnology, as well as possible societal applications. | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| MNT120 | 2022 Fall | Introduction to Microelectromechanical Systems (MEMS) | | Overview of fundamentals of the scientific principles, processing, and applications of microelectromechanical systems (MEMS). Covers topics in applications, fabrication methods, characterization, and commercialization concepts as well includes surface micromachining, patterning, etching and deposition processes in addition to cleanroom protocol and safety. Also covers research and documentation types and applications. | Prerequisites: None. | | Occ | L+L 3.0 4.0 4.0 | T |
| MNT130 | 2022 Fall | Introduction to Light and Lasers | | Introduces the fundamentals of light, optics, and lasers. Covers the nature and properties of light (such as energy, amplitude, wavelength, frequency, period, phase, propagation). Addresses geometrical optics | Prerequisites: A grade of C or better in MAT114, or MAT115, or MAT12+, or MAT15+ or higher, OR an appropriate district placement for MAT15+ or higher, OR | | | L+L 4.0 6.0 6.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | (reflection, diffraction, imaging, thin lens formula, lens maker's equation), wave optics (interference, diffraction, polarization), and the basic principles and practical applications of lasers. Covers optical handling and positioning, light sources, laser classifications and safety. Contributes to knowledge and skills required for the Photonics Technician Operator certification exam. | permission of Instructor or Department/Division Chair. | | | | |
| MNT140 | 2022 Fall | Careers and Professional Skills in Nanotechnology | | Introduction to professional skills unique to the field of nanotechnology fabrication. Emphasis on teamwork, problem solving, cultural diversity in the workplace, communication, and continuous professional development. | Prerequisites: None. | | Occ | LEC 1.0 1.0 1.0 | S |
| MNT201 | 2022 Fall | Materials, Safety, and Equipment for Nanotechnology | | Safety procedures and equipment used in the micro and nanotechnology industries. Covers chemical, biological, and energy safety protocol as well as infrastructure facilities and systems. Also includes an overview of the structural, chemical, and physical classification of materials. | Prerequisites: None. | | Occ | L+L 3.0 4.0 4.0 | T |
| MNT210 | 2018 Fall | Basic Nanotechnology Processes | | Introduction to basic nanotechnology processes and a comparison of top-down and bottom-up manufacturing processes. Covers characteristics of plasma and its application to additive and subtractive processes. Also includes basic pattern transfer processes, laser ablation, and chemical and physical vapor deposition. | Prerequisites: None. | | Occ | L+L 3.0 4.0 4.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| MNT215 | 2022 Fall | Micro and Nano Fabrication Tools and Techniques | | Introduction to basic micro and nanotechnology tools and processes and a comparison of top-down and bottom-up manufacturing processes. Covers characteristics of plasma and its application to additive and subtractive processes. Also includes basic pattern transfer processes, laser ablation, and chemical and physical vapor deposition. Aligned with materials, synthesis, and processing standards recognized by ASTM International. | Prerequisites: None. | | Occ | L+L 3.0 4.0 4.0 | T |
| MNT220 | 2018 Fall | Materials in Nanotechnology | | Examination of material used in the field of nanotechnology. Covers colloids, nanoparticles, oxides, and quantum dots in addition to self-assembly applications. Also includes biocompatibility and the dry etch material fabrication process. | Prerequisites: None. | | Occ | L+L 3.0 4.0 4.0 | T |
| MNT225 | 2022 Fall | Material Properties and Effects of Size | | Examination of materials used in the field of nanotechnology. Covers nanoparticles, oxides, and dielectric materials selection and modification. Also includes biocompatibility and applications for macroscale surfaces and interfaces. | Prerequisites: A grade of C or better in MNT201 or permission of Instructor. | MNT225 aligns with the Standard Guide for Nanotechnology Workforce Education in Materials Properties and Effects of Size established by ASTM International. | Occ | L+L 3.0 4.0 4.0 | T |
| MNT230 | 2018 Fall | Patterning for Nanotechnology | | Overview of patterning processes in nanotechnology. Includes photolithography techniques, technology, and tools. Covers photoresist applications and unique lithography techniques, including block polymer patterning. | Prerequisites: None. | | Occ | L+L 3.0 4.0 4.0 | T |
| MNT235 | 2022 Fall | Nanotechnology Characterization Tools and Techniques | | Overview of characterization tools and techniques for | Prerequisites: A grade of C or better in | | | L+L 3.0 4.0 4.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | nanotechnology structures and materials. Includes procedures for light, physical, and electron beam characterization. Also includes tools and processes for advanced Scanning Probe Microscopy (SPM) and surface analysis. Aligns with ASTM Nano-Characterization standards and its exam. Additional applications enable students to prepare for certification examinations. | MNT201 or permission of Instructor. | | | | |
| MNT240 | 2018 Fall | Nanotechnology Applications | | An introduction to the practical application of emerging technologies in nanoscience. Includes applications for health sciences, energy, manufacturing, electronics, the food industry, and the environment. | Prerequisites: None. | | Occ | L+L 3.0 4.0 4.0 | T |
| MNT245 | 2023 Fall | Advanced Topics in Light and Lasers | | Advanced principles and applications of light and lasers. Addresses Photonic Integrated Circuits (PIC) concepts, materials, fabrication technologies, and applications. Describes silicon PIC and III-V semiconductor devices in addition to completion of applicable calculations. Addresses lasers and PICs in diverse applications in telecommunications, data servers, health and medical, and other fields. | Prerequisites: A grade of C or better in MNT130, or OPT105, or permission of Instructor. MAT182 is recommended but not required. | Occ | | L+L 3.0 4.0 4.0 | T |
| MNT250 | 2018 Fall | Characterization of Nanotechnology Structures and Materials | | Overview of characterization tools and techniques for nanotechnology structures and materials. Includes in-situ and ex-situ characterization as well as procedures for light, physical and electron beam characterization. Also includes | Prerequisites: None. | | Occ | L+L 3.0 4.0 4.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | tools and processes for advanced Scanning Probe Microscopy (SPM) and surface analysis. | | | | | |
| MPT101 | 2020 Fall | Technical Documentation | | Analysis and interpretation of technical drawings (prints) common to manufacturing. Mathematical calculations for determining dimensions. Introduction and application of Geometric Dimensioning and Tolerancing (GD&T). | Prerequisites: None. | | Occ | L+L 3.0 5.0 5.0 | T |
| MPT101MP | 2020 Fall | Technical Documentation | | Analysis and interpretation of technical drawings (prints) common to manufacturing. Mathematical calculations for determining dimensions. Introduction and application of Geometric Dimensioning and Tolerancing (GD&T). | Prerequisites: None. | | Occ | LEC 3.0 1.0 1.0 LAB 0.0 4.0 4.0 | T |
| MPT110 | 2020 Fall | Inspection Techniques | | Setup and use of inspection tools and equipment per current industry standards. Selection, completion and interpretation of information from inspection forms. | Prerequisites: None. | | Occ | L+L 3.0 5.0 5.0 | T |
| MPT110MP | 2020 Fall | Inspection Techniques | | Setup and use of inspection tools and equipment per current industry standards. Selection, completion and interpretation of information from inspection forms. | Prerequisites: None. | | Occ | LEC 3.0 1.0 1.0 LAB 0.0 4.0 4.0 | T |
| MPT111 | 2023 Fall | Geometric Dimensioning and Tolerance (GDT) | | Controls of geometric dimensioning and tolerance (GDT) including the form, orientation, profile and location. Includes qualifying controls per engineering documentation for the American Society of Mechanical Engineers (ASME) Y14.5 2009 Standard. | Prerequisites: None. | | Occ | L+L 3.0 5.0 5.0 | T |
| MPT111MP | 2023 Fall | Geometric Dimensioning and Tolerance (GDT) | | Controls of geometric dimensioning and tolerance (GDT) including the form, orientation, profile and | Prerequisites: None. | | Occ | LEC 3.0 1.0 1.0 LAB 0.0 4.0 4.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | location. Includes qualifying controls per engineering documentation for the American Society of Mechanical Engineers (ASME) Y14.5 2009 Standard. | | | | | |
| MPT113 | 2023 Fall | Coordinate Measuring Machines I | | Fundamentals and general aspects of Coordinate Measuring Machines (CMM). Basic measuring techniques and operation, including conformance to geometric dimensioning and tolerancing requirements using both manual and programmable (automatic) coordinate measuring machines. | Prerequisites: A grade of C or better in (MPT101 or MPT101MP) and (MPT110 or MPT110MP), or permission of Program Director. | | | L+L 3.0 4.0 4.0 | T |
| MPT120 | 2023 Fall | Introduction to Manual Machining | | Introduces manual machining operations related to drilling, grinding, sawing, milling, and lathe processes. Development of fundamental skills, practices and safety applications in working with manual machine tools, hand tools, and related equipment common to manufacturing. Provides theoretical and practical experiences related to the machining of various material types to produce a product to industry standards. | A grade of C or better required in all Prerequisites. Prerequisites or Corequisites: (MPT101 or MPT101MP) and (MPT111 or MPT111MP), or permission of Program Director. | Occ<br><br>Occ | | L+L 4.0 6.0 6.0 | T |
| MPT120MP | 2023 Fall | Introduction to Manual Machining | | Introduces manual machining operations related to drilling, grinding, sawing, milling, and lathe processes. Development of fundamental skills, practices and safety applications in working with manual machine tools, hand tools, and related equipment common to manufacturing. Provides theoretical and practical experiences related to the machining of various | A grade of C or better required in all Prerequisites. Prerequisites or Corequisites: (MPT101 or MPT101MP) and (MPT111 or MPT111MP), or permission of Program Director. | | | LEC 4.0 2.0 2.0 LAB 0.0 4.0 4.0 | T |

Occ

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | material types to produce a product to industry standards. | | | | | |
| MPT130 | 2020 Fall | CNC Machine Operator | | Designed to provide a fast track to fundamental knowledge and skills necessary for entry-level machine operator positions. Introduction to print reading, inspection, and safe start-up and operation of multi-axis Computer Numerical Control (CNC) machines. Topics include two- and three-axis program interpretation and application, qualifying tooling, and tool offsets to produce a product to industry standards. | Prerequisites: None. | | Occ | L+L 6.0 10.0 10.0 | T |
| MPT130MP | 2020 Fall | CNC Machine Operator | | Designed to provide a fast track to fundamental knowledge and skills necessary for entry-level machine operator positions. Introduction to print reading, inspection, and safe start-up and operation of multi-axis Computer Numerical Control (CNC) machines. Topics include two- and three-axis program interpretation and application, qualifying tooling, and tool offsets to produce a product to industry standards. | Prerequisites: None. | | Occ | LEC 6.0 3.0 3.0 LAB 0.0 7.0 7.0 | T |
| MPT131 | 2023 Fall | CNC Machining Level I | | Introduction to safe start-up and operation of multi-axis Computer Numerical Control (CNC) machines. Topics include two- and three-axis program interpretation and application, qualifying tooling, and tool offsets to produce a product to industry standards. | Prerequisites: A grade of C or better in MPT120 or MPT120MP or permission of Program Director. | | Occ | L+L 6.0 10.0 10.0 | T |
| MPT131MP | 2023 Fall | CNC Machining Level I | | Introduction to safe start-up and operation of multi-axis Computer Numerical Control (CNC) machines. Topics include two- and three-axis | Prerequisites: A grade of C or better in MPT120 or MPT120MP or permission of Program Director. | | | LEC 6.0 3.0 3.0 LAB 0.0 7.0 7.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | program interpretation and application, qualifying tooling, and tool offsets to produce a product to industry standards. | | | | | |
| MPT132 | 2023 Fall | CNC Machining Level II | | Safe setup and operation of multi-axis Computer Numerical Control (CNC) machines. Topics include multi-axis programming, qualifying tooling, and tool offsets to produce a product to industry standards. | Prerequisites: A grade of C or better in MPT130 or MPT130MP or MPT131 or MPT131MP or permission of Program Director. | | | L+L 3.0 5.0 5.0 | T |
| MPT132MP | 2023 Fall | CNC Machining Level II | | Safe setup and operation of multi-axis Computer Numerical Control (CNC) machines. Topics include multi-axis programming, qualifying tooling, and tool offsets to produce a product to industry standards. | Prerequisites: A grade of C or better in MPT130 or MPT130MP or MPT131 or MPT131MP or permission of Program Director. | Occ | | LEC 3.0 2.0 2.0 LAB 0.0 3.0 3.0 | T |
| MPT140 | 2020 Fall | Manual CNC Programming | | Introduction to Manual Computer Numerical Control (CNC) programming of Word Address Language (G&M Code) for CNC machine tools. Multi-axis CNC programming for CNC controlled machines. Computer based tool path verification, CNC controller tool path verification and CNC machine tool program verification. | Prerequisites: A grade of C or better in (MPT130 or MPT130MP) or (MPT131 or MPT131MP) or machine shop experience or permission of Program Director. | Occ | | LEC 3.0 2.0 2.0 LAB 0.0 3.0 3.0 | T |
| MPT150 | 2020 Fall | Introduction to SolidWorks | | Introduction to CAD modeling, solid part generation, assembly of parts, and working drawing creation. Applications of CAD/CAM in Computer Integrated Technology (CIM). | Prerequisites: None. | Students interested in taking MPT250 Solid Design II: Advanced Part Modeling: SolidWorks are advised to take MPT151 Solid Design I: SolidWorks. | Occ | LEC 3.0 2.0 2.0 LAB 0.0 3.0 3.0 | T |
| MPT151 | 2023 Fall | Solid Design I: SolidWorks | | Introduction to solid modeling and parametric design of mechanical components. Use of SolidWorks commands. Creation of single part in two-dimensional (2D) sketch, three-dimensional (3D) solid. | Prerequisites: A grade of C or better in (MPT101 or MPT101MP) and (MPT111 or MPT111MP), or | | | L+L 3.0 5.0 5.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Feature based components and feature associativity. Initial preparation for the Certified Solid Works Associate (CSWA) exam. | permission of Program Director. | | | | |
| MPT152 | 2023 Fall | Solid Design: Certified SolidWorks Associate/Certified SolidWorks Professional Test Preparation | | Preparation for latest Certified SolidWorks Associate (CSWA) or Certified SolidWorks Professional (CSWP) exam. Includes exam objectives, solid design, assemblies, COSMOSXpress, and technical documentation in current version. | Prerequisites: Permission of Program Director. | | | L+L 1.0 2.0 2.0 | T |
| MPT213 | 2023 Fall | Coordinate Measuring Machines II | | Advanced techniques and operation of Coordinate Measuring Machine (CMM). Includes alignments, Computer-Aided Design (CAD) use, program control, scanning, and dimensioning. Offline programming for operation of CMM. Conformance to geometric dimensioning and tolerancing and manufacturing documentation. Implementation of measurement strategies and time-saving techniques for creating measurement routines. | Prerequisites: A grade of C or better in MPT113 or permission of Program Director. | Occ | Occ | L+L 3.0 4.0 4.0 | T |
| MPT214 | 2023 Fall | 3D Scanning and Reverse Engineering: Geomagic | | Principles of digital 3D Scanning and reverse engineering. Data acquisition of organic and mechanical components. Transformation of data into solid model geometry to create parts of equal or superior quality for machining or 3D printing. | A grade of C or better required in all Prerequisites. Prerequisites: MPT113 or permission of Program Director. Prerequisites or Corequisites: MPT151 or permission of Program Director. | | | L+L 3.0 5.0 5.0 | T |
| MPT215 | 2020 Fall | Workplace Quality Systems | | History of quality systems and procedures. Benefits of ISO 9000 procedures. The twenty elements of ISO 9000. | Prerequisites: None. | Occ | Occ | L+L 3.0 3.0 3.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Components and requirements of the International Organization for Standardization (ISO) 9000 quality and periodic audits. | | | | | |
| MPT216 | 2023 Fall | Applied Statistical Process Control Methods | | Identification of quality characteristics derived from variable and attribute data. Usage of statistical rules for interpretation of control charts. Analysis and recommendation of appropriate actions on factors affecting process variation. | Prerequisites: A grade of C or better in MPT215 or permission of Program Director. | | Occ | L+L 3.0 4.0 4.0 | T |
| MPT217 | 2020 Fall | Lean and Six Sigma Applied Concepts | | Lean manufacturing and Six Sigma methodologies and application to an organization. Identification of waste and application of cost to poor quality process within an organization. Quality System tools and implementation. Emphasis on organizational buy in. | Prerequisites: A grade of C or better in MPT215 or permission of Program Director. | | Occ | L+L 3.0 3.0 3.0 | T |
| MPT218 | 2023 Fall | Advanced Quality Process Methods | | High-level quality improvement process applied to manufacturing. Specific emphasis on experimental methods focused on waste reduction and general quality and process improvement. Understanding key process variables and decision-making methods based on established procedures. Applying statistical methods to process improvement. | Prerequisites: A grade of C or better in (MPT101, MPT110, MPT111, and MPT113), or permission of Program Director. | | Occ | L+L 3.0 4.0 4.0 | T |
| MPT220 | 2023 Fall | Manual Machining: NIMS Level I Certification | | Preparation for latest National Institute for Metalworking Skills (NIMS) Machining Level I certification in Drill Press, Manual Milling, Turning, and Grinding. | Prerequisites: A grade of C or better in MPT120, or MPT120MP, or permission of Program Director. | | | L+L 6.0 6.0 6.0 | T |
| MPT221 | 2023 Fall | Manual Machining: NIMS Level II Certification | | Preparation for current National Institute for Metalworking Skills (NIMS) | Prerequisites: A grade of C or better in MPT220, or (Level I | | | L+L 3.0 5.0 5.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Machining Level II certification in Manual Milling, Turning, and Grinding. | NIMS Certifications in: Drill Press, Lathe Between centers, Lathe Chucking, Mill, and Surface Grinding), or permission of Program Director. | | | | |
| MPT250 | 2023 Fall | Solid Design II: Advanced Part Modeling: SolidWorks | | Creating mechanical assemblies using SolidWorks design tools. Advanced feature tools including constraints and motion. Skill enhancement in the creation of advanced assemblies and part design, standard and advanced mates, and performing mass properties analysis. | Prerequisites: A grade of C or better in MPT151 or permission of Program Director. | | Occ | L+L 3.0 5.0 5.0 | T |
| MPT251 | 2023 Fall | Solid Design: Documentation/GD&T: SolidWorks | | Creation of engineering drawings. Parts and assemblies using associative mechanical design software. Principles and applications presented in accordance with the American Society of Mechanical Engineers (ASME) Y14 series of standards. Drawing sheets and templates, views, projections, dimensions and annotations, Geometric Dimensioning and Tolerancing (GD&T), assembly drawings, Bill of Materials (BOM), and assembly configurations. | Prerequisites: A grade of C or better in MPT151 or permission of Program Director. | | Occ | L+L 3.0 5.0 5.0 | T |
| MPT252 | 2023 Fall | Solid Design: Simulation: SolidWorks | | Principles of Finite Element Analysis (FEA), stress and gap analysis, and the Finite Element Method (FEM). Application of fixtures, loads, and connections to assemblies and models. Conducting static and dynamic simulation studies. Evaluation of simulation | Prerequisites: A grade of C or better in MPT250 or permission of Program Director. | | Occ | L+L 3.0 5.0 5.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | results and determination of Factor of Safety (FOS). | | | | | |
| MPT253 | 2023 Fall | Solid Design: Surface Modeling: SolidWorks | | Creation and manipulation of freeform shapes and surfaces using SolidWorks mechanical design software. Surface body design using 3D sketch geometry and solid features. Verification of surface integrity and quality. | Prerequisites: A grade of C or better in MPT250 or permission of Program Director. | | Occ | L+L 3.0 4.0 4.0 | T |
| MPT254 | 2023 Fall | Solid Design: Sheet Metal: SolidWorks | | Design of sheet metal parts and assemblies. Creation of sheet metal production drawings. Conversion of solid models to sheet metal. Creation of welded structures with standard structural members using SolidWorks Weldments feature. Design of weld beads and weld joints. | Prerequisites: A grade of C or better in MPT250 or permission of Program Director. | | Occ | L+L 3.0 4.0 4.0 | T |
| MPT255 | 2023 Fall | Solid Design 3D Printing | | 3D printing/additive manufacturing with various additive manufacturing materials. Model orientation for optimal printing and 3D layer slicing, infill control, and orientation. Foundation and support structure design. Fused Deposition Modeling (FDM), Stereolithography Apparatus (SLA), and metal 3D printing. | Prerequisites: A grade of C or better in [(MPT111 or MPT111MP) and MPT250], or permission of Program Director. | | Occ | L+L 4.0 5.0 5.0 | T |
| MPT260 | 2023 Fall | Computer Aided Manufacturing (CAM) I | | Introduction to Computer-Aided Manufacturing (CAM) system programming for Computer Numerical Control (CNC) machines using computer graphics for programming and tool path geometry. Computer programming for simultaneous 3-axis CNC machines, fourth and fifth positioning machining centers, and 2-axis turning centers. | Prerequisites: A grade of C or better in MPT130, or MPT130MP, or MPT131, or MPT131MP, or permission of Program Director. | | | L+L 3.0 5.0 5.0 | T |

Occ

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| MPT260MP | 2023 Fall | Computer Aided Manufacturing (CAM) I | | Introduction to Computer-Aided Manufacturing (CAM) system programming for Computer Numerical Control (CNC) machines using computer graphics for programming and tool path geometry. Computer programming for simultaneous 3-axis CNC machines, fourth and fifth positioning machining centers, and 2-axis turning centers. | Prerequisites: A grade of C or better in MPT130, or MPT130MP, or MPT131, or MPT131MP, or permission of Program Director. | | | LEC 3.0 1.0 1.0 LAB 0.0 4.0 4.0 | T |
| MPT261 | 2023 Fall | MasterCam Certified Programmer Mill Level I: Test Preparation: CPgM1 | | Review of the latest Certified Programmer Mill Level I (CPgM1) exam in preparation for exam. Competency of geometry construction, tool plane and work plane construction, Computer Numerical Control (CNC), milling tool path generation, and tool path verification with core Mastercam software. | Prerequisites: Permission of Program Director. | Occ | | L+L 1.0 2.0 2.0 | T |
| MPT262 | 2023 Fall | Computer Aided Manufacturing (CAM) II | | Advanced Computer-Aided Manufacturing (CAM) system programming for Computer Numerical Control (CNC) machines using computer graphics for programming and tool path geometry. Computer programming for mill turns and five axis simultaneous machining centers. | Prerequisites: A grade of C or better in MPT260, or MPT260MP, or permission of Program Director. | Occ | | L+L 3.0 5.0 5.0 | T |
| MPT262MP | 2023 Fall | Computer Aided Manufacturing (CAM) II | | Advanced Computer-Aided Manufacturing (CAM) system programming for Computer Numerical Control (CNC) machines using computer graphics for programming and tool path geometry. Computer programming for mill turns and five-axis simultaneous machining centers. | Prerequisites: A grade of C or better in MPT260, or MPT260MP, or permission of Program Director. | Occ | | LEC 3.0 1.0 1.0 LAB 0.0 4.0 4.0 | T |
| MPT270 | 2023 Fall | Tooling, Fixtures, and Gauges | | Various types of tools, fixtures, and gauges and their | Prerequisites: A grade of C or better in | | | LEC 3.0 3.0 3.0 | S |



Occ

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | function as related to manufacturing processes. Clamping and workholding principles as well as use of appropriate hardware. | [(MPT120, or MPT120MP, or four National Institute of Metalworking Skills (NIMS) in CNC Machining or Manual Machining) and (MPT150 or MPT151)], or CAD101, or CAD201, or Certified SolidWorks Associate (CSWA), or permission of Program Director. | | | | |
| MPT282AA | 2020 Fall | Volunteerism for Manufacturing: A Service Learning Experience | | Service-learning field experience within private/public agencies and citizen volunteer groups. | Prerequisites: Permission of Program Director. | MPT282AA may be repeated for a total of six (6) credit hours. Standard grading available according to procedures outlined in catalog. Repeats 6.0 6.0 | Occ | LAB 1.0 1.0 0.0 | L |
| MPT282AB | 2020 Fall | Voluteeerism for Manufacturing: A Service Learning Experience | | Service-learning field experience within private/public agencies and citizen volunteer groups. | Prerequisites: Permission of Program Director. | MPT282AB may be repeated for a total of six (6) credit hours. Standard grading available according to procedures outlined in catalog. Repeats 3.0 6.0 | Occ | LAB 2.0 2.0 0.0 | L |
| MPT282AC | 2020 Fall | Volunteerism for Manufacturing: A Service Learning Experience | | Service-learning field experience within private/public agencies and citizen volunteer groups. | Prerequisites: Permission of Program Director. | MPT282AC may be repeated for a total of six (6) credit hours. Standard grading available according to procedures outlined in catalog. Repeats 2.0 6.0 | Occ | LAB 3.0 3.0 0.0 | L |
| MPT290AA | 2020 Fall | Manufacturing Production Internship | | Construction internship office/field experience with private/public agencies or citizen volunteer groups. Eighty (80) hours of designated work experience. | Prerequisites: Permission of Program Director. | | | LAB 1.0 6.0 0.0 | C |
| MPT290AB | 2020 Fall | Manufacturing Production Internship | | Construction internship office/field experience with private/public agencies or citizen volunteer groups. One hundred and sixty (160) hours of designated work experience. | Prerequisites: Permission of Program Director. | | | LAB 2.0 12.0 0.0 | C |

Occ

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| MPT290AC | 2020 Fall | Manufacturing Production Internship | | Construction internship office/field experience with private/public agencies or citizen volunteer groups. Two hundred and forty (240) hours of designated work. | Prerequisites: Permission of Program Director. | | | LAB 3.0 18.0 0.0 | C |
| MPT296WA | 2023 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. | Prerequisites: Completion of at least twelve (12) college credits, minimum 2.6 grade point average and be able to obtain a position related to student's academic or career goals (student's present job may qualify) or permission of Program Director. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of Program Director. | Occ<br><br>Occ | | LAB 1.0 5.0 0.0 | C |
| MPT296WB | 2023 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. | Prerequisites: Completion of at least twelve (12) college credits, minimum 2.6 grade point average and be able to obtain a position related to student's academic or career goals (student's present job may qualify) or permission of Program Director. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of Program Director. | Occ | | LAB 2.0 10.0 0.0 | C |
| MPT296WC | 2023 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of | Prerequisites: Completion of at least | | | LAB 3.0 15.0 0.0 | C |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | educators and employers to accomplish an outcome related to the career objectives of the students. | twelve (12) college credits, minimum 2.6 grade point average and be able to obtain a position related to student's academic or career goals (student's present job may qualify) or permission of Program Director. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of Program Director. | | | | |
| MPT296WD | 2023 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. | Prerequisites: Completion of at least twelve (12) college credits, minimum 2.6 grade point average and be able to obtain a position related to student's academic or career goals (student's present job may qualify) or permission of Program Director. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of Program Director. | Occ | | LAB 4.0 20.0 0.0 | C |
| MPT298AA | 2023 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. | Prerequisites: Permission of Program Director. | | | LAB 1.0 1.0 0.0 | Z |



Occ

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Allows the best aspects of independent study and individualized learning to be combined to maximize student development. | | | | | |
| MPT298AB | 2023 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. | Prerequisites: Permission of Program Director. | Occ | | LAB 2.0 2.0 0.0 | Z |
| MPT298AC | 2023 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. | Prerequisites: Permission of Program Director. | Occ | | LAB 3.0 3.0 0.0 | Z |
| MRT298AA | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of | Prerequisites: Permission of Program Director or Instructor. | | | LAB 1.0 1.0 0.0 | Z |



Occ

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | | | | | |
| MRT298AB | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | Prerequisites: Permission of Program Director or Instructor. | | Occ | LAB 2.0 2.0 0.0 | Z |
| MRT298AC | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | Prerequisites: Permission of Program Director or Instructor. | | Occ | LAB 3.0 3.0 0.0 | Z |
| MSP101 | 2021 Fall | Introduction to Mortuary Science | | Designed to orient prospective students to mortuary science and its history, educational requirements, internships, licensure examination, job descriptions for funeral directors, embalmers and cremationists, and employment outlook. | Prerequisites: None. | | Occ | LEC 1.0 1.0 1.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| MSP105 | 2023 Fall | Cremation for Mortuary Science | | Overview of cremation topics, including proper procedures, legal considerations, services, merchandise, trends, and the history of cremation. | Prerequisites: Permission of Instructor. | | Occ | LEC 1.0 1.0 1.0 | S |
| MSP201 | 2021 Fall | History and Sociology of Funeral Service | | Survey of history of funeral service from ancient to modern times. Sociological aspects of how various cultures deal with death. | Prerequisites: Admission to the Mortuary Science program. | | Occ | LEC 3.0 3.0 3.0 | S |
| MSP202 | 2021 Fall | Embalming | | Study of the disinfection, preservation and restoration of the deceased human body by chemical means for the specific purpose to delay organic decomposition. | Prerequisites: Admission to the Mortuary Science program. | | Occ | LEC 3.0 3.0 3.0 | S |
| MSP202LL | 2021 Fall | Embalming Lab | | Field experience involving observation and practice of embalming processes in a laboratory setting. Includes writing case study reports. | A grade of C or better required in all Prerequisites. Prerequisites or Corequisites: MSP202 and admission to the Mortuary Science program. | | Occ | LAB 1.0 2.0 2.0 | T |
| MSP203 | 2021 Fall | Microbiology for Mortuary Science | | Survey of microbiology as it pertains to mortuary science and the funeral service profession. Review of safety precautions, sanitation practices, and pathogens that can lead to illness or death. | Prerequisites: Admission to the Mortuary Science program. | | Occ | LEC 3.0 3.0 3.0 | S |
| MSP204 | 2021 Fall | Chemistry for Mortuary Science | | Basic principles of general chemistry, organic chemistry, biochemistry, embalming chemistry, and toxicology as it relates to mortuary science. Safety practices regarding potentially harmful chemicals. | Prerequisites: Admission to the Mortuary Science program. | | Occ | LEC 3.0 3.0 3.0 | S |
| MSP205 | 2021 Fall | Mortuary Administration I | | Funeral directing and establishing professional relationships with religious leaders and family members. Includes documentation procedures from time of death to funeral. | Prerequisites: Admission to the Mortuary Science program. | | Occ | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| MSP206 | 2021 Fall | Mortuary Administration II | | Operation of the established funeral home, including principles and product knowledge in the area of funeral service management and merchandising. | Prerequisites: A grade of C or better in MSP205. | | | LEC 3.0 3.0 3.0 | S |
| MSP207 | 2021 Fall | Mortuary Science Restorative Art | | Care and restoration of the deceased human body to create natural form and appearance. Includes anatomical aspects and color theory. | Prerequisites: Admission to the Mortuary Science program. | | Occ | LEC 3.0 3.0 3.0 | S |
| MSP207LL | 2021 Fall | Mortuary Science Restorative Art Lab | | Practice care and restoration of the deceased human body to create natural form and appearance in a laboratory setting. Includes anatomical aspects and color theory. | A grade of C or better required in all Prerequisites. Prerequisites or Corequisites: MSP207 and admission to the Mortuary Science program. | Occ | Occ | LAB 1.0 2.0 2.0 | T |
| MSP208 | 2021 Fall | Legal, Regulatory, and Ethical Issues in Mortuary Science | | Mortuary law, regulation by the Federal Trade Commission, and ethical issues in mortuary science. Individual state laws as they pertain to the regulation of funeral establishments and funeral service personnel. | Prerequisites: Admission to the Mortuary Science program. | | Occ | LEC 3.0 3.0 3.0 | S |
| MSP209 | 2021 Fall | Pathology for Mortuary Science | | Pathologic conditions which require special treatment and terminology associated with the causes of death. | Prerequisites: Admission to the Mortuary Science program. | | Occ | LEC 3.0 3.0 3.0 | S |
| MSP210 | 2021 Fall | Psychology, Counseling, and Mortuary Science | | Psychology and grief counseling principles in mortuary science. | Prerequisites: Admission to the Mortuary Science program. | | Occ | LEC 2.0 2.0 2.0 | S |
| MSP211 | 2021 Fall | Compendium for Mortuary Science | | Analysis of daily tasks performed by funeral service personnel. Capstone experience based on all previous course work. | Prerequisites: Admission to the Mortuary Science program. | | Occ | LEC 2.0 2.0 2.0 | S |
| MSP282AA | 2013 Fall | Service-Learning Experience in Mortuary Science | | Unpaid Service-Learning (SL) experience, completed with approved community partner. | Prerequisites: Permission of Instructor. | MSP282AA may be repeated for a total of six (6) credit hours. Standard grading available according to procedures outlined in catalog. | Occ | LAB 1.0 1.0 0.0 | L |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| MSP282AB | 2013 Fall | Service-Learning Experience in Mortuary Science | | Unpaid Service-Learning (SL) experience, completed with approved community partner. | Prerequisites: Permission of Instructor. | MSP282AB may be repeated for a total of six (6) credit hours. Standard grading available according to procedures outlined in catalog. | Occ | LAB 2.0 2.0 0.0 | L |
| MSP282AC | 2013 Fall | Service-Learning Experience in Mortuary Science | | Unpaid Service-Learning (SL) experience, completed with approved community partner. | Prerequisites: Permission of Instructor. | MSP282AC may be repeated for a total of six (6) credit hours. Standard grading available according to procedures outlined in catalog. | Occ | LAB 3.0 3.0 0.0 | L |
| MSP296WA | 2003 Spring | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor. | | Occ | LAB 1.0 5.0 0.0 | Z |
| MSP296WB | 2003 Spring | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor. | | Occ | LAB 2.0 10.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| MSP296WC | 2003 Spring | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor. | | Occ | LAB 3.0 15.0 0.0 | Z |
| MSP296WD | 2003 Spring | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor. | | Occ | LAB 4.0 20.0 0.0 | Z |
| MST140 | 2018 Fall | Microsoft Networking Essentials | | Emphasis on local area network with overview of wide area networks. Includes terminology, hardware and software components, connectivity, network architecture, packet structure, topologies, communication standards and protocols, and security issues. Preparation | Prerequisites: None. (BPC110 or CIS105 and CIS121AB) suggested but not required. | | | L+L 3.0 4.0 4.0 | T |



Occ

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | for Microsoft certification examination. | | | | | |
| MST141 | 2018 Fall | Enterprise Desktop Support Technician | | Troubleshooting and repairing problems with Microsoft Windows desktop operating systems. Basic knowledge of system architecture and security as needed to provide skills required to support users. | A grade of C or better required in all Prerequisites. Prerequisites: (CIS102 or any CIS102++ course) and CIS105 or permission of Instructor. Prerequisites or Corequisites: Any MST150++ course or permission of Instructor. | MST141 is preparation for the Microsoft Certified IT Professional: Enterprise Desktop Support Technician 7 (MCITP) certification examination, 70-685. | Occ | L+L 3.0 4.0 4.0 | T |
| MST150EI | 2020 Fall | Configuring Windows 8 | | In-depth exploration of how to effectively install and configure Windows 8. Includes features of Windows 8, virtualization with Hyper-V, network connectivity, access to resources, monitor and maintain Windows clients and backup and recovery. Designed to prepare students for the Microsoft Windows 8 certification examination (70-687). | Prerequisites: None. MST140 or CNT140++ recommended. | | | L+L 3.0 4.0 4.0 | T |
| MST150SV | 2021 Fall | Microsoft Windows 7 Configuration | | Knowledge and skills necessary to perform installation and day-to-day administration and support of the Microsoft Windows 7 operating system. Preparation for the Microsoft certification examination. | Prerequisites: None. CIS190 or MST140 suggested but not required. | Occ | | L+L 3.0 4.0 4.0 | T |
| MST150WT | 2020 Fall | Installing and Configuring Microsoft Windows 10 | | In-depth exploration of how to effectively install and configure Windows 10. Includes features of Windows 10, virtualization improvements, network connectivity, access to resources, monitor and maintain Windows clients and backup and recovery. Designed to prepare students | Prerequisites: None. CIS190 or CNT140AB suggested but not required. | Occ | | L+L 3.0 4.0 4.0 | T |



Occ

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | for the Microsoft Windows 10 certification examination. | | | | | |
| MST152 | 2018 Fall | Microsoft Windows Server | | Knowledge and skills necessary to install, configure, customize, optimize, network, integrate, and troubleshoot Windows Server. Preparation for Microsoft certification examination. | Prerequisites: A grade of C or better in any MST150 course or Corequisites: any MST150 course or permission of Instructor. | | Occ | L+L 4.0 5.0 5.0 | T |
| MST155DA | 2018 Fall | Windows Server Network Infrastructure Configuration | | Information and skills necessary to design a Microsoft Windows networking services infrastructure design. Includes network foundation design, Internet and private networks connectivity, in addition to functionality security and performance features of networking services. | Prerequisites: A grade of C or better in MST150, or any MST150++ course, or permission of Instructor. | | Occ | L+L 4.0 5.0 5.0 | T |
| MST155DB | 2018 Fall | Configuring Advanced Windows Server Services | | In-depth exploration of how to effectively install and configure Windows Server. Designed to prepare students for the Microsoft Configuring Advanced Windows Server Services examination (70-412). | Prerequisites: A grade of C or better in MST158DA or MST158DB or permission of Instructor. | Recommend that prerequisite course completed was for the same version of Windows server as will be taught in MST155DB. | Occ | L+L 4.0 5.0 5.0 | T |
| MST155DC | 2018 Fall | Installation, Storage, and Compute with Windows Server | | This course focuses primarily on the installation, storage, and compute features and their functionality that is available within Windows Server. As Information Technology pushes towards more cloud based solutions and makes our classic approach obsolete, this course will help students prepare for a career within an Information Technology enterprise and help distinguish themselves in today's competitive job market. This course covers various topics like Windows Server | Prerequisites: A grade of C or better in MST150++ or permission of Instructor. | | Occ | L+L 4.0 5.0 5.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | installation, Hyper-V deployments and storage options in relation to this new cloud based reality. | | | | | |
| MST157DA | 2018 Fall | Active Directory Windows Server Configuration | | Information and skills necessary to install, configure and administer Active Directory service. Covers tasks required to create users and groups, and to implement Group Policies which provide centralized management of users and computers. | Prerequisites: Any MST course or permission of Instructor. | MST157DA is a preparation for the Microsoft 70-640 professional certification test. | Occ | L+L 4.0 5.0 5.0 | T |
| MST157DB | 2018 Fall | Administering Windows Server | | In-depth exploration of how to effectively manage Windows Server. Designed to prepare students for the Administering Microsoft Windows Server examination (70-411). | Prerequisites: A grade of C or better in MST158DA or MST158DB or permission of Instructor. | Recommend that prerequisite course completed was for the same version of Windows server as will be taught in MST157DB. | Occ | L+L 4.0 5.0 5.0 | T |
| MST157DC | 2018 Fall | Networking with Windows Server | | This course focuses on the networking features and their functionality available within Windows Server. It builds upon the skills from the Installation, Storage, and Compute with Windows Server course (MST155DC) and will develop skills related to Software-Defined Networking (SDN) solutions within Hyper-V, remote connectivity with VPN and Direct Access, and providing Internet connectivity with Domain Name System (DNS), Dynamic Host Configuration Protocol (DHCP), and Internet Protocol Address Management (IPAM). This course helps prepare for the 70-741 industry certification test. | Prerequisites: A grade of C or better in MST155DC or permission of Instructor. | | Occ | L+L 4.0 5.0 5.0 | T |
| MST158DA | 2018 Fall | Windows Server Administration | | Knowledge and skills necessary to install, configure, customize, optimize, network, | Prerequisites: A grade of C or better in (MST155 or any MST155++ course) and | | | L+L 4.0 5.0 5.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | integrate, and troubleshoot Windows Server. | (MST157 or any MST157++ course), or permission of Instructor. | | | | |
| MST158DB | 2018 Fall | Installing and Configuring Windows Server | | In-depth exploration of how to effectively install and configure Windows Server. Includes roles and features of Server, virtualization with Hyper-V, core network services, Active Directory, and Group Policy. Designed to prepare students for the corresponding Microsoft Windows Server Installation and Configuration examination (70-410). | Prerequisites: A grade of C or better in (MST140 or CNT140 or CNT140AA) and (MST150 or MST150SV or MST150VI or MST150XP) or permission of Instructor. | | Occ | L+L 4.0 5.0 5.0 | T |
| MST158DC | 2019 Fall | Identity Management with Windows Server 2016 | | Prepares students to manage Windows Server 2016 tasks. Configure and manage multiple services, such as Identity Management and Active Directory. Learn how to install and configure domain controllers and create and manage users, groups, and computers within Organizational Units. Prepares students for the Microsoft exam, Identity with Windows Server 2016-70-742. | Prerequisites: A grade of C or better in MST157DC. | | Occ | L+L 4.0 5.0 5.0 | T |
| MST160 | 2022 Fall | Azure Administrator | | Teaches IT professionals how to manage Azure subscriptions, secure identities, administer the infrastructure, configure virtual networking, connect Azure and on-premises sites, manage network traffic, implement storage solutions, create and scale virtual machines, implement web apps and containers, backup and share data, and monitor solutions. | Prerequisites: A grade of C or better in MST150WT, or permission of Instructor. | | Occ | L+L 4.0 5.0 5.0 | T |
| MST260 | 2022 Fall | Microsoft Azure Cloud Development and Operations | | Designed to provide technical information and skills required | Prerequisites: A grade of C or better in | | | L+L 3.0 4.0 4.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | to develop and operate Microsoft Azure cloud infrastructure environments. Describes the design processes and implementation strategies for application and infrastructure that enable continuous integration, testing, and delivery, as well as infrastructure as code and process monitoring. Emphasizes processes, and technologies required to increase software delivery velocity and improve service reliability. Helps to prepare students for the Microsoft AZ-400, Azure DevOps Engineer or DevOps Institute, DevOps Foundation exams. | (CIS156 and MST160) or permission of Instructor. | | | | |
| MST280CA | 2018 Fall | Current Topics in Microsoft Computing | | Critical inquiry of current topics in Microsoft Technology computing. Application of Microsoft Technology trends to solve problems and/or investigate issues. | Prerequisites: Permission of Instructor. | | Occ | L+L 3.0 4.0 4.0 | T |
| MTC098 | 2010 Fall | Music Theory Boot Camp | | Intensive review of music theory fundamentals to develop and/or refresh skills necessary for advanced study. | Prerequisites: None. | | Acad | LEC 1.0 1.0 1.0 | S |
| MTC101 | 1994 Spring | Introduction to Music Theory | | Designed to develop written and aural skills necessary for advanced study of music theory and skills. Recommended for music majors | Prerequisites: None. | | Acad | LEC 3.0 3.0 3.0 | S |
| MTC103 | 2018 Fall | Introduction to Aural Perception | | An introduction to the aural skills necessary to hear relationships of intervals, rhythms, melody, and harmony in music. | Prerequisites: None. | MTC103 may be repeated for a total of two (2) credit hours. | Acad | L+L 1.0 2.0 2.0 | T |
| MTC105 | 2021 Summer | Music Theory I | | The chronological study of music theory including: harmony, melody, texture, structure and timbre through analysis, original compositions | Prerequisites: A grade of C or better in MTC101 or permission of Instructor. Corequisites: MTC106. | | Acad | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | and basic exercises to demonstrate musical concepts. | | | | | |
| MTC106 | 2018 Fall | Aural Perception I | | The development of listening and performing skills through dictation, sight singing and keyboard harmony | Prerequisites: None. Corequisites: MTC105. | | Acad | L+L 1.0 2.0 2.0 | T |
| MTC110 | 2000 Fall | Music Notation for Songwriting | | Basic musical notational system with emphasis on note reading, staff placement, meter, rhythmic patterns, basic harmonic patterns, chords and chord symbols, lead sheet forms, scales and keys | Prerequisites: None. | | Acad | LEC 2.0 2.0 2.0 | S |
| MTC122 | 2021 Summer | Fretboard Harmony | | An in-depth study of functional and theoretical practice as applied to the fretboard of the guitar through understanding of chord symbols, intervals and rhythm | Prerequisites: A grade of C or better in MTC101. | | Acad | LEC 3.0 3.0 3.0 | S |
| MTC130 | 2010 Fall | Jazz Theory | | Develop written and aural theory skills necessary in the jazz idiom. | Prerequisites: A grade of C or better in (MTC101 and MTC103), or permission of Instructor. | MTC130 is recommended for students taking jazz improvisation, jazz composition and jazz combo. | Acad | LEC 2.0 2.0 2.0 | S |
| MTC155 | 1995 Fall | Music Theory II | | A continuation of Music Theory I with emphasis on harmony and part-writing procedures | Prerequisites: A grade of C or better in MTC105. Corequisites: MTC156. | | Acad | LEC 3.0 3.0 3.0 | S |
| MTC156 | 2021 Fall | Aural Perception II | | A continuation of Aural Perception I, including harmonic practices. | Prerequisites: A grade of C or better in MTC106. Corequisites: MTC155. | | Acad | L+L 1.0 2.0 2.0 | T |
| MTC180 | 2019 Fall | Computer Literacy for Musicians | | Instruction in basic computer literacy, including generic applications and music-specific programs with hands-on experience. Ability to read music notation required. | Prerequisites: A grade of C or better in MTC101, or MTC105, or Corequisites: MTC105, or permission of Instructor. | General Education Designation: Computer/Statistics/Quantitative Applications - [CS] | Acad | L+L 3.0 4.0 4.0 | T |
| MTC190 | 2018 Fall | Computer-Aided Music Notation | | Introduction to computer-aided music notation, culminating in editing and producing publication-quality music scores. Ability to read music notation required | Prerequisites: Permission of Instructor. | | Acad | L+L 3.0 4.0 4.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| MTC203 | 2008 Spring | Jazz Composition | | Composition and analysis of standard song forms as well as other standard compositional practices and forms idiomatic to jazz | Prerequisites: A grade of C or better in MTC155 or MUP165 or permission of Instructor. | | Acad | L+L 3.0 3.0 0.0 | L |
| MTC205 | 2011 Fall | Music Theory III | | The study of chromatic harmony and melody, modulation techniques and expanded chords. The analysis of formal structure | Prerequisites: A grade of C or better in MTC155. Corequisites: MTC206. | Course Attribute(s): Arizona Shared Unique Number SUN#: MUS 2222 | Acad | LEC 3.0 3.0 3.0 | S |
| MTC206 | 2021 Fall | Aural Perception III | | A development of listening and performing skills, including an introduction of chromatic harmonic techniques and concepts of style. | Prerequisites: A grade of C or better in MTC156. Corequisites: MTC205. | | Acad | L+L 1.0 2.0 2.0 | T |
| MTC240 | 1990 Fall | Composition | | Introduction to the basics of music composition, stressing techniques and procedures for developing original ideas. | Prerequisites: A grade of C or better in (MTC105 and MTC106 or equivalent) and permission of Instructor. | MTC240 may be repeated for a total of twelve (12) credit hours. | Acad | L+L 3.0 0.6 0.0 | Z |
| MTC255 | 2011 Fall | Music Theory IV | | A continuation of Music Theory III, including 20th century theories and techniques | Prerequisites: A grade of C or better in MTC205. Corequisites: MTC256. | Course Attribute(s): Arizona Shared Unique Number SUN#: MUS 2223 | Acad | LEC 3.0 3.0 3.0 | S |
| MTC256 | 2021 Fall | Aural Perception IV | | A continuation of Aural Perception III, including extended chords. | Prerequisites: A grade of C or better in MTC206. Corequisites: MTC255. | | Acad | L+L 1.0 2.0 2.0 | T |
| MTC298AA | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | Prerequisites: Permission of Program Director or Instructor. | | Acad | LAB 1.0 1.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| MTC298AB | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | Prerequisites: Permission of Program Director or Instructor. | | Acad | LAB 2.0 2.0 0.0 | Z |
| MTC298AC | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | Prerequisites: Permission of Program Director or Instructor. | | Acad | LAB 3.0 3.0 0.0 | Z |
| MUC109 | 2020 Fall | Music Business: Content Creation and Copyright | | Designed to provide an overview of content creation and copyright considerations within the Music Industry. Topics include songwriting and music creation, copyright, publishing and licensing, studio production, media applications of music, business ownership and operations, and emerging technologies. | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| MUC110 | 2020 Fall | Music Business: Marketing and Monetization | | Designed to provide an overview of the marketing and | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | monetization of music. Topics include music label operations; contracts; marketing, promotion, and merchandising; agents, managers, and attorneys; concert promotion and touring; and unions and guilds. | | | | | |
| MUC111 | 2020 Fall | Digital Audio Workstation I (DAW I) | | Use of digital mixing and automation software in conjunction with editing and recording. Includes computer operation, troubleshooting, and file management. | Prerequisites: A grade of C or better in MUC195 or MUC195AA or FMP105 or permission of Instructor. | | Occ | L+L 3.0 5.0 5.0 | T |
| MUC112 | 2018 Fall | Digital Audio Workstation II (DAW II) | | Use of digital mixing and automation software in conjunction with editing and recording. Includes computer operation, troubleshooting, and file management. | Prerequisites: A grade of C or better in MUC111, and (MUC195 or MUC195AA). | | | L+L 3.0 5.0 5.0 | T |
| MUC114 | 2019 Spring | Song Publishing and Marketing | | Publishing and marketing of songs including services that publishers provide and what to consider when choosing one, a summary of various aspects and types of contracts, working as a staff writer, publisher marketing, self marketing, and additional markets. | Prerequisites: None. | Occ | Occ | LEC 1.0 1.0 0.0 | C |
| MUC115 | 2019 Spring | Song Copyrighting and Demos | | Terms involved with copyright laws. Clarification of when copyright begins, ownership of copyright and registration, limitations of copyright, and when works become public domain. Phases of making a demonstration tape or CD. Promotion and presentation of a demo. | Prerequisites: None. | | Occ | LEC 1.0 1.0 0.0 | C |
| MUC120 | 2023 Fall | Introduction to Sound Design for Film and Video | FMT120 | Basic principles of recording and mixing sound for film and video. Includes voice-over, automatic dialog replacement (ADR), foley, ambience, special effects and music. | Prerequisites: A grade of C or better in (FMT100 and FMT136) or permission of Instructor. | | Occ | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Emphasis on analog and digital recording techniques in the field as well as in a controlled environment. | | | | | |
| MUC122 | 2020 Fall | Sound Design I | | Introduction to Sound Design and Audio Post-Production for Multimedia. Includes creating and editing Sound Effects, ADR, Foley, Music, and Ambience, such as Film, TV, Video Gaming, Theatre, and Dance. Emphasis on computer assisted production using Digital Audio Workstations and sound design techniques using industry-standard equipment. | Prerequisites: None. | | Occ | L+L 3.0 5.0 5.0 | T |
| MUC135 | 2018 Fall | Introduction to Disc Jockey Techniques | | Development of beginning level live-performance disc jockey techniques. Emphasis on understanding the construction of industry-formatted dance songs, cueing, segueing/mixing methods, the relationship of beats per minute to segueing, and programming songs to entertain a live audience. Covers the history of the live performance DJ and strategies for soliciting employment in the field. | Prerequisites: None. | MUC135 may be repeated for a total of six (6) credits. | Occ | L+L 3.0 3.0 3.0 | T |
| MUC136 | 2018 Fall | Turntablism: The Art of the Scratch DJ | | Covers the skills required in vinyl manipulation; examines the development of turntable techniques and the contributions made by individual turntable artists. | Prerequisites: None. | MUC136 may be repeated for a total of six (6) credits. | Occ | L+L 3.0 4.0 4.0 | T |
| MUC137 | 2018 Fall | Digital DJ Performance Techniques | | Covers the skills required for live performance employing digital media with an emphasis on programs such as Serato Scratch Live and Ableton Live. | Prerequisites: None. | MUC137 may be repeated for a total of six (6) credits. | Occ | L+L 3.0 4.0 4.0 | T |
| MUC138 | 2018 Summer | Disc Jockey Laboratory | | Operation, scope, roles and responsibilities in the | Prerequisites: None. | MUC138 may be repeated for a total of six (6) credit hours. | Occ | LAB 1.0 1.0 0.0 | L |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | commercial music production process. | | | | | |
| MUC139 | 2018 Fall | Introduction to Emcee-Rapping Techniques | | Development of beginning level live-performance and recording emcee-rap techniques. Emphasis on understanding rhyme, structure, breath control, stage presence, and performance. Covers the history of the DJ/emcee and origins of the rapper, song structure, enunciation, vocal delivery, breath control, melody, and pacing while staying on beat. | Prerequisites: None. | MUC139 may be repeated for a total of six (6) credits. | Occ | L+L 3.0 4.0 4.0 | T |
| MUC140 | 2023 Fall | Songwriting | | An introduction to the art and craft of songwriting through the study and analysis of diverse songwriters and musical styles, and creation of original songs. | Prerequisites: A grade of C or better in MTC101, or MTC105, or permission of Instructor. | MUC140 may be repeated for a total of six (6) credits. | Occ | LEC 3.0 3.0 3.0 | S |
| MUC145 | 2012 Summer II | Recording Studio Business Operations | | Operation, scope, roles and responsibilities in the commercial music production process. Focuses on the business aspects and daily management of the professional recording studio. Includes strategies for project management, client service, marketing, equipment acquisition, staffing and employment. | Prerequisites: None. | | Occ | LEC 2.0 2.0 2.0 | S |
| MUC180 | 2020 Spring | Computer Literacy for the Music Business | | Basic computer literacy, including business applications used in the Music Industry, with hands-on experience. | Prerequisites: A grade of C or better in MUC109 or permission of Instructor or Department or Division Chair. | Course Attribute(s): General Education Designation: Computer/Statistics/Quantitative Applications - [CS] | Occ | L+L 3.0 3.0 0.0 | L |
| MUC181 | 2023 Fall | Popular Music Orchestration and Arranging | | Basic orchestration and arranging techniques as used in popular music genres including jazz, pop, and rock music for vocal and instrumental music performance ensembles. | A grade of C or better required in all Prerequisites. Prerequisites or Corequisites: (MTC155 or higher level of MTC | | | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Idiomatic uses of harmony, melodic rhythm, voicing, tonal color and notation. | music theory) and MTC180. | | | | |
| MUC191 | 2023 Fall | Electronic Music I | | An introduction to creating music with computers, utilizing the Musical Instrument Digital Interface (MIDI) protocol, synthesizers, digital audio software/hardware, and MIDI controllers. | Prerequisites: None. | | Occ | L+L 3.0 4.0 4.0 | T |
| MUC192 | 2023 Fall | Electronic Music II | | Continued study of creating music with computers, utilizing the Musical Instrument Digital Interface (MIDI) configurations, audio editing, and music software/hardware at the intermediate level. Emphasis on more complex configurations and their applications in compositions. | Prerequisites: A grade of C or better in MUC191. | | Occ | L+L 3.0 4.0 4.0 | T |
| MUC193 | 2023 Fall | Computer-Based Sound Synthesis | | Principles of sound synthesis using computer-based methods. Synthesis methods include subtractive, additive, frequency modulation, sample and synthesis, and hybrid. Emphasis on synthesis techniques for use in electronic music. | Prerequisites: A grade of C or better in MTC191 or permission of Instructor. | | Occ | L+L 3.0 4.0 4.0 | T |
| MUC194 | 2021 Fall | Audio Mixing Techniques | | Approaches in final mixing for different musical genres. Develop critical listening skills, and applying these techniques to students' projects. Professional-type facilities and equipment available for student use. | Prerequisites: A grade of C or better in MUC111 and MUC196, or permission of Instructor. | | Occ | L+L 3.0 4.0 4.0 | T |
| MUC195 | 2020 Fall | Studio Music Recording I | | Basic principles of studio sound recording. Emphasis on musical acoustics, operation of recording equipment, studio setups, and multitrack recording. Includes studio session process and musical production decisions. | Prerequisites: None. | | Occ | L+L 3.0 5.0 5.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| MUC195AA | 2020 Fall | Studio Music Recording I | | Basic principles of studio sound recording. Emphasis on musical acoustics, operation of recording equipment, studio setups, and multitrack recording. Includes studio session process and musical production decisions. | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0<br>LAB 0.0 2.0 2.0 | T |
| MUC196 | 2020 Fall | Studio Music Recording II | | Emphasis on signal-processing equipment, mixing consoles, and advanced musical recording session procedures, production, and engineering. Includes mix-down and resultant master tape of a musical recording session. | Prerequisites: A grade of C or better in MUC195 or MUC195AA. | | Occ | L+L 3.0 5.0 5.0 | T |
| MUC196AA | 2020 Fall | Studio Music Recording II | | Emphasis on signal-processing equipment, mixing consoles, and advanced musical recording session procedures, production, and engineering. Includes mix-down and resultant master tape of a musical recording session. | Prerequisites: A grade of C or better in MUC195 or MUC195AA. | | Occ | LEC 3.0 3.0 3.0<br>LAB 0.0 2.0 2.0 | T |
| MUC197 | 2020 Fall | Live Sound Reinforcement I | | Basic principles of live sound engineering. Emphasis on signal flow, acoustic, sound reinforcement set-ups and installation, signal processing, microphone selections and placement. Includes setting up sound systems and mixing live music. | Prerequisites: None. | | Occ | L+L 3.0 4.0 4.0 | T |
| MUC198 | 2020 Fall | Live Sound Reinforcement II | | Emphasis on musical production decisions. Front-of-house and monitor console placement, loudspeaker arrangements, power considerations, program material and sound pressure levels. Includes setting up of sound system and mixing live performances with various | Prerequisites: A grade of C or better in MUC197. | | Occ | L+L 3.0 4.0 4.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | styles of music. In addition to mixing at alternate locations. | | | | | |
| MUC209 | 2011 Fall | Music Industry Entrepreneurship | | Operation, scope, and career opportunities in the music business. Focuses on music in the areas of entrepreneurship, visionary development and the collaboration process. | Prerequisites: A grade of C or better in MUC109 and MUC110 or permission of Instructor. | | Occ | LEC 3.0 3.0 0.0 | L |
| MUC210 | 2012 Summer I | Advanced Industry Topics: Concert Promotion and Touring | | Operation, scope, and career opportunities in the music business. Focuses on advanced aspects of concert promotion, touring and festival production. Areas of focus include marketing, planning, operations, talent buying, and budgeting for profitable and successful music-performance stage shows. | Prerequisites: A grade of C or better in MUC109 or permission of Instructor or Department or Division Chair. | | | LEC 3.0 3.0 0.0 | L |
| MUC211 | 2012 Summer I | Advanced Industry Topics: Artist Management and Development | | Operation, scope, and career opportunities in the music business. Focus on advanced aspects of artist management and development. Include roles and responsibilities of an Artist Manager, the nature and structure of the relationship between an Artist and Artist Manager, and the development of business, and career management techniques for Artist Managers. | Prerequisites: A grade of C or better in MUC109 or permission of Instructor or Department or Division Chair. | Occ<br><br>Occ | | LEC 3.0 3.0 0.0 | L |
| MUC215 | 2019 Spring | Music Industry Seminar: Innovation in Music Technology | | Seminar in Music Industry technology with an emphasis on current product and service innovations. Emphasis on marketing and promotional uses of new technology. | Prerequisites: None. | MUC215 may be repeated for credit. | Occ | LEC 1.0 1.0 0.0 | C |
| MUC216 | 2021 Spring | Music Workshop/Seminar | | Workshop seminar in commercial music disciplines. | Prerequisites: None. | MUC216 may be repeated for credit. | Occ | LEC 1.0 1.0 0.0 | C |
| MUC220 | 2023 Fall | Advanced Sound Design for Film and Video | FMT220 | Explores techniques and advanced applications used in designing sound using original | Prerequisites: A grade of C or better in FMT/MUC120 or permission of Instructor. | | Occ | LEC 3.0 3.0 3.0 LAB 0.0 2.0 2.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | student footage on a non-linear editing system. | | | | | |
| MUC222 | 2023 Fall | Sound Design II | | Intermediate level Sound Design and Audio Post-Production for Multimedia. | A grade of C or better required in all Prerequisites. Prerequisites: MUC122. Prerequisites or Corequisites: MUC191 or MUC111 or permission of Instructor. | | Occ | L+L 3.0 5.0 5.0 | T |
| MUC237 | 2023 Fall | Electronic Dance Music Production | | Process and skills required for music production employing digital media, with an emphasis on producing music on digital audio workstations. | Prerequisites: A grade of C or better in MUC191 or permission of Instructor. | MUC237 may be repeated for a total of six (6) credits. | Occ | L+L 3.0 4.0 4.0 | T |
| MUC240 | 2023 Fall | Creative Music Production | | Operation, scope, roles and responsibilities in the commercial music production process. Focuses on creative aspects of commercial music production, including song selection, realization of artistic vision, studio selection, musician and vocal staff selection, coaching for optimal performance, analyzing song structure and sound quality and trouble-shooting problems in the overall artistic impression of the finished music product. Lab work includes creation and execution of a finished professional-quality music production. | Prerequisites: A grade of C or better in [(MTC101 and MTC103) or (MTC105 and MTC106)], and (MUC112, MUC192, and MUC295), or permission of Instructor. | | Occ | L+L 4.0 5.0 0.0 | L |
| MUC241 | 2017 Fall | Business Principles of Music Production | | Operation, scope, roles and responsibilities in the commercial music production process. Focuses on business aspects of commercial music production, including project management, budgeting, production personnel, deal structures, revenue sources, copyright, publishing | Prerequisites: A grade of C or better in (MUC109 and MUC110) or permission of Instructor. | | Occ | LEC 3.0 3.0 0.0 | L |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | percentages and career strategies. | | | | | |
| MUC242 | 2017 Fall | Music Genres and Styles | | Operation and development of creative skills in the commercial music production process. Geared towards music producers and emphasizing analysis and comprehension of commercial music styles and genres, including: pop, country, rock, soul, rhythm and blues, funk, and hip-hop. Study of the thematic organization of popular musical styles. | Prerequisites: None. | | Occ | LEC 2.0 2.0 0.0 | L |
| MUC261 | 2023 Fall | Modern Arranging I | | Basic arranging techniques as used in jazz and rock idioms for combo and special ensembles. Idiomatic uses of harmony, melodic rhythm, voicing, tonal color and notation. | Prerequisites: A grade of C or better in MUP164 and MUP165 or permission of Instructor. | MUC261 may be repeated for a total of six (6) credit hours. | Occ | LEC 3.0 3.0 3.0 | S |
| MUC262 | 2023 Fall | Modern Arranging II | | Arranging for larger ensembles, including strings, jazz ensemble, woodwinds and synthesizers. Detailed study of harmony, form and orchestration. | Prerequisites: A grade of C or better in MUC261 or permission of Instructor. | MUC262 may be repeated for a total of six (6) credit hours. | Occ | LEC 3.0 3.0 3.0 | S |
| MUC274 | 2017 Fall | Music Industry Study Tour | | A tour of the music industry outside the metropolitan Phoenix area. Includes a variety of experiences and activities to enhance awareness of professional opportunities and careers. | Prerequisites: None. | Additional expenses will apply students responsible for travel expenses. MUC274 may be repeated for a total of ten (10) credit hours. | Occ | LAB 2.0 2.0 0.0 | L |
| MUC280 | 2018 Fall | Recording Studio Maintenance | | Introduction to the techniques, electronics, and tools used to perform basic recording studio, live sound, and electronic musical instrument equipment maintenance | Prerequisites: A grade of C or better in MUC195AA or MUC111 or permission of instructor. | | Occ | L+L 3.0 3.0 3.0 | T |
| MUC281 | 2023 Fall | Electronic Music III | | Continued study of the production of music using electronic processes. Emphasis on more complex configurations and their | Prerequisites: A grade of C or better in MUC192. | | Occ | L+L 3.0 4.0 4.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | applications in live performance or studio use. | | | | | |
| MUC289 | 2020 Fall | Live Sound Reinforcement III | | Focus on audio engineering and media production for performances and events. The course will cover advanced audio concepts and techniques, basic lighting, rigging, and media. Students will apply their knowledge assisting as part of productions, events, advanced projects or other activities related to the course material. | Prerequisites: A grade of C or better in MUC198. | | Occ | L+L 3.0 6.0 6.0 | T |
| MUC290AA | 2017 Fall | Music Business Internship | | Music Business Internship work experience. Perform a variety of activities, to fulfill the routines and responsibilities of the department or business where the internship is served. Eighty (80) hours of designated work per credit. | Prerequisites: Permission of Department or Division. | MUC290AA may be repeated for a total of twelve (12) credit hours. | Occ | L+L 1.0 1.0 0.0 | C |
| MUC291AA | 2014 Fall | Disc Jockey Internship | | Disc Jockey (DJ) internship work experience, which may include emcee-rapping and/or electronic dance music production, under the supervision of an experienced industry professional. Perform a variety of activities to fulfill the routines and responsibilities of the department or business where the internship is served. | Prerequisites: Permission of Department or Division. | MUC291AA requires a minimum of eighty (80) hours of designated work per credit. MUC291AA may be repeated for a total of twelve (12) credit hours. | Occ | L+L 1.0 1.0 0.0 | C |
| MUC292 | 2020 Fall | Sound Design III | | Advanced Sound Design Production for Multimedia: Designed to provide an atmosphere of team research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. | Prerequisites: A grade of C or better in MUC222, or permission of Instructor. | | Occ | L+L 3.0 6.0 6.0 | T |
| MUC293 | 2020 Fall | Self Promotion for Music | | Designed to provide the skills and knowledge required for effective self-promotion. | Prerequisites: None. | | Occ | LEC 1.0 1.0 1.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Focus on career goal development, market analysis, communication and networking skills, and the development of a self-promotional campaign. | | | | | |
| MUC294 | 2017 Fall | Portfolio for Music | | Includes developing a portfolio that demonstrates music related skills and marketing of songs, recordings, and musical performances. | Prerequisites: A grade of C or better in MUC293. | | Occ | LEC 1.0 1.0 0.0 | L |
| MUC295 | 2018 Fall | Studio Music Recording III | | Producing and engineering a recording project. Covers how recording studios work and how recording projects are organized from pre-production through delivery of the final mix. | Prerequisites: A grade of C or better in MUC196 and (MUC111 or permission of Instructor). | | Occ | L+L 3.0 6.0 6.0 | T |
| MUC296WA | 2002 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor. | | Occ | LAB 1.0 5.0 0.0 | Z |
| MUC296WB | 2002 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify | | Occ | LAB 2.0 10.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor. | | | | |
| MUC296WC | 2002 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor. | | Occ | LAB 3.0 15.0 0.0 | Z |
| MUC296WD | 2002 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor. | | Occ | LAB 4.0 20.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| MUC297AA | 2020 Fall | Audio Production Internship | | Music Internship work experience in a business or industry. Eighty (80) hours of designated work per credit. | Prerequisites: Permission of Department or Division. | MUC297AA may be repeated for a total of twelve (12) credit hours. | Occ | L+L 1.0 1.0 0.0 | C |
| MUC297AB | 2020 Fall | Audio Production Internship | | Music Internship work experience in a business or industry eighty (80) hours of designated work per credit. | Prerequisites: A grade of C or better in MUC110. | MUC297AB may be repeated for a total of twelve (12) credit hours. | Occ | L+L 2.0 2.0 0.0 | C |
| MUC297AC | 2020 Fall | Audio Production Internship | | Music Internship work experience in a business or industry eighty (80) hours of designated work per credit. | Prerequisites: Permission of Department or Division. | MUC297AC may be repeated for a total of twelve (12) credit hours. | Occ | L+L 3.0 3.0 0.0 | C |
| MUC298AA | 2017 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. | Prerequisites: Permission of Program Director or Instructor. | | Occ | LAB 1.0 1.0 0.0 | Z |
| MUC298AB | 2017 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. | Prerequisites: Permission of Program Director or Instructor. | | Occ | LAB 2.0 2.0 0.0 | Z |
| MUC298AC | 2017 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of | Prerequisites: Permission of Program Director or Instructor. | | Occ | LAB 3.0 3.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. | | | | | |
| MUE107 | 2019 Fall | Woodwinds Methods I | | Practical class with emphasis on techniques of playing and teaching woodwind instruments including embouchure, breath control, tone, mouthpiece selection, and literature. | Prerequisites: None. | | Acad | L+L 1.0 3.0 3.0 | T |
| MUE108 | 2019 Fall | Percussion Methods I | | Practical class with emphasis on techniques of playing and teaching percussion instruments including hand position, rudiments, stick control, and elements of reading rhythms. | Prerequisites: None. | | Acad | L+L 1.0 3.0 3.0 | T |
| MUE109 | 2019 Fall | Brass Methods I | | Practical class with emphasis on techniques of playing and teaching brass instruments including embouchure, breath control, tone, and literature. | Prerequisites: None. | | Acad | L+L 1.0 3.0 3.0 | T |
| MUE110 | 2019 Fall | Strings Methods I | | Practical class with emphasis on techniques of playing and teaching string instruments including tone control and literature. | Prerequisites: None. | | Acad | L+L 1.0 3.0 3.0 | T |
| MUE111 | 2019 Fall | Guitar Methods | | Practical class with emphasis on both classical and popular techniques, methods, materials, solo/ensemble literature and repertoire used in all levels of guitar. Instructional approaches to the guitar as both a harmonizing instrument and in an ensemble setting. | Prerequisites: None. | | Acad | L+L 1.0 3.0 3.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| MUE207 | 2019 Fall | Woodwinds Methods II | | Continuation of Woodwinds Methods I with additional emphasis on skills including ensemble performance, transposition, increasing range and literature. | Prerequisites: A grade of C or better in MUE107 or permission of Instructor. | | Acad | L+L 1.0 3.0 3.0 | T |
| MUE208 | 2019 Fall | Percussion Methods II | | Continuation of Percussion Methods I with additional emphasis on ensemble techniques and representative literature. | Prerequisites: A grade of C or better in MUE108 or permission of Instructor. | | Acad | L+L 1.0 3.0 3.0 | T |
| MUE209 | 2023 Fall | Brass Methods II | | Continuation of Brass Methods I with additional focus on skills including ensemble performance, transposition, increasing range and solo literature. | Prerequisites: A grade of C or better in MUE109 or permission of Instructor. | | Acad | L+L 1.0 3.0 3.0 | T |
| MUE210 | 2019 Fall | Strings Methods II | | Continuation of String Methods I with additional focus on skills including fingering and bowing techniques, and solo/ensemble literature. | Prerequisites: A grade of C or better in MUE110 or permission of Instructor. | | Acad | L+L 1.0 3.0 3.0 | T |
| MUE240 | 2019 Fall | Introduction to Choral Methods | | Overview of techniques, methods, materials, style characteristics, and repertoire used in directing choral music at the secondary level including simulated teaching, conducting, and the demonstration of vocal and choral performance practices. | Prerequisites: None. | | Acad | L+L 1.0 3.0 3.0 | T |
| MUE250 | 2023 Fall | Vocal Pedagogy/Voice Methods | | Study of the anatomy, physiology, and acoustics of singing as applied to healthy vocal function and the teaching of singing. Topics include: overview of techniques, materials, and literature used in teaching singing. | Prerequisites: None. | | Acad | L+L 1.0 3.0 3.0 | T |
| MUE296WA | 2023 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome | Prerequisites: Completion of at least twelve (12) college credits, minimum 2.6 grade point average | | | LAB 1.0 5.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | related to the career objectives of the students. | and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor. | | | | |
| MUE296WB | 2023 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. | Prerequisites: Completion of at least twelve (12) college credits, minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor. | | Acad | LAB 2.0 10.0 0.0 | Z |
| MUE296WC | 2023 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. | Prerequisites: Completion of at least twelve (12) college credits, minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's | Acad | | LAB 3.0 15.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | major or career interest or with permission of the Instructor. | | | | |
| MUE296WD | 2023 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. | Prerequisites: Completion of at least twelve (12) college credits, minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor. | | Acad | LAB 4.0 20.0 0.0 | Z |
| MUE298AA | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | Prerequisites: Permission of Program Director or Instructor. | | Acad | LAB 1.0 1.0 0.0 | Z |
| MUE298AB | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment | Prerequisites: Permission of Program Director or Instructor. | | Acad | LAB 2.0 2.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | | | | | |
| MUE298AC | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | Prerequisites: Permission of Program Director or Instructor. | | Acad | LAB 3.0 3.0 0.0 | Z |
| MUP100 | 2021 Fall | Introduction to Digital Musicianship | | A music performance class that provides foundational skills in the use of digital concepts, tools, software applications, and technology to improve performance ability and music making concepts that align with current trends in the music industry. | Prerequisites: None. | MUP100 may be repeated for credit. | Occ | LEC 2.0 2.0 2.0 | S |
| MUP101AA | 2020 Fall | Private Instruction: Voice | | Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four-course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, | Prerequisites: None. | MUP101AA may be repeated for credit. | Occ | L+L 1.0 0.6 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | violoncello, contrabass, bass guitar, percussion, and harp. | | | | | |
| MUP101AD | 2017 Fall | Private Instruction: Piano | | Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp. | Prerequisites: None. | MUP101AD may be repeated for credit. | Occ | L+L 1.0 0.6 0.0 | Z |
| MUP101AG | 2017 Fall | Private Instruction: Harpsichord | | Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp. | Prerequisites: None. | MUP101AG may be repeated for credit. | Occ | L+L 1.0 0.6 0.0 | Z |
| MUP101AJ | 2017 Fall | Private Instruction: Organ | | Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, | Prerequisites: None. | MUP101AJ may be repeated for credit. | Occ | L+L 1.0 0.6 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp. | | | | | |
| MUP101AM | 2017 Fall | Private Instruction: Guitar | | Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp. | Prerequisites: None. | MUP101AM may be repeated for credit. | Occ | L+L 1.0 0.6 0.0 | Z |
| MUP101AP | 2017 Fall | Private Instruction: Trumpet | | Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp. | Prerequisites: None. | MUP101AP may be repeated for credit. | Occ | L+L 1.0 0.6 0.0 | Z |
| MUP101AS | 2017 Fall | Private Instruction: French Horn | | Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, | Prerequisites: None. | MUP101AS may be repeated for credit. | Occ | L+L 1.0 0.6 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp. | | | | | |
| MUP101AV | 2017 Fall | Private Instruction: Trombone | | Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp. | Prerequisites: None. | MUP101AV may be repeated for credit. | Occ | L+L 1.0 0.6 0.0 | Z |
| MUP101AY | 2017 Fall | Private Instruction: Euphonium | | Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, euphonium, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp. | Prerequisites: None. | MUP101AY may be repeated for credit. | Occ | L+L 1.0 0.6 0.0 | Z |
| MUP101BB | 2017 Fall | Private Instruction: Tuba | | Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four course sequence required of all music majors meeting departmental requirements. | Prerequisites: None. | MUP101BB may be repeated for credit. | Occ | L+L 1.0 0.6 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp. | | | | | |
| MUP101BE | 2017 Fall | Private Instruction: Flute | | Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp. | Prerequisites: None. | MUP101BE may be repeated for credit. | Occ | L+L 1.0 0.6 0.0 | Z |
| MUP101BH | 2017 Fall | Private Instruction: Oboe | | Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp. | Prerequisites: None. | MUP101BH may be repeated for credit. | Occ | L+L 1.0 0.6 0.0 | Z |
| MUP101BK | 2017 Fall | Private Instruction: Clarinet | | Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four course sequence required of | Prerequisites: None. | MUP101BK may be repeated for credit. | Occ | L+L 1.0 0.6 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp. | | | | | |
| MUP101BN | 2017 Fall | Private Instruction: Bassoon | | Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp. | Prerequisites: None. | MUP101BN may be repeated for credit. | Occ | L+L 1.0 0.6 0.0 | Z |
| MUP101BQ | 2017 Fall | Private Instruction: Saxophone | | Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp. | Prerequisites: None. | MUP101BQ may be repeated for credit. | Occ | L+L 1.0 0.6 0.0 | Z |
| MUP101BT | 2017 Fall | Private Instruction: Violin | | Private Instruction emphasizing developmental improvement of musicianship and technique from an | Prerequisites: None. | MUP101BT may be repeated for credit. | Occ | L+L 1.0 0.6 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | entering skill level. Four course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp. | | | | | |
| MUP101BW | 2017 Fall | Private Instruction: Viola | | Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp. | Prerequisites: None. | MUP101BW may be repeated for credit. | Occ | L+L 1.0 0.6 0.0 | Z |
| MUP101BZ | 2017 Fall | Private Instruction: Violoncello | | Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp. | Prerequisites: None. | MUP101BZ may be repeated for credit. | Occ | L+L 1.0 0.6 0.0 | Z |
| MUP101CC | 2017 Fall | Private Instruction: Contrabass | | Private Instruction emphasizing developmental | Prerequisites: None. | MUP101CC may be repeated for credit. | Occ | L+L 1.0 0.6 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | improvement of musicianship and technique from an entering skill level. Four course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp. | | | | | |
| MUP101CF | 2020 Fall | Private Instruction: Popular Music Bass Guitar | | Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four-course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, harp, turntablism and electronic music. | Prerequisites: None. | MUP101CF may be repeated for credit. | Occ | L+L 1.0 0.6 0.0 | Z |
| MUP101CI | 2017 Fall | Private Instruction: Percussion | | Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, | Prerequisites: None. | MUP101CI may be repeated for credit. | Occ | L+L 1.0 0.6 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | violoncello, contrabass, bass guitar, percussion, and harp. | | | | | |
| MUP101CJ | 2017 Fall | Private Instruction: Harp | | Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four course sequence required of all music majors meetint departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp. | Prerequisites: None. | MUP101CJ may be repeated for credit. | Occ | L+L 1.0 0.6 0.0 | Z |
| MUP101CK | 2020 Fall | Private Instruction: Popular Music Voice | | Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four-course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, harp, turntablism and electronic music. | Prerequisites: None. | MUP101CK may be repeated for credit. | Occ | L+L 1.0 0.6 0.0 | Z |
| MUP101CL | 2020 Fall | Private Instruction: Popular Music Piano | | Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four-course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, | Prerequisites: None. | MUP101CL may be repeated for credit. | Occ | L+L 1.0 0.6 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, harp, turntablism and electronic music. | | | | | |
| MUP101CM | 2020 Fall | Private Instruction: Popular Music Guitar | | Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four-course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, harp, turntablism and electronic music. | Prerequisites: None. | MUP101CM may be repeated for credit. | Occ | L+L 1.0 0.6 0.0 | Z |
| MUP101CN | 2020 Fall | Private Instruction: Popular Music Drum | | Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four-course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, harp, turntablism and electronic music. | Prerequisites: None. | MUP101CN may be repeated for credit. | Occ | L+L 1.0 0.6 0.0 | Z |
| MUP101CO | 2020 Fall | Private Instruction: Popular Music Production | | Private Instruction emphasizing developmental | Prerequisites: None. | MUP101CO may be repeated for credit. | Occ | L+L 1.0 0.6 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | improvement of musicianship and technique from an entering skill level. Four-course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, harp, turntablism and electronic music. | | | | | |
| MUP101CP | 2020 Fall | Private Instruction: Popular Electronic Music Performance | | Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four-course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, harp, turntablism and electronic music. | Prerequisites: None. | MUP101CP may be repeated for credit. | Occ | L+L 1.0 0.6 0.0 | Z |
| MUP101CQ | 2020 Fall | Private Instruction: Popular Music Turntablism | | Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four-course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, | Prerequisites: None. | MUP101CQ may be repeated for credit. | Occ | L+L 1.0 0.6 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, harp, turntablism and electronic music. | | | | | |
| MUP102AA | 2020 Fall | Private Instruction: Voice | | Private Instruction emphasizing musicianship, literature, technique and performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp. | Prerequisites: None. | MUP102AA may be repeated for credit. | Occ | L+L 2.0 1.2 0.0 | Z |
| MUP102AD | 2017 Fall | Private Instruction: Piano | | Private Instruction emphasizing musicianship, literature, technique and performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp. | Prerequisites: None. | MUP102AD may be repeated for credit. | Occ | L+L 2.0 1.2 0.0 | Z |
| MUP102AG | 2017 Fall | Private Instruction: Harpsichord | | Private Instruction emphasizing musicianship, literature, technique and performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, | Prerequisites: None. | MUP102AG may be repeated for credit. | Occ | L+L 2.0 1.2 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp. | | | | | |
| MUP102AJ | 2017 Fall | Private Instruction: Organ | | Private Instruction emphasizing musicianship, liturature, technique and performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp. | Prerequisites: None. | MUP102AJ may be repeated for credit. | Occ | L+L 2.0 1.2 0.0 | Z |
| MUP102AM | 2017 Fall | Private Instruction: Guitar | | Private Instruction emphasizing musicianship, literature, technique and performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp. | Prerequisites: None. | MUP102AM may be repeated for credit. | Occ | L+L 2.0 1.2 0.0 | Z |
| MUP102AP | 2017 Fall | Private Instruction: Trumpet | | Private Instruction emphasizing musicianship, literature, technique and performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, | Prerequisites: None. | MUP102AP may be repeated for credit. | Occ | L+L 2.0 1.2 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp. | | | | | |
| MUP102AS | 2017 Fall | Private Instruction: French Horn | | Private Instruction emphasizing musicianship, literature, technique and performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp. | Prerequisites: None. | MUP102AS may be repeated for credit. | Occ | L+L 2.0 1.2 0.0 | Z |
| MUP102AV | 2017 Fall | Private Instruction: Trombone | | Private Instruction emphasizing musicianship, literature, technique and performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp. | Prerequisites: None. | MUP102AV may be repeated for credit. | Occ | L+L 2.0 1.2 0.0 | Z |
| MUP102AY | 2017 Fall | Private Instruction: Euphonium | | Private Instruction emphasizing musicianship, literature, technique and performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, euphonium, tuba, flute, oboe, clarinet, bassoon, | Prerequisites: None. | MUP102AY may be repeated for credit. | Occ | L+L 2.0 1.2 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp. | | | | | |
| MUP102BB | 2017 Fall | Private Instruction: Tuba | | Private Instruction emphasizing musicianship, literature, technique and performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp. | Prerequisites: None. | MUP102BB may be repeated for credit. | Occ | L+L 2.0 1.2 0.0 | Z |
| MUP102BE | 2017 Fall | Private Instruction: Flute | | Private Instruction emphasizing musicianship, literature, technique and performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp. | Prerequisites: None. | MUP102BE may be repeated for credit. | Occ | L+L 2.0 1.2 0.0 | Z |
| MUP102BH | 2017 Fall | Private Instruction: Oboe | | Private Instruction emphasizing musicianship, literature, technique and performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, | Prerequisites: None. | MUP102BH may be repeated for credit. | Occ | L+L 2.0 1.2 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | violoncello, contrabass, bass guitar, percussion, and harp. | | | | | |
| MUP102BK | 2017 Fall | Private Instruction: Clarinet | | Private Instruction emphasizing musicianship, literature, technique and performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp. | Prerequisites: None. | MUP102BK may be repeated for credit. | Occ | L+L 2.0 1.2 0.0 | Z |
| MUP102BN | 2017 Fall | Private Instruction: Bassoon | | Private Instruction emphasizing musicianship, literature, technique and performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp. | Prerequisites: None. | MUP102BN may be repeated for credit. | Occ | L+L 2.0 1.2 0.0 | Z |
| MUP102BQ | 2017 Fall | Private Instruction: Saxophone | | Private Instruction emphasizing musicianship, literature, technique and performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, | Prerequisites: None. | MUP102BQ may be repeated for credit. | Occ | L+L 2.0 1.2 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | violoncello, contrabass, bass guitar, percussion, and harp. | | | | | |
| MUP102BT | 2017 Fall | Private Instruction: Violin | | Private Instruction emphasizing musicianship, literature, technique and performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp. | Prerequisites: None. | MUP102BT may be repeated for credit. | Occ | L+L 2.0 1.2 0.0 | Z |
| MUP102BW | 2017 Fall | Private Instruction: Viola | | Private Instruction emphasizing musicianship, literature, technique and performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp. | Prerequisites: None. | MUP102BW may be repeated for credit. | Occ | L+L 2.0 1.2 0.0 | Z |
| MUP102BZ | 2017 Fall | Private Instruction: Violoncello | | Private Instruction emphasizing musicianship, literature, technique and performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, | Prerequisites: None. | MUP102BZ may be repeated for credit. | Occ | L+L 2.0 1.2 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | violoncello, contrabass, bass guitar, percussion, and harp. | | | | | |
| MUP102CC | 2017 Fall | Private Instruction: Contrabass | | Private Instruction emphasizing musicianship, literature, technique and performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp. | Prerequisites: None. | MUP102CC may be repeated for credit. | Occ | L+L 2.0 1.2 0.0 | Z |
| MUP102CF | 2020 Fall | Private Instruction: Popular Music Bass Guitar | | Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four-course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, harp, turntablism and electronic music. | Prerequisites: None. | MUP102CF may be repeated for credit. | Occ | L+L 2.0 1.2 0.0 | Z |
| MUP102CI | 2017 Fall | Private Instruction: Percussion | | Private Instruction emphasizing musicianship, literature, technique and performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, | Prerequisites: None. | MUP102CI may be repeated for credit. | Occ | L+L 2.0 1.2 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp. | | | | | |
| MUP102CJ | 2017 Fall | Private Instruction: Harp | | Private Instruction emphasizing musicianship, literature, technique and performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp. | Prerequisites: None. | MUP102CJ may be repeated for credit. | Occ | L+L 2.0 1.2 0.0 | Z |
| MUP102CK | 2020 Fall | Private Instruction: Popular Music Voice | | Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four-course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, harp, turntablism and electronic music. | Prerequisites: None. | MUP102CK may be repeated for credit. | Occ | L+L 2.0 1.2 0.0 | Z |
| MUP102CL | 2020 Fall | Private Instruction: Popular Music Piano | | Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four-course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, | Prerequisites: None. | MUP102CL may be repeated for credit. | Occ | L+L 2.0 1.2 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, harp, turntablism and electronic music. | | | | | |
| MUP102CM | 2020 Fall | Private Instruction: Popular Music Guitar | | Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four-course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, harp, turntablism and electronic music. | Prerequisites: None. | MUP102CM may be repeated for credit. | Occ | L+L 2.0 1.2 0.0 | Z |
| MUP102CN | 2020 Fall | Private Instruction: Popular Music Drum | | Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four-course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, harp, turntablism and electronic music. | Prerequisites: None. | MUP102CN may be repeated for credit. | Occ | L+L 2.0 1.2 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| MUP102CO | 2020 Fall | Private Instruction: Popular Music Production | | Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four-course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, harp, turntablism and electronic music. | Prerequisites: None. | MUP102CO may be repeated for credit. | Occ | L+L 2.0 1.2 0.0 | Z |
| MUP102CP | 2020 Fall | Private Instruction: Popular Electronic Music Performance | | Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four-course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, harp, turntablism and electronic music. | Prerequisites: None. | MUP102CP may be repeated for credit. | Occ | L+L 2.0 1.2 0.0 | Z |
| MUP102CQ | 2020 Fall | Private Instruction: Popular Music Turntablism | | Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four-course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, | Prerequisites: None. | MUP102CQ may be repeated for credit. | Occ | L+L 2.0 1.2 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, harp, turntablism and electronic music. | | | | | |
| MUP110 | 2017 Fall | Concert Music | | Attendance at concerts, recitals and music lectures on and off campus. Required each semester for all music majors | Prerequisites: None. | | Occ | LEC 0.5 0.5 0.5 | S |
| MUP123AA | 2018 Fall | Studio Class/Piano | | Performance and laboratory class for students enrolled in private piano instruction. Emphasis on demonstration and discussion of specific piano problems. | Prerequisites: None. Corequisites: Private Piano Instruction. | MUP123AA may be repeated for credit. | Occ | L+L 0.5 0.5 0.5 | T |
| MUP123AB | 2018 Fall | Studio Class/Voice | | Performance and laboratory class for students enrolled in private voice instruction. Emphasis on demonstration and discussion of specific vocal problems. | Prerequisites: None. Corequisites: Private Voice Instruction. | MUP123AB may be repeated for credit. | Occ | L+L 0.5 0.5 0.5 | T |
| MUP123AC | 2018 Fall | Studio Class/Guitar | | Performance and laboratory class for students enrolled in private guitar instruction. Emphasis on demonstration and discussion of specific guitar problems | Prerequisites: None. Corequisites: Private Guitar Instruction. | MUP123AC may be repeated for credit. | Occ | L+L 0.5 0.5 0.5 | T |
| MUP123AD | 2018 Fall | Studio Class: Instrumental | | Performance and laboratory class for students enrolled in private instrumental instruction. Emphasis on demonstration and discussion of specific instrumental problems. | Prerequisites: None. Corequisites: Private Instrumental Instruction. | MUP123AD may be repeated for credit. | Occ | L+L 0.5 0.5 0.5 | T |
| MUP123AE | 2018 Fall | Studio Class: Jazz Styles | | Performance and laboratory class for students enrolled in private jazz styles instruction. Emphasis on demonstration and discussion of specific jazz styles problems. | Prerequisites: None. Corequisites: Private Jazz Styles Instruction. | MUP123AE may be repeated for credit. | Occ | L+L 0.5 0.5 0.5 | T |
| MUP127 | 2019 Fall | Class Guitar I | | Emphasis on note-reading and folk-style harmonic | Prerequisites: None. | | Occ | L+L 1.0 3.0 3.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | accompaniment. Includes finger-style playing. Stresses development of efficient practice techniques and proper sitting and hand positions. | | | | | |
| MUP128 | 2019 Fall | Class Guitar II | | Note-reading range including second position and parts of higher positions. Classical, popular, Latin, and other styles of music. Theory including scales, keys, and chord construction. Technical exercises of both hands. | Prerequisites: A grade of C or better in MUP127 or permission of Instructor. | | Occ | L+L 1.0 3.0 3.0 | T |
| MUP130 | 2023 Fall | Introduction to Class Piano | | Basic introduction to piano techniques and fundamentals of music including hand position, sight-reading of both melodic and harmonic materials, and the introduction of scale patterns. Designed for those with little or no piano experience. | Prerequisites: None. | | Occ | L+L 1.0 3.0 3.0 | T |
| MUP131 | 2023 Fall | Class Piano I | | Development of beginning piano techniques and the fundamentals of music including basic hand position, music-reading skills of melodic and harmonic material, major scales, transposition, and harmonizations including the I, IV, V7 chords. | Prerequisites: None. | | Occ | L+L 1.0 3.0 3.0 | T |
| MUP132 | 2023 Fall | Class Piano II | | Continuation of Piano I with emphasis on elementary piano techniques including major and minor scales, transposition, improvisation, and sight reading. | Prerequisites: A grade of C or better in MUP131 or permission of Instructor. | | Occ | L+L 1.0 3.0 3.0 | T |
| MUP133 | 2019 Fall | Class Voice I | | Introduction to the fundamentals of vocal production. Emphasis on breathing techniques, tone production and performances in class of solo vocal literature. | Prerequisites: None. | | Occ | L+L 1.0 3.0 3.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| MUP134 | 2019 Fall | Class Voice II | | Continuation of Class Voice I including the elements of stage presence and diction. | Prerequisites: A grade of C or better in MUP133 or permission of Instructor. | | Occ | L+L 1.0 3.0 3.0 | T |
| MUP135 | 2018 Fall | Class Native American Flute I | | Practical class with emphasis on playing, including embouchure, breath control, finger control, reading from printed score and improvising songs. | Prerequisites: None. | MUP135 may be repeated for up to six (6) credits. | Occ | L+L 2.0 3.0 3.0 | T |
| MUP140 | 2007 Summer I | Elementary Piano Pedagogy | | An overview of techniques, methods, materials, stylistic characteristics, and repertoire used in teaching piano to students at the early and late elementary levels including creating a studio policy, simulated teaching, and observing private instruction and group piano classes. | Prerequisites: Permission of Instructor or department or division. | | Occ | LEC 2.0 2.0 2.0 | S |
| MUP141 | 2007 Summer I | Intermediate Piano Pedagogy | | Overview of techniques, methods, materials, stylistic characteristics, and repertoire used in teaching piano students at the intermediate and early advanced levels including simulated teaching, performance and competition preparation, and observing private instruction and group piano classes. | Prerequisites: Permission of Instructor or department or division. | | Occ | LEC 2.0 2.0 2.0 | S |
| MUP149 | 2018 Fall | Gospel Chorus | | A mixed chorus with emphasis on college/community participation and preparation of a variety of Gospel Music for public performance. Auditions may be required. | Prerequisites: None. | MUP149 may be repeated for credit. | Occ | L+L 1.0 3.0 3.0 | T |
| MUP150 | 2018 Fall | Community Chorus | | A mixed chorus with emphasis on college/community participation and preparation of a variety of choral literature for public performance. Auditions may be required. | Prerequisites: None. | MUP150 may be repeated for credit. | Occ | L+L 1.0 3.0 3.0 | T |
| MUP151AA | 2020 Fall | Private Instruction: Voice | | Private Instruction emphasizing developmental improvement of musicianship | Prerequisites: A grade of C or better in MUP101AA. | MUP151AA may be repeated for credit. | Occ | L+L 1.0 0.6 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | and technique from an entering skill level. Four-course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp. | | | | | |
| MUP151AD | 2017 Fall | Private Instruction: Piano | | Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp. | Prerequisites: A grade of C or better in MUP101AD. | MUP151AD may be repeated for credit. | Occ | L+L 1.0 0.6 0.0 | Z |
| MUP151AG | 2017 Fall | Private Instruction: Harpsichord | | Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp. | Prerequisites: A grade of C or better in MUP101AG. | MUP151AG may be repeated for credit. | Occ | L+L 1.0 0.6 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| MUP151AJ | 2017 Fall | Private Instruction: Organ | | Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp. | Prerequisites: A grade of C or better in MUP101AJ. | MUP151AJ may be repeated for credit. | Occ | L+L 1.0 0.6 0.0 | Z |
| MUP151AM | 2017 Fall | Private Instruction: Guitar | | Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp. | Prerequisites: A grade of C or better in MUP101AM. | MUP151AM may be repeated for credit. | Occ | L+L 1.0 0.6 0.0 | Z |
| MUP151AP | 2017 Fall | Private Instruction: Trumpet | | Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, | Prerequisites: A grade of C or better in MUP101AP. | MUP151AP may be repeated for credit. | Occ | L+L 1.0 0.6 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | violoncello, contrabass, bass guitar, percussion, and harp. | | | | | |
| MUP151AS | 2017 Fall | Private Instruction: French Horn | | Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp. | Prerequisites: A grade of C or better in MUP101AS. | MUP151AS may be repeated for credit. | Occ | L+L 1.0 0.6 0.0 | Z |
| MUP151AV | 2017 Fall | Private Instruction: Trombone | | Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp. | Prerequisites: A grade of C or better in MUP101AV. | MUP151AV may be repeated for credit. | Occ | L+L 1.0 0.6 0.0 | Z |
| MUP151AY | 2017 Fall | Private Instruction: Euphonium | | Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, euphonium, tuba, | Prerequisites: A grade of C or better in MUP101AY. | MUP151AY may be repeated for credit. | Occ | L+L 1.0 0.6 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, and percussion. | | | | | |
| MUP151BB | 2017 Fall | Private Instruction: Tuba | | Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp. | Prerequisites: A grade of C or better in MUP101BB. | MUP151BB may be repeated for credit. | Occ | L+L 1.0 0.6 0.0 | Z |
| MUP151BE | 2017 Fall | Private Instruction: Flute | | Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp. | Prerequisites: A grade of C or better in MUP101BE. | MUP151BE may be repeated for credit. | Occ | L+L 1.0 0.6 0.0 | Z |
| MUP151BH | 2017 Fall | Private Instruction: Oboe | | Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, | Prerequisites: A grade of C or better in MUP101BH. | MUP151BH may be repeated for credit. | Occ | L+L 1.0 0.6 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp. | | | | | |
| MUP151BK | 2017 Fall | Private Instruction: Clarinet | | Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp. | Prerequisites: A grade of C or better in MUP101BK. | MUP151BK may be repeated for credit. | Occ | L+L 1.0 0.6 0.0 | Z |
| MUP151BN | 2017 Fall | Private Instruction: Bassoon | | Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp. | Prerequisites: A grade of C or better in MUP101BN. | MUP151BN may be repeated for credit. | Occ | L+L 1.0 0.6 0.0 | Z |
| MUP151BQ | 2017 Fall | Private Instruction: Saxophone | | Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four course sequence required of all music majors meeting departmental requirements. | Prerequisites: A grade of C or better in MUP101BQ. | MUP151BQ may be repeated for credit. | Occ | L+L 1.0 0.6 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp. | | | | | |
| MUP151BT | 2017 Fall | Private Instruction: Violin | | Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp. | Prerequisites: A grade of C or better in MUP101BT. | MUP151BT may be repeated for credit. | Occ | L+L 1.0 0.6 0.0 | Z |
| MUP151BW | 2017 Fall | Private Instruction: Viola | | Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp. | Prerequisites: A grade of C or better in MUP101BW. | MUP151BW may be repeated for credit. | Occ | L+L 1.0 0.6 0.0 | Z |
| MUP151BZ | 2017 Fall | Private Instruction: Violoncello | | Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four course sequence required of | Prerequisites: A grade of C or better in MUP101BZ. | MUP151BZ may be repeated for credit. | Occ | L+L 1.0 0.6 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp. | | | | | |
| MUP151CC | 2017 Fall | Private Instruction: Contrabass | | Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp. | Prerequisites: A grade of C or better in MUP101CC. | MUP151CC may be repeated for credit. | Occ | L+L 1.0 0.6 0.0 | Z |
| MUP151CF | 2020 Fall | Private Instruction: Popular Music Bass Guitar | | Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four-course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, harp, turntablism and electronic music. | Prerequisites: A grade of C or better in MUP101CF. | MUP151CF may be repeated for credit. | Occ | L+L 1.0 0.6 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| MUP151CI | 2017 Fall | Private Instruction: Percussion | | Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp. | Prerequisites: A grade of C or better in MUP101CI. | MUP151CI may be repeated for credit. | Occ | L+L 1.0 0.6 0.0 | Z |
| MUP151CJ | 2017 Fall | Private Instruction: Harp | | Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp. | Prerequisites: A grade of C or better in MUP101CJ. | MUP151CJ may be repeated for credit. | Occ | L+L 1.0 0.6 0.0 | Z |
| MUP151CK | 2020 Fall | Private Instruction: Popular Music Voice | | Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four-course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, | Prerequisites: A grade of C or better in MUP101CK. | MUP151CK may be repeated for credit. | Occ | L+L 1.0 0.6 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | violoncello, contrabass, bass guitar, percussion, harp, turntablism and electronic music. | | | | | |
| MUP151CL | 2020 Fall | Private Instruction: Popular Music Piano | | Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four-course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, harp, turntablism and electronic music. | Prerequisites: A grade of C or better in MUP101CL. | MUP151CL may be repeated for credit. | Occ | L+L 1.0 0.6 0.0 | Z |
| MUP151CM | 2020 Fall | Private Instruction: Popular Music Guitar | | Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four-course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, harp, turntablism and electronic music. | Prerequisites: A grade of C or better in MUP101CM. | MUP151CM may be repeated for credit. | Occ | L+L 1.0 0.6 0.0 | Z |
| MUP151CN | 2020 Fall | Private Instruction: Popular Music Drum | | Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four-course sequence required of | Prerequisites: A grade of C or better in MUP101CN. | MUP151CN may be repeated for credit. | Occ | L+L 1.0 0.6 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, harp, turntablism and electronic music. | | | | | |
| MUP151CO | 2020 Fall | Private Instruction: Popular Music Production | | Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four-course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, harp, turntablism and electronic music. | Prerequisites: A grade of C or better in MUP101CO. | MUP151CO may be repeated for credit. | Occ | L+L 1.0 0.6 0.0 | Z |
| MUP151CP | 2020 Fall | Private Instruction: Popular Electronic Music Performance | | Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four-course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, harp, | Prerequisites: A grade of C or better in MUP101CP. | MUP151CP may be repeated for credit. | Occ | L+L 1.0 0.6 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | turntablism and electronic music. | | | | | |
| MUP151CQ | 2020 Fall | Private Instruction: Popular Music Turntablism | | Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four-course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, harp, turntablism and electronic music. | Prerequisites: A grade of C or better in MUP101CQ. | MUP151CQ may be repeated for credit. | Occ | L+L 1.0 0.6 0.0 | Z |
| MUP152AA | 2020 Fall | Private Instruction: Voice | | Private Instruction emphasizing musicianship, literature, technique and performance. Four-course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp. | Prerequisites: A grade of C or better in MUP102AA. | MUP152AA may be repeated for credit. | Occ | L+L 2.0 1.2 0.0 | Z |
| MUP152AD | 2017 Fall | Private Instruction: Piano | | Private Instruction emphasizing musicianship, literature, technique and performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, | Prerequisites: A grade of C or better in MUP102AD. | MUP152AD may be repeated for credit. | Occ | L+L 2.0 1.2 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp. | | | | | |
| MUP152AG | 2017 Fall | Private Instruction: Harpsichord | | Private Instruction emphasizing musicianship, literature, technique and performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp. | Prerequisites: A grade of C or better in MUP102AG. | MUP152AG may be repeated for credit. | Occ | L+L 2.0 1.2 0.0 | Z |
| MUP152AJ | 2017 Fall | Private Instruction: Organ | | Private Instruction emphasizing musicianship, literature, technique and performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp. | Prerequisites: A grade of C or better in MUP102AJ. | MUP152AJ may be repeated for credit. | Occ | L+L 2.0 1.2 0.0 | Z |
| MUP152AM | 2017 Fall | Private Instruction: Guitar | | Private Instruction emphasizing musicianship, literature, technique and performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, | Prerequisites: A grade of C or better in MUP102AM. | MUP152AM may be repeated for credit. | Occ | L+L 2.0 1.2 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp. | | | | | |
| MUP152AP | 2017 Fall | Private Instruction: Trumpet | | Private Instruction emphasizing musicianship, literature, technique and performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp. | Prerequisites: A grade of C or better in MUP102AP. | MUP152AP may be repeated for credit. | Occ | L+L 2.0 1.2 0.0 | Z |
| MUP152AS | 2017 Fall | Private Instruction: French Horn | | Private Instruction emphasizing musicianship, literature, technique and performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp. | Prerequisites: A grade of C or better in MUP102AS. | MUP152AS may be repeated for credit. | Occ | L+L 2.0 1.2 0.0 | Z |
| MUP152AV | 2017 Fall | Private Instruction: Trombone | | Private Instruction emphasizing musicianship, literature, technique and performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, | Prerequisites: A grade of C or better in MUP102AV. | MUP152AV may be repeated for credit. | Occ | L+L 2.0 1.2 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | violoncello, contrabass, bass guitar, percussion, and harp. | | | | | |
| MUP152AY | 2017 Fall | Private Instruction: Euphonium | | Private Instruction emphasizing musicianship, literature, technique and performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, euphonium, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp. | Prerequisites: A grade of C or better in MUP102AY. | MUP152AY may be repeated for credit. | Occ | L+L 2.0 1.2 0.0 | Z |
| MUP152BB | 2017 Fall | Private Instruction: Tuba | | Private Instruction emphasizing musicianship, literature, technique and performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp. | Prerequisites: A grade of C or better in MUP102BB. | MUP152BB may be repeated for credit. | Occ | L+L 2.0 1.2 0.0 | Z |
| MUP152BE | 2017 Fall | Private Instruction: Flute | | Private Instruction emphasizing musicianship, literature, technique and performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, | Prerequisites: A grade of C or better in MUP102BE. | MUP152BE may be repeated for credit. | Occ | L+L 2.0 1.2 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | violoncello, contrabass, bass guitar, percussion, and harp. | | | | | |
| MUP152BH | 2017 Fall | Private Instruction: Oboe | | Private Instruction emphasizing musicianship, literature, technique and performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp. | Prerequisites: A grade of C or better in MUP102BH. | MUP152BH may be repeated for credit. | Occ | L+L 2.0 1.2 0.0 | Z |
| MUP152BK | 2017 Fall | Private Instruction: Clarinet | | Private Instruction emphasizing musicianship, literature, technique and performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp. | Prerequisites: A grade of C or better in MUP102BK. | MUP152BK may be repeated for credit. | Occ | L+L 2.0 1.2 0.0 | Z |
| MUP152BN | 2017 Fall | Private Instruction: Bassoon | | Private Instruction emphasizing musicianship, literature, technique and performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, | Prerequisites: A grade of C or better in MUP102BN. | MUP152BN may be repeated for credit. | Occ | L+L 2.0 1.2 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | violoncello, contrabass, bass guitar, percussion, and harp. | | | | | |
| MUP152BQ | 2017 Fall | Private Instruction: Saxophone | | Private Instruction emphasizing musicianship, literature, technique and performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp. | Prerequisites: A grade of C or better in MUP102BQ. | MUP152BQ may be repeated for credit. | Occ | L+L 2.0 1.2 0.0 | Z |
| MUP152BT | 2017 Fall | Private Instruction: Violin | | Private Instruction emphasizing musicianship, literature, technique and performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp. | Prerequisites: A grade of C or better in MUP102BT. | MUP152BT may be repeated for credit. | Occ | L+L 2.0 1.2 0.0 | Z |
| MUP152BW | 2017 Fall | Private Instruction: Viola | | Private Instruction emphasizing musicianship, literature, technique and performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, | Prerequisites: A grade of C or better in MUP102BW. | MUP152BW may be repeated for credit. | Occ | L+L 2.0 1.2 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | violoncello, contrabass, bass guitar, percussion, and harp. | | | | | |
| MUP152BZ | 2017 Fall | Private Instruction: Violoncello | | Private Instruction emphasizing musicianship, literature, technique and performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp. | Prerequisites: A grade of C or better in MUP102BZ. | MUP152BZ may be repeated for credit. | Occ | L+L 2.0 1.2 0.0 | Z |
| MUP152CC | 2017 Fall | Private Instruction: Contrabass | | Private Instruction emphasizing musicianship, literature, technique and performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp. | Prerequisites: A grade of C or better in MUP102CC. | MUP152CC may be repeated for credit. | Occ | L+L 2.0 1.2 0.0 | Z |
| MUP152CF | 2020 Fall | Private Instruction: Popular Music Bass Guitar | | Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four-course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, | Prerequisites: A grade of C or better in MUP102CF. | MUP152CF may be repeated for credit. | Occ | L+L 2.0 1.2 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | violoncello, contrabass, bass guitar, percussion, harp, turntablism and electronic music. | | | | | |
| MUP152CI | 2017 Fall | Private Instruction: Percussion | | Private Instruction emphasizing musicianship, literature, technique and performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp. | Prerequisites: A grade of C or better in MUP102CI. | MUP152CI may be repeated for credit. | Occ | L+L 2.0 1.2 0.0 | Z |
| MUP152CJ | 2017 Fall | Private Instruction: Harp | | Private Instruction emphasizing musicianship, literature, technique and performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp. | Prerequisites: A grade of C or better in MUP102CJ. | MUP152CJ may be repeated for credit. | Occ | L+L 2.0 1.2 0.0 | Z |
| MUP152CK | 2020 Fall | Private Instruction: Popular Music Voice | | Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four-course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, | Prerequisites: A grade of C or better in MUP102CK. | MUP152CK may be repeated for credit. | Occ | L+L 2.0 1.2 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, harp, turntablism and electronic music. | | | | | |
| MUP152CL | 2020 Fall | Private Instruction: Popular Music Piano | | Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four-course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, harp, turntablism and electronic music. | Prerequisites: A grade of C or better in MUP102CL. | MUP152CL may be repeated for credit. | Occ | L+L 2.0 1.2 0.0 | Z |
| MUP152CM | 2020 Fall | Private Instruction: Popular Music Guitar | | Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four-course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, harp, turntablism and electronic music. | Prerequisites: A grade of C or better in MUP102CM. | MUP152CM may be repeated for credit. | Occ | L+L 2.0 1.2 0.0 | Z |
| MUP152CN | 2020 Fall | Private Instruction: Popular Music Drum | | Private Instruction emphasizing developmental improvement of musicianship and technique from an | Prerequisites: A grade of C or better in MUP102CN. | MUP152CN may be repeated for credit. | Occ | L+L 2.0 1.2 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | entering skill level. Four-course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, harp, turntablism and electronic music. | | | | | |
| MUP152CO | 2020 Fall | Private Instruction: Popular Music Production | | Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four-course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, harp, turntablism and electronic music. | Prerequisites: A grade of C or better in MUP102CO. | MUP152CO may be repeated for credit. | Occ | L+L 2.0 1.2 0.0 | Z |
| MUP152CP | 2020 Fall | Private Instruction: Popular Electronic Music Performance | | Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four-course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, | Prerequisites: A grade of C or better in MUP102CP. | MUP152CP may be repeated for credit. | Occ | L+L 2.0 1.2 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | violoncello, contrabass, bass guitar, percussion, harp, turntablism and electronic music. | | | | | |
| MUP152CQ | 2020 Fall | Private Instruction: Popular Music Turntablism | | Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four-course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, harp, turntablism and electronic music. | Prerequisites: A grade of C or better in MUP102CQ. | MUP152CQ may be repeated for credit. | Occ | L+L 2.0 1.2 0.0 | Z |
| MUP153 | 2019 Fall | Concert Choir | | A mixed choir designed to emphasize choral techniques and performance of all styles of choral literature. Public performances are scheduled each semester. | Prerequisites: None. | MUP153 may require auditions. MUP153 may be repeated for credit. | Occ | L+L 1.0 5.0 5.0 | T |
| MUP154AA | 2018 Fall | Jazz Vocal Ensemble | | Practical and performing experience in vocal jazz. Includes music from the 1920's through the present. | Prerequisites: Auditions required or permission of Instructor. | MUP154AA may be repeated for credit. | Occ | L+L 1.0 3.0 3.0 | T |
| MUP154AB | 2018 Fall | Jazz Vocal Ensemble | | Practical and performing experience in vocal jazz. Includes music from the 1920's through the present. Requires participation in various public performances on campus and in the community throughout the semester. | Prerequisites: Auditions required and two semesters in A Cappella Choir or permission of Instructor. | MUP154AB may be repeated for credit. | Occ | L+L 2.0 5.0 5.0 | T |
| MUP155 | 2018 Fall | Handbell Choir (Bell Canto) | | Emphasis on practical and performing skills in bell ringing. Preparation of all styles of bell literature. | Prerequisites: None. | MUP155 may be repeated for credit. | Occ | L+L 1.0 3.0 3.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Scheduled public performances during the year. | | | | | |
| MUP157 | 2021 Summer | Treble Choir | | A high voice chorus designed to emphasize choral technique and performance of all styles of appropriate choral literature. Public performances are scheduled during the year. Auditions may be required. | Prerequisites: None. | MUP157 may be repeated for credit. | Occ | L+L 1.0 3.0 3.0 | T |
| MUP158 | 2018 Fall | Rock Band | | Emphasizes instrumental and vocal techniques and the preparation of all styles of rock band literature. Introduces music business. Requires participation in public and private performances throughout the semester. | Prerequisites: Auditions are required. | MUP158 may be repeated for a total of four (4) credits. | Occ | L+L 1.0 3.0 3.0 | T |
| MUP159 | 2018 Fall | Community Orchestra | | Emphasis on college/community participation and the preparation of orchestral literature for public performance. Auditions may be required. | Prerequisites: None. | MUP159 may be repeated for credit. | Occ | L+L 1.0 3.0 3.0 | T |
| MUP160 | 2019 Fall | Orchestra | | A class designed to emphasize orchestral ensemble techniques and the preparation of all styles of orchestral literature. Public performances are scheduled during the year. Auditions may be required. | Prerequisites: None. | MUP160 may be repeated for credit. | Occ | L+L 1.0 5.0 5.0 | T |
| MUP161 | 2018 Fall | Community Band | | Emphasis on college/community participation and the preparation of band literature for public performance. Auditions may be required. | Prerequisites: None. | MUP161 may be repeated for credit. | Occ | L+L 1.0 3.0 3.0 | T |
| MUP162 | 2019 Fall | Band | | Designed to emphasize instrumental techniques and the preparation of all styles of band literature for ensemble performance. Includes public performances. | Prerequisites: None. | MUP162 may require auditions. MUP162 may be repeated for credit. | Occ | L+L 1.0 5.0 5.0 | T |
| MUP163 | 2018 Fall | Jazz Ensemble | | Practical and performance experience in various jazz | Prerequisites: None. | MUP163 may be repeated for credit. Open to all students on | Occ | L+L 1.0 3.0 3.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | styles. Open to all students on the basis of auditions. | | the basis of auditions. Auditions may be required. | | | |
| MUP164 | 2019 Fall | Jazz Improvisation I | | Theoretical and performance skills in many styles of jazz improvisation. | Prerequisites: None. | MUP164 may be repeated for a total of six (6) credit hours. | Occ | L+L 2.0 3.0 3.0 | T |
| MUP165 | 2019 Fall | Jazz Improvisation II | | Intermediate theoretical and performance skills in many styles of jazz improvisation. | Prerequisites: A grade of C or better in MUP164 or permission of Instructor. | MUP165 may be repeated for a total of six (6) credit hours. | Occ | L+L 2.0 3.0 3.0 | T |
| MUP166 | 2018 Fall | Jazz Piano I | | Introduction to basic jazz piano skills, including chord construction, chord voicings, accompanying and solo piano arrangements. | Prerequisites: A grade of C or better in MUP131 or permission of Instructor. | MUP166 may be repeated for a total of four (4) credit hours. | Occ | L+L 1.0 2.0 2.0 | T |
| MUP167 | 2018 Fall | Jazz Piano II | | Continued development of jazz piano techniques with emphasis on voicing formulas for ninth, eleventh, thirteenth, and altered dominant chords | Prerequisites: A grade of C or better in MUP166 or permission of Instructor. | | Occ | L+L 1.0 2.0 2.0 | T |
| MUP168 | 2018 Fall | Mariachi Band | | Emphasis on college and community participation and the preparation of mariachi band literature for public performance. Auditions may be required. | Prerequisites: None. | MUP168 may be repeated for credit. | Occ | L+L 1.0 3.0 3.0 | T |
| MUP169 | 2023 Fall | Guitar Ensemble | | Ensemble of the entire guitar family that may include standard, requinto, alto, bass, and contrabass guitars that emphasizes guitar techniques and the preparation of all styles of guitar ensemble literature. Literature will include modern and historical guitar ensemble repertoire, new works, arrangements, and transcriptions from various musical periods and traditions as well as guitar literature from a diverse number of world musical traditions. Guitar techniques are studied and refined as they relate to the literature performed. Emphasis placed on reading and listening skills, | Prerequisites: None. | Auditions may be required. MUP169 may be repeated for credit. | Occ | L+L 1.0 3.0 3.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | rehearsal and preparation, conducting and performance cues, and performance experience in various guitar styles. Concerts presented throughout the semester. | | | | | |
| MUP171 | 2018 Fall | Opera Workshop | | A workshop in the study and performance of operatic literature. | Prerequisites: None. | MUP171 may be repeated for credit. Open to all students on the basis of auditions. Auditions may be required. | Occ | L+L 2.0 5.0 5.0 | T |
| MUP181 | 2018 Fall | Chamber Music Ensembles | | Practical and performance experience in instrumental, vocal, and mixed ensembles. | Prerequisites: None. | MUP181 may be repeated for credit. | Occ | L+L 1.0 2.0 2.0 | T |
| MUP182 | 2018 Fall | Chamber Singers | | Practical and performance experience in various styles of vocal music. | Prerequisites: None. | MUP182 may be repeated for credit. Open to all students on the basis of auditions. Auditions may be required. | Occ | L+L 1.0 3.0 3.0 | T |
| MUP183 | 2021 Fall | Jazz Combo | | Jazz Combo participation provides an opportunity for students to develop improvisational skills in a variety of styles from historical and contemporary jazz practice, while offering a creative outlet for composers and arrangers. | Prerequisites: None. | MUP183 may be repeated for credit. | Occ | L+L 1.0 2.0 2.0 | T |
| MUP185 | 2021 Fall | Flute Choir | | Ensemble of the entire flute family that may include piccolo, E flat flute, C flutes, alto flutes, and bass flute. Literature will include commissioned works, original works for standard flute choir, and transcriptions from various musical periods. | Prerequisites: None. | Auditions may be required. MUP185 may be repeated for credit. | Occ | L+L 1.0 3.0 3.0 | T |
| MUP190 | 2021 Fall | Percussion Ensemble | | Practical and performance experience in various percussion styles. Percussion literature from a diverse number of world musical traditions. Western European art music, various African traditions, Indian music, Japanese music, Indonesian music, Mexican, Central, and South American music, and | Prerequisites: None. | MUP190 may be repeated for credit. | Occ | L+L 1.0 3.0 3.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | percussion compositions from the American Experimental Tradition rehearsed and performed. Concerts presented throughout the semester. Percussion techniques are studied and refined as they relate to the literature performed. Emphasis placed on reading and listening skills, increased aesthetic discrimination. Informed performance practice and skills on all percussion instruments and traditions. | | | | | |
| MUP201AA | 2017 Fall | Private Instruction: Voice | | Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, harp and percussion. | Prerequisites: A grade of C or better in MUP151AA. | MUP201AA may be repeated for credit. | Occ | L+L 1.0 0.6 0.0 | Z |
| MUP201AD | 2017 Fall | Private Instruction: Piano | | Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, | Prerequisites: A grade of C or better in MUP151AD. | MUP201AD may be repeated for credit. | Occ | L+L 1.0 0.6 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | violoncello, contrabass, bass guitar, percussion, and harp. | | | | | |
| MUP201AG | 2017 Fall | Private Instruction: Harpsichord | | Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp. | Prerequisites: A grade of C or better in MUP151AG. | MUP201AG may be repeated for credit. | Occ | L+L 1.0 0.6 0.0 | Z |
| MUP201AJ | 2017 Fall | Private Instruction: Organ | | Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp. | Prerequisites: A grade of C or better in MUP151AJ. | MUP201AJ may be repeated for credit. | Occ | L+L 1.0 0.6 0.0 | Z |
| MUP201AM | 2017 Fall | Private Instruction: Guitar | | Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, | Prerequisites: A grade of C or better in MUP151AM. | MUP201AM may be repeated for credit. | Occ | L+L 1.0 0.6 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp. | | | | | |
| MUP201AP | 2017 Fall | Private Instruction: Trumpet | | Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp. | Prerequisites: A grade of C or better in MUP151AP. | MUP201AP may be repeated for credit. | Occ | L+L 1.0 0.6 0.0 | Z |
| MUP201AS | 2017 Fall | Private Instruction: French Horn | | Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp. | Prerequisites: A grade of C or better in MUP151AS. | MUP201AS may be repeated for credit. | Occ | L+L 1.0 0.6 0.0 | Z |
| MUP201AV | 2017 Fall | Private Instruction: Trombone | | Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, | Prerequisites: A grade of C or better in MUP151AV. | MUP201AV may be repeated for credit. | Occ | L+L 1.0 0.6 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp. | | | | | |
| MUP201AY | 2017 Fall | Private Instruction: Euphonium | | Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, euphonium, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp. | Prerequisites: A grade of C or better in MUP151AY. | MUP201AY may be repeated for credit. | Occ | L+L 1.0 0.6 0.0 | Z |
| MUP201BB | 2017 Fall | Private Instruction: Tuba | | Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp. | Prerequisites: A grade of C or better in MUP151BB. | MUP201BB may be repeated for credit. | Occ | L+L 1.0 0.6 0.0 | Z |
| MUP201BE | 2017 Fall | Private Instruction: Flute | | Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four course sequence required of all music majors meeting departmental requirements. | Prerequisites: A grade of C or better in MUP151BE. | MUP201BE may be repeated for credit. | Occ | L+L 1.0 0.6 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp. | | | | | |
| MUP201BH | 2017 Fall | Private Instruction: Oboe | | Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp. | Prerequisites: A grade of C or better in MUP151BH. | MUP201BH may be repeated for credit. | Occ | L+L 1.0 0.6 0.0 | Z |
| MUP201BK | 2017 Fall | Private Instruction: Clarinet | | Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp. | Prerequisites: A grade of C or better in MUP151BK. | MUP201BK may be repeated for credit. | Occ | L+L 1.0 0.6 0.0 | Z |
| MUP201BN | 2017 Fall | Private Instruction: Bassoon | | Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four course sequence required of | Prerequisites: A grade of C or better in MUP151BN. | MUP201BN may be repeated for credit. | Occ | L+L 1.0 0.6 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp. | | | | | |
| MUP201BQ | 2017 Fall | Private Instruction: Saxophone | | Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp. | Prerequisites: A grade of C or better in MUP151BQ. | MUP201BQ may be repeated for credit. | Occ | L+L 1.0 0.6 0.0 | Z |
| MUP201BT | 2017 Fall | Private Instruction: Violin | | Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp. | Prerequisites: A grade of C or better in MUP151BT. | MUP201BT may be repeated for credit. | Occ | L+L 1.0 0.6 0.0 | Z |
| MUP201BW | 2017 Fall | Private Instruction: Viola | | Private Instruction emphasizing developmental improvement of musicianship and technique from an | Prerequisites: A grade of C or better in MUP151BW. | MUP201BW may be repeated for credit. | Occ | L+L 1.0 0.6 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | entering skill level. Four course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp. | | | | | |
| MUP201BZ | 2017 Fall | Private Instruction: Violoncello | | Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp. | Prerequisites: A grade of C or better in MUP151BZ. | MUP201BZ may be repeated for credit. | Occ | L+L 1.0 0.6 0.0 | Z |
| MUP201CC | 2017 Fall | Private Instruction: Contrabass | | Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp. | Prerequisites: A grade of C or better in MUP151CC. | MUP201CC may be repeated for credit. | Occ | L+L 1.0 0.6 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| MUP201CF | 2020 Fall | Private Instruction: Popular Music Bass Guitar | | Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four-course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, harp, turntablism and electronic music. | Prerequisites: A grade of C or better in MUP151CF. | MUP201CF may be repeated for credit. Repeats 99.0 99.0 | Occ | L+L 1.0 0.6 0.0 | Z |
| MUP201CI | 2017 Fall | Private Instruction: Percussion | | Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp. | Prerequisites: A grade of C or better in MUP151CI. | MUP201CI may be repeated for credit. | Occ | L+L 1.0 0.6 0.0 | Z |
| MUP201CJ | 2017 Fall | Private Instruction: Harp | | Private Instruction emphasizing developmental improvement of musicianship, and technique from an entering skill level. Four course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, | Prerequisites: A grade of C or better in MUP151CJ. | MUP201CJ may be repeated for credit. | Occ | L+L 1.0 0.6 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, percussion, and harp. | | | | | |
| MUP201CK | 2020 Fall | Private Instruction: Popular Music Voice | | Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four-course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, harp, turntablism and electronic music. | Prerequisites: A grade of C or better in MUP151CK. | MUP201CK may be repeated for credit. | Occ | L+L 1.0 0.6 0.0 | Z |
| MUP201CL | 2020 Fall | Private Instruction: Popular Music Piano | | Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four-course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, harp, turntablism and electronic music. | Prerequisites: A grade of C or better in MUP151CL. | MUP201CL may be repeated for credit. | Occ | L+L 1.0 0.6 0.0 | Z |
| MUP201CM | 2020 Fall | Private Instruction: Popular Music Guitar | | Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four- | Prerequisites: A grade of C or better in MUP151CM. | MUP201CM may be repeated for credit. | Occ | L+L 1.0 0.6 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, harp, turntablism and electronic music. | | | | | |
| MUP201CN | 2020 Fall | Private Instruction: Popular Music Drum | | Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four-course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, harp, turntablism and electronic music. | Prerequisites: A grade of C or better in MUP151CN. | MUP201CN may be repeated for credit. | Occ | L+L 1.0 0.6 0.0 | Z |
| MUP201CO | 2020 Fall | Private Instruction: Popular Music Production | | Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four-course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass | Prerequisites: A grade of C or better in MUP151CO. | MUP201CO may be repeated for credit. | Occ | L+L 1.0 0.6 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | guitar, percussion, harp, turntablism and electronic music. | | | | | |
| MUP201CP | 2020 Fall | Private Instruction: Popular Electronic Music Performance | | Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four-course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, harp, turntablism and electronic music. | Prerequisites: A grade of C or better in MUP151CP. | MUP201CP may be repeated for credit. | Occ | L+L 1.0 0.6 0.0 | Z |
| MUP201CQ | 2020 Fall | Private Instruction: Popular Music Turntablism | | Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four-course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, harp, turntablism and electronic music. | Prerequisites: A grade of C or better in MUP151CQ. | MUP201CQ may be repeated for credit. | Occ | L+L 1.0 0.6 0.0 | Z |
| MUP202AA | 2017 Fall | Private Instruction: Voice | | Private Instruction emphasizing musicianship, literature, technique and performance. Four course sequence designed for university transfer equivalency. Instruction | Prerequisites: A grade of C or better in MUP152AA. | MUP202AA may be repeated for credit. | Occ | L+L 2.0 1.2 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp. | | | | | |
| MUP202AD | 2017 Fall | Private Instruction: Piano | | Private Instruction emphasizing musicianship, literature, technique and performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp. | Prerequisites: A grade of C or better in MUP152AD. | MUP202AD may be repeated for credit. | Occ | L+L 2.0 1.2 0.0 | Z |
| MUP202AG | 2017 Fall | Private Instruction: Harpsichord | | Private Instruction emphasizing musicianship, literature, technique and performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp. | Prerequisites: A grade of C or better in MUP152AG. | MUP202AG may be repeated for credit. | Occ | L+L 2.0 1.2 0.0 | Z |
| MUP202AJ | 2017 Fall | Private Instruction: Organ | | Private Instruction emphasizing musicianship, literature, technique and performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, | Prerequisites: A grade of C or better in MUP152AJ. | MUP202AJ may be repeated for credit. | Occ | L+L 2.0 1.2 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp. | | | | | |
| MUP202AM | 2017 Fall | Private Instruction: Guitar | | Private Instruction emphasizing musicianship, literature, technique and performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp. | Prerequisites: A grade of C or better in MUP152AM. | MUP202AM may be repeated for credit. | Occ | L+L 2.0 1.2 0.0 | Z |
| MUP202AP | 2017 Fall | Private Instruction: Trumpet | | Private Instruction emphasizing musicianship, literature, technique and performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp. | Prerequisites: A grade of C or better in MUP152AP. | MUP202AP may be repeated for credit. | Occ | L+L 2.0 1.2 0.0 | Z |
| MUP202AS | 2017 Fall | Private Instruction: French Horn | | Private Instruction emphasizing musicianship, literature, technique and performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, | Prerequisites: A grade of C or better in MUP152AS. | MUP202AS may be repeated for credit. | Occ | L+L 2.0 1.2 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp. | | | | | |
| MUP202AV | 2017 Fall | Private Instruction: Trombone | | Private Instruction emphasizing musicianship, literature, technique and performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp. | Prerequisites: A grade of C or better in MUP152AV. | MUP202AV may be repeated for credit. | Occ | L+L 2.0 1.2 0.0 | Z |
| MUP202AY | 2017 Fall | Private Instruction: Euphonium | | Private Instruction emphasizing musicianship, literature, technique and performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, euphonium, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp. | Prerequisites: A grade of C or better in MUP152AY. | MUP202AY may be repeated for credit. | Occ | L+L 2.0 1.2 0.0 | Z |
| MUP202BB | 2017 Fall | Private Instruction: Tuba | | Private Instruction emphasizing musicianship, literature, technique and performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, | Prerequisites: A grade of C or better in MUP152BB. | MUP202BB may be repeated for credit. | Occ | L+L 2.0 1.2 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp. | | | | | |
| MUP202BE | 2017 Fall | Private Instruction: Flute | | Private Instruction emphasizing musicianship, literature, technique and performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp. | Prerequisites: A grade of C or better in MUP152BE. | MUP202BE may be repeated for credit. | Occ | L+L 2.0 1.2 0.0 | Z |
| MUP202BH | 2017 Fall | Private Instruction: Oboe | | Private Instruction emphasizing musicianship, literature, technique and performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp. | Prerequisites: A grade of C or better in MUP152BH. | MUP202BH may be repeated for credit. | Occ | L+L 2.0 1.2 0.0 | Z |
| MUP202BK | 2017 Fall | Private Instruction: Clarinet | | Private Instruction emphasizing musicianship, literature, technique and performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, | Prerequisites: A grade of C or better in MUP152BK. | MUP202BK may be repeated for credit. | Occ | L+L 2.0 1.2 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp. | | | | | |
| MUP202BN | 2017 Fall | Private Instruction: Bassoon | | Private Instruction emphasizing musicianship, literature, technique and performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp. | Prerequisites: A grade of C or better in MUP152BN. | MUP202BN may be repeated for credit. | Occ | L+L 2.0 1.2 0.0 | Z |
| MUP202BQ | 2017 Fall | Private Instruction: Saxophone | | Private Instruction emphasizing musicianship, literature, technique and performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp. | Prerequisites: A grade of C or better in MUP152BQ. | MUP202BQ may be repeated for credit. | Occ | L+L 2.0 1.2 0.0 | Z |
| MUP202BT | 2017 Fall | Private Instruction: Violin | | Private Instruction emphasizing musicianship, literature, technique and performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, | Prerequisites: A grade of C or better in MUP152BT. | MUP202BT may be repeated for credit. | Occ | L+L 2.0 1.2 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp. | | | | | |
| MUP202BW | 2017 Fall | Private Instruction: Viola | | Private Instruction emphasizing musicianship, literature, technique and performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp. | Prerequisites: A grade of C or better in MUP152BW. | MUP202BW may be repeated for credit. | Occ | L+L 2.0 1.2 0.0 | Z |
| MUP202BZ | 2017 Fall | Private Instruction: Violoncello | | Private Instruction emphasizing musicianship, literature, technique and performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp. | Prerequisites: A grade of C or better in MUP152BZ. | MUP202BZ may be repeated for credit. | Occ | L+L 2.0 1.2 0.0 | Z |
| MUP202CC | 2017 Fall | Private Instruction: Contrabass | | Private Instruction emphasizing musicianship, literature, technique and performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, | Prerequisites: A grade of C or better in MUP152CC. | MUP202CC may be repeated for credit. | Occ | L+L 2.0 1.2 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | violoncello, contrabass, bass guitar, percussion, and harp. | | | | | |
| MUP202CF | 2020 Fall | Private Instruction: Popular Music Bass Guitar | | Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four-course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, harp, turntablism and electronic music. | Prerequisites: A grade of C or better in MUP152CF. | MUP202CF may be repeated for credit. | Occ | L+L 2.0 1.2 0.0 | Z |
| MUP202CI | 2017 Fall | Private Instruction: Percussion | | Private Instruction emphasizing musicianship, literature, technique and performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp. | Prerequisites: A grade of C or better in MUP152CI. | MUP202CI may be repeated for credit. | Occ | L+L 2.0 1.2 0.0 | Z |
| MUP202CJ | 2017 Fall | Private Instruction: Harp | | Private Instruction emphasizing musicianship, literature, technique and performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, | Prerequisites: A grade of C or better in MUP152CJ. | MUP202CJ may be repeated for credit. | Occ | L+L 2.0 1.2 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp. | | | | | |
| MUP202CK | 2020 Fall | Private Instruction: Popular Music Voice | | Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four-course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, harp, turntablism and electronic music. | Prerequisites: A grade of C or better in MUP152CK. | MUP202CK may be repeated for credit. | Occ | L+L 2.0 1.2 0.0 | Z |
| MUP202CL | 2020 Fall | Private Instruction: Popular Music Piano | | Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four-course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, harp, turntablism and electronic music. | Prerequisites: A grade of C or better in MUP152CL. | MUP202CL may be repeated for credit. | Occ | L+L 2.0 1.2 0.0 | Z |
| MUP202CM | 2020 Fall | Private Instruction: Popular Music Guitar | | Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four-course sequence required of | Prerequisites: A grade of C or better in MUP152CM. | MUP202CM may be repeated for credit. | Occ | L+L 2.0 1.2 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, harp, turntablism and electronic music. | | | | | |
| MUP202CN | 2020 Fall | Private Instruction: Popular Music Drum | | Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four-course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, harp, turntablism and electronic music. | Prerequisites: A grade of C or better in MUP152CN. | MUP202CN may be repeated for credit. | Occ | L+L 2.0 1.2 0.0 | Z |
| MUP202CO | 2020 Fall | Private Instruction: Popular Music Production | | Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four-course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, harp, | Prerequisites: A grade of C or better in MUP152CO. | MUP202CO may be repeated for credit. | Occ | L+L 2.0 1.2 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | turntablism and electronic music. | | | | | |
| MUP202CP | 2020 Fall | Private Instruction: Popular Electronic Music Performance | | Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four-course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, harp, turntablism and electronic music. | Prerequisites: A grade of C or better in MUP152CP. | MUP202CP may be repeated for credit. | Occ | L+L 2.0 1.2 0.0 | Z |
| MUP202CQ | 2020 Fall | Private Instruction: Popular Music Turntablism | | Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four-course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, harp, turntablism and electronic music. | Prerequisites: A grade of C or better in MUP152CQ. | MUP202CQ may be repeated for credit. | Occ | L+L 2.0 1.2 0.0 | Z |
| MUP209 | 2017 Fall | Elements of Conducting | | Essentials of conducting techniques used in choral and instrumental ensembles including terminology, interpretation, and styles | Prerequisites: None. | | Occ | LEC 2.0 2.0 2.0 | S |
| MUP217 | 2020 Spring | Music Theatre: Broadway Solos | | Study and in-class performance of scenes and | Prerequisites: None. | MUP217 may be repeated for credit. | Occ | L+L 1.0 3.0 3.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | solos from Broadway musical literature. | | | | | |
| MUP218 | 2018 Fall | Audition Techniques: Music Theater | | Practice in the techniques of auditioning for musical theater. Identification and illustration techniques of the vocal and acting music theater audition. | Prerequisites: None. | | Occ | L+L 1.0 3.0 3.0 | T |
| MUP227 | 2019 Fall | Class Guitar III | | Additional fingerboard positions. Ensemble techniques and performance. | Prerequisites: A grade of C or better in MUP226 or permission of Instructor. | | Occ | L+L 1.0 3.0 3.0 | T |
| MUP228 | 2019 Fall | Class Guitar IV | | Advanced fingerboard positions. Duet and trio performances. Advanced ensemble techniques. | Prerequisites: A grade of C or better in MUP227 or permission of Instructor. | MUP228 may be repeated for credit. | Occ | L+L 1.0 3.0 3.0 | T |
| MUP231 | 2023 Fall | Class Piano III | | Development of intermediate piano techniques including selected solo literature, transposition of harmonic patterns, and secondary dominants. | Prerequisites: A grade of C or better in MUP132 or permission of Instructor. | | Occ | L+L 1.0 3.0 3.0 | T |
| MUP232 | 2023 Fall | Class Piano IV | | Continuation of Piano III including modulation techniques, improvisation of piano accompaniments, advanced chromatic harmony, and sight reading of advanced literature. | Prerequisites: A grade of C or better in MUP231 or permission of Instructor. | MUP232 may be repeated for credit. | Occ | L+L 1.0 3.0 3.0 | T |
| MUP233 | 2019 Fall | Class Voice III | | Interpretive singing through a closer examination of coloring, tone production, dynamics, and tempo indications. | Prerequisites: A grade of C or better in MUP134. | | | L+L 1.0 3.0 3.0 | T |
| MUP234 | 2019 Fall | Class Voice IV | | Emphasis on the preparation of solo vocal literature for the purpose of evaluation and the integration of the music with the drama of the music. | Prerequisites: A grade of C or better in MUP233 or permission of Instructor. | MUP234 may be repeated for credit. | Occ | L+L 1.0 3.0 3.0 | T |
| MUP240 | 2012 Fall | Piano Literature | | Survey of solo literature written for the piano or for other keyboard instruments (i.e. harpsichord, clavichord) but suitable for performance on the piano. Emphasis on stylistic characteristics information correlating the | Prerequisites: A grade of C or better in MUP140 or permission of Instructor. | Occ | Occ | LEC 2.0 2.0 2.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | composer's life and period with compositional techniques used. | | | | | |
| MUP241 | 2010 Spring | Piano Artistry | | Overview of topics and issues including practice skills, rhythm, technique, musicianship such as dynamics, ornamentation, pedaling, touch, phrasing, articulation, voicing, balance, and the manipulation of time, necessary for pianists and piano teachers in working for expression, finesse and artistry. | Prerequisites: A grade of C or better in MUP240 or permission of Instructor. | | Occ | LEC 2.0 2.0 2.0 | S |
| MUP250AA | 2023 Fall | Survey of Diction for Singers (English) | | Introduction to the use of phonetics in the study of English song literature. | Prerequisites: None. | | Occ | L+L 1.0 2.0 2.0 | T |
| MUP250AB | 2023 Fall | Survey of Diction for Singers (Italian/Latin) | | Introduction to the use of phonetics in the study of Italian/Latin song literature | Prerequisites: None. | | Occ | L+L 1.0 2.0 2.0 | T |
| MUP250AC | 2023 Fall | Survey of Diction for Singers (German) | | Introduction to the use of phonetics in the study of German song literature. | Prerequisites: None. | | Occ | L+L 1.0 2.0 2.0 | T |
| MUP250AD | 2023 Fall | Survey of Diction for Singers (French) | | Introduction to the use of phonetics in the study of French song literature. | Prerequisites: None. | | Occ | L+L 1.0 2.0 2.0 | T |
| MUP251AA | 2017 Fall | Private Instruction: Voice | | Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp. | Prerequisites: A grade of C or better in MUP201AA. | MUP251AA may be repeated for credit. | Occ | L+L 1.0 0.6 0.0 | Z |
| MUP251AD | 2017 Fall | Private Instruction: Piano | | Private Instruction emphasizing developmental improvement of musicianship | Prerequisites: A grade of C or better in MUP201AD. | MUP251AD may be repeated for credit. | Occ | L+L 1.0 0.6 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | and technique from an entering skill level. Four course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp. | | | | | |
| MUP251AG | 2017 Fall | Private Instruction: Harpsichord | | Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp. | Prerequisites: A grade of C or better in MUP201AG. | MUP251AG may be repeated for credit. | Occ | L+L 1.0 0.6 0.0 | Z |
| MUP251AJ | 2017 Fall | Private Instruction: Organ | | Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp. | Prerequisites: A grade of C or better in MUP201AJ. | MUP251AJ may be repeated for credit. | Occ | L+L 1.0 0.6 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| MUP251AM | 2017 Fall | Private Instruction: Guitar | | Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp. | Prerequisites: A grade of C or better in MUP201AM. | MUP251AM may be repeated for credit. | Occ | L+L 1.0 0.6 0.0 | Z |
| MUP251AP | 2017 Fall | Private Instruction: Trumpet | | Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp. | Prerequisites: A grade of C or better in MUP201AP. | MUP251AP may be repeated for credit. | Occ | L+L 1.0 0.6 0.0 | Z |
| MUP251AS | 2017 Fall | Private Instruction: French Horn | | Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, | Prerequisites: A grade of C or better in MUP201AS. | MUP251AS may be repeated for credit. | Occ | L+L 1.0 0.6 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | violoncello, contrabass, bass guitar, percussion, and harp. | | | | | |
| MUP251AV | 2017 Fall | Private Instruction: Trombone | | Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp. | Prerequisites: A grade of C or better in MUP201AV. | MUP251AV may be repeated for credit. | Occ | L+L 1.0 0.6 0.0 | Z |
| MUP251AY | 2017 Fall | Private Instruction: Euphonium | | Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, euphonium, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp. | Prerequisites: A grade of C or better in MUP201AY. | MUP251AY may be repeated for credit. | Occ | L+L 1.0 0.6 0.0 | Z |
| MUP251BB | 2017 Fall | Private Instruction: Tuba | | Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, | Prerequisites: A grade of C or better in MUP201BB. | MUP251BB may be repeated for credit. | Occ | L+L 1.0 0.6 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp. | | | | | |
| MUP251BE | 2017 Fall | Private Instruction: Flute | | Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp. | Prerequisites: A grade of C or better in MUP201BE. | MUP251BE may be repeated for credit. | Occ | L+L 1.0 0.6 0.0 | Z |
| MUP251BH | 2017 Fall | Private Instruction: Oboe | | Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp. | Prerequisites: A grade of C or better in MUP201BH. | MUP251BH may be repeated for credit. | Occ | L+L 1.0 0.6 0.0 | Z |
| MUP251BK | 2017 Fall | Private Instruction: Clarinet | | Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, | Prerequisites: A grade of C or better in MUP201BK. | MUP251BK may be repeated for credit. | Occ | L+L 1.0 0.6 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp. | | | | | |
| MUP251BN | 2017 Fall | Private Instruction: Bassoon | | Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp. | Prerequisites: A grade of C or better in MUP201BN. | MUP251BN may be repeated for credit. | Occ | L+L 1.0 0.6 0.0 | Z |
| MUP251BQ | 2017 Fall | Private Instruction: Saxophone | | Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp. | Prerequisites: A grade of C or better in MUP201BQ. | MUP251BQ may be repeated for credit. | Occ | L+L 1.0 0.6 0.0 | Z |
| MUP251BT | 2017 Fall | Private Instruction: Violin | | Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four course sequence required of all music majors meeting departmental requirements. | Prerequisites: A grade of C or better in MUP201BT. | MUP251BT may be repeated for credit. | Occ | L+L 1.0 0.6 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp. | | | | | |
| MUP251BW | 2017 Fall | Private Instruction: Viola | | Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp. | Prerequisites: A grade of C or better in MUP201BW. | MUP251BW may be repeated for credit. | Occ | L+L 1.0 0.6 0.0 | Z |
| MUP251BZ | 2017 Fall | Private Instruction: Violoncello | | Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp. | Prerequisites: A grade of C or better in MUP201BZ. | MUP251BZ may be repeated for credit. | Occ | L+L 1.0 0.6 0.0 | Z |
| MUP251CC | 2017 Fall | Private Instruction: Contrabass | | Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four course sequence required of | Prerequisites: A grade of C or better in MUP201CC. | MUP251CC may be repeated for credit. | Occ | L+L 1.0 0.6 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp. | | | | | |
| MUP251CF | 2020 Fall | Private Instruction: Popular Music Bass Guitar | | Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four-course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, harp, turntablism and electronic music. | Prerequisites: A grade of C or better in MUP201CF. | MUP251CF may be repeated for credit. | Occ | L+L 1.0 0.6 0.0 | Z |
| MUP251CI | 2017 Fall | Private Instruction: Percussion | | Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp. | Prerequisites: A grade of C or better in MUP201CI. | MUP251CI may be repeated for credit. | Occ | L+L 1.0 0.6 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| MUP251CJ | 2017 Fall | Private Instruction: Harp | | Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four course sequence required of all music najors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp. | Prerequisites: A grade of C or better in MUP202CJ. | MUP251CJ may be repeated for credit. | Occ | L+L 1.0 0.6 0.0 | Z |
| MUP251CK | 2020 Fall | Private Instruction: Popular Music Voice | | Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four-course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, harp, turntablism and electronic music. | Prerequisites: A grade of C or better in MUP201CK. | MUP251CK may be repeated for credit. | Occ | L+L 1.0 0.6 0.0 | Z |
| MUP251CL | 2020 Fall | Private Instruction: Popular Music Piano | | Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four-course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, | Prerequisites: A grade of C or better in MUP201CL. | MUP251CL may be repeated for credit. | Occ | L+L 1.0 0.6 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, harp, turntablism and electronic music. | | | | | |
| MUP251CM | 2020 Fall | Private Instruction: Popular Music Guitar | | Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four-course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, harp, turntablism and electronic music. | Prerequisites: A grade of C or better in MUP201CM. | MUP251CM may be repeated for credit. | Occ | L+L 1.0 0.6 0.0 | Z |
| MUP251CN | 2020 Fall | Private Instruction: Popular Music Drum | | Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four-course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, harp, turntablism and electronic music. | Prerequisites: A grade of C or better in MUP201CN. | MUP251CN may be repeated for credit. | Occ | L+L 1.0 0.6 0.0 | Z |
| MUP251CO | 2020 Fall | Private Instruction: Popular Music Production | | Private Instruction emphasizing developmental improvement of musicianship and technique from an | Prerequisites: A grade of C or better in MUP201CO. | MUP251CO may be repeated for credit. | Occ | L+L 1.0 0.6 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | entering skill level. Four-course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, harp, turntablism and electronic music. | | | | | |
| MUP251CP | 2020 Fall | Private Instruction: Popular Electronic Music Performance | | Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four-course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, harp, turntablism and electronic music. | Prerequisites: A grade of C or better in MUP201CP. | MUP251CP may be repeated for credit. | Occ | L+L 1.0 0.6 0.0 | Z |
| MUP251CQ | 2020 Fall | Private Instruction: Popular Music Turntablism | | Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four-course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, | Prerequisites: A grade of C or better in MUP201CQ. | MUP251CQ may be repeated for credit. | Occ | L+L 1.0 0.6 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | violoncello, contrabass, bass guitar, percussion, harp, turntablism and electronic music. | | | | | |
| MUP252AA | 2017 Fall | Private Instruction: Voice | | Private Instruction emphasizing musicianship, literature, technique and performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp. | Prerequisites: A grade of C or better in MUP202AA. | MUP252AA may be repeated for credit. | Occ | L+L 2.0 1.2 0.0 | Z |
| MUP252AD | 2017 Fall | Private Instruction: Piano | | Private Instruction emphasizing musicianship, literature, technique and performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp. | Prerequisites: A grade of C or better in MUP202AD. | MUP252AD may be repeated for credit. | Occ | L+L 2.0 1.2 0.0 | Z |
| MUP252AG | 2017 Fall | Private Instruction: Harpsichord | | Private Instruction emphasizing musicianship, literature, technique and performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, | Prerequisites: A grade of C or better in MUP202AG. | MUP252AG may be repeated for credit. | Occ | L+L 2.0 1.2 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp. | | | | | |
| MUP252AJ | 2017 Fall | Private Instruction: Organ | | Private Instruction emphasizing musicianship, literature, technique and performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp. | Prerequisites: A grade of C or better in MUP202AJ. | MUP252AJ may be repeated for credit. | Occ | L+L 2.0 1.2 0.0 | Z |
| MUP252AM | 2017 Fall | Private Instruction: Guitar | | Private Instruction emphasizing musicianship, literature, technique and performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp. | Prerequisites: A grade of C or better in MUP202AM. | MUP252AM may be repeated for credit. | Occ | L+L 2.0 1.2 0.0 | Z |
| MUP252AP | 2017 Fall | Private Instruction: Trumpet | | Private Instruction emphasizing musicianship, literature, technique and performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, | Prerequisites: A grade of C or better in MUP202AP. | MUP252AP may be repeated for credit. | Occ | L+L 2.0 1.2 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | violoncello, contrabass, bass guitar, percussion, and harp. | | | | | |
| MUP252AS | 2017 Fall | Private Instruction: French Horn | | Private Instruction emphasizing musicianship, literature, technique and performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp. | Prerequisites: A grade of C or better in MUP202AS. | MUP252AS may be repeated for credit. | Occ | L+L 2.0 1.2 0.0 | Z |
| MUP252AV | 2017 Fall | Private Instruction: Trombone | | Private Instruction emphasizing musicianship, literature, technique and performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp. | Prerequisites: A grade of C or better in MUP202AV. | MUP252AV may be repeated for credit. | Occ | L+L 2.0 1.2 0.0 | Z |
| MUP252AY | 2017 Fall | Private Instruction: Euphonium | | Private Instruction emphasizing musicianship, literature, technique and performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, euphonium, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, | Prerequisites: A grade of C or better in MUP202AY. | MUP252AY may be repeated for credit. | Occ | L+L 2.0 1.2 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | violoncello, contrabass, bass guitar, percussion, and harp. | | | | | |
| MUP252BB | 2017 Fall | Private Instruction: Tuba | | Private Instruction emphasizing musicianship, literature, technique and performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp. | Prerequisites: A grade of C or better in MUP202BB. | MUP252BB may be repeated for credit. | Occ | L+L 2.0 1.2 0.0 | Z |
| MUP252BE | 2017 Fall | Private Instruction: Flute | | Private Instruction emphasizing musicianship, literature, technique and performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp. | Prerequisites: A grade of C or better in MUP202BE. | MUP252BE may be repeated for credit. | Occ | L+L 2.0 1.2 0.0 | Z |
| MUP252BH | 2017 Fall | Private Instruction: Oboe | | Private Instruction emphasizing musicianship, literature, technique and performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, | Prerequisites: A grade of C or better in MUP202BH. | MUP252BH may be repeated for credit. | Occ | L+L 2.0 1.2 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | violoncello, contrabass, bass guitar, percussion, and harp. | | | | | |
| MUP252BK | 2017 Fall | Private Instruction: Clarinet | | Private Instruction emphasizing musicianship, literature, technique and performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp. | Prerequisites: A grade of C or better in MUP202BK. | MUP252BK may be repeated for credit. | Occ | L+L 2.0 1.2 0.0 | Z |
| MUP252BN | 2017 Fall | Private Instruction: Bassoon | | Private Instruction emphasizing musicianship, literature, technique and performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp. | Prerequisites: A grade of C or better in MUP202BN. | MUP252BN may be repeated for credit. | Occ | L+L 2.0 1.2 0.0 | Z |
| MUP252BQ | 2017 Fall | Private Instruction: Saxophone | | Private Instruction emphasizing musicianship, literature, technique and performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, | Prerequisites: A grade of C or better in MUP202BQ. | MUP252BQ may be repeated for credit. | Occ | L+L 2.0 1.2 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | violoncello, contrabass, bass guitar, percussion, and harp. | | | | | |
| MUP252BT | 2017 Fall | Private Instruction: Violin | | Private Instruction emphasizing musicianship, literature, technique and performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp. | Prerequisites: A grade of C or better in MUP202BT. | MUP252BT may be repeated for credit. | Occ | L+L 2.0 1.2 0.0 | Z |
| MUP252BW | 2017 Fall | Private Instruction: Viola | | Private Instruction emphasizing musicianship, literature, technique and performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp. | Prerequisites: A grade of C or better in MUP202BW. | MUP252BW may be repeated for credit. | Occ | L+L 2.0 1.2 0.0 | Z |
| MUP252BZ | 2017 Fall | Private Instruction: Violoncello | | Private Instruction emphasizing musicianship, literature, technique and performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, | Prerequisites: A grade of C or better in MUP202BZ. | MUP252BZ may be repeated for credit. | Occ | L+L 2.0 1.2 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | violoncello, contrabass, bass guitar, percussion, and harp. | | | | | |
| MUP252CC | 2017 Fall | Private Instruction: Contrabass | | Private Instruction emphasizing musicianship, literature, technique and performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp. | Prerequisites: A grade of C or better in MUP202CC. | MUP252CC may be repeated for credit. | Occ | L+L 2.0 1.2 0.0 | Z |
| MUP252CF | 2020 Fall | Private Instruction: Popular Music Bass Guitar | | Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four-course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, harp, turntablism and electronic music. | Prerequisites: A grade of C or better in MUP202CF. | MUP252CF may be repeated for credit. | Occ | L+L 2.0 1.2 0.0 | Z |
| MUP252CI | 2017 Fall | Private Instruction: Percussion | | Private Instruction emphasizing musicianship, literature, technique and performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, | Prerequisites: A grade of C or better in MUP202CI. | MUP252CI may be repeated for credit. | Occ | L+L 2.0 1.2 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp. | | | | | |
| MUP252CJ | 2017 Fall | Private Instruction: Harp | | Private Instruction emphasizing musicianship, literature, technique and performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp. | Prerequisites: A grade of C or better in MUP202CJ. | MUP252CJ may be repeated for credit. | Occ | L+L 2.0 1.2 0.0 | Z |
| MUP252CK | 2020 Fall | Private Instruction: Popular Music Voice | | Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four-course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, harp, turntablism and electronic music. | Prerequisites: A grade of C or better in MUP202CK. | MUP252CK may be repeated for credit. | Occ | L+L 2.0 1.2 0.0 | Z |
| MUP252CL | 2020 Fall | Private Instruction: Popular Music Piano | | Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four-course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, | Prerequisites: A grade of C or better in MUP202CL. | MUP252CL may be repeated for credit. | Occ | L+L 2.0 1.2 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, harp, turntablism and electronic music. | | | | | |
| MUP252CM | 2020 Fall | Private Instruction: Popular Music Guitar | | Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four-course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, harp, turntablism and electronic music. | Prerequisites: A grade of C or better in MUP202CM. | MUP252CM may be repeated for credit. | Occ | L+L 2.0 1.2 0.0 | Z |
| MUP252CN | 2020 Fall | Private Instruction: Popular Music Drum | | Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four-course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, harp, turntablism and electronic music. | Prerequisites: A grade of C or better in MUP202CN. | MUP252CN may be repeated for credit. | Occ | L+L 2.0 1.2 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| MUP252CO | 2020 Fall | Private Instruction: Popular Music Production | | Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four-course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, harp, turntablism and electronic music. | Prerequisites: A grade of C or better in MUP202CO. | MUP252CO may be repeated for credit. | Occ | L+L 2.0 1.2 0.0 | Z |
| MUP252CP | 2020 Fall | Private Instruction: Popular Electronic Music Performance | | Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four-course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, harp, turntablism and electronic music. | Prerequisites: A grade of C or better in MUP202CP. | MUP252CP may be repeated for credit. | Occ | L+L 2.0 1.2 0.0 | Z |
| MUP252CQ | 2020 Fall | Private Instruction: Popular Music Turntablism | | Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four-course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, | Prerequisites: A grade of C or better in MUP202CQ. | MUP252CQ may be repeated for credit. | Occ | L+L 2.0 1.2 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, harp, turntablism and electronic music. | | | | | |
| MUP270 | 2023 Fall | Musical Theatre Workshop | THO270 | Workshop in the study and performance of Musical Theatre repertoire. Includes audition techniques, stage directions, character role development, rehearsal techniques, vocal acting styles and vocal technique, stage movement, crew roles, and performance. | Prerequisites: None. | MUP/THO270 may be repeated for credit. | Occ | L+L 2.0 5.0 5.0 | T |
| MUP270AA | 2023 Fall | Musical Theatre Workshop | THO270AA | Workshop in the study and performance of musical theatre repertoire. Includes audition techniques, stage directions, character role development, rehearsal techniques, vocal acting styles and vocal technique, stage movement, crew roles, and performance. | Prerequisites: None. | MUP/THO270AA may be repeated for a total of two (2) credits. | Occ | LAB 1.0 3.0 3.0 | T |
| MUP273 | 2020 Fall | Musical Theatre Production | THP273 | Principles and techniques for musical theatre production performance. Includes audition techniques, stage directions, character role development, rehearsal techniques, vocal acting styles and vocal technique, stage movement, crew roles, and performance. | Prerequisites: By audition. | | Acad | LAB 1.0 5.0 5.0 | T |
| MUP282AA | 2017 Fall | Volunteerism for Music: A Service Learning Experience | | Service-learning field experience within private/public agencies, citizen volunteer groups, and on-campus sites. 50 hours of designated work per credit. Standard grading available | Prerequisites: None. | MUP282AA may be repeated for a total of six (6) MUP282 credit hours; may not repeat specific agency assignment for more than four (4) credit hours. | Occ | LAB 1.0 1.0 0.0 | L |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | according to procedures outlined in catalog. | | | | | |
| MUP282AB | 2017 Fall | Volunteerism for Music: A Service Learning Experience | | Service-learning field experience within private/public agencies, citizen volunteer groups, and on-campus sites. 50 hours of designated work per credit. Standard grading available according to procedures outlined in catalog. | Prerequisites: None. | MUP282AB may be repeated for a total of six (6) MUP282 credit hours; may not repeat specific agency assignment for more than four (4) credit hours. | Occ | LAB 2.0 2.0 0.0 | L |
| MUP282AC | 2017 Fall | Volunteerism for Music: A Service Learning Experience | | Service-learning field experience within private/public agencies, citizen volunteer groups, and on-campus sites. 50 hours of designated work per credit. Standard grading available according to procedures outlined in catalog. | Prerequisites: None. | MUP282AC may be repeated for a total of six (6) MUP282 credit hours; may not repeat specific agency assignment for more than four (4) credit hours. | Occ | LAB 3.0 3.0 0.0 | L |
| MUP288 | 2017 Fall | Basics of Piano Accompanying Vocal | | Introduction to piano accompanying with emphasis on basic skills needed to accompany solo voice, choral singing, and congregational singing. | Prerequisites: A grade of C or better in MUP151AD or MUP231 or permission of Instructor. | MUP288 may be repeated for a total of four (4) credit hours. | Occ | LEC 2.0 2.0 2.0 | S |
| MUP289 | 2017 Fall | Basics of Piano Accompanying Instrument | | Introduction to piano accompanying with emphasis on basic skills needed to accompany solo instruments, chamber music and musicals. | Prerequisites: A grade of C or better in MUP151AD or MUP231 or permission of Instructor. | MUP289 may be repeated for a total of four (4) credit hours. | Occ | LEC 2.0 2.0 2.0 | S |
| MUP296WA | 2002 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to | Occ | | LAB 1.0 5.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | students major or career interest or with permission of Instructor. | | | | |
| MUP296WB | 2002 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor. | | Occ | LAB 2.0 10.0 0.0 | Z |
| MUP296WC | 2002 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor. | | Occ | LAB 3.0 15.0 0.0 | Z |
| MUP296WD | 2002 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to | | | LAB 4.0 20.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | COMMON COMPETENCY COURSE | students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor. | | | | |
| MUP298AA | 2017 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | Prerequisites: Permission of Program Director or Instructor. | | Occ | LAB 1.0 1.0 0.0 | Z |
| MUP298AB | 2017 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | Prerequisites: Permission of Program Director or Instructor. | | Occ | LAB 2.0 2.0 0.0 | Z |
| MUP298AC | 2017 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured | Prerequisites: Permission of Program Director or Instructor. | Course Attribute(s): COMMON COMPETENCY COURSE | Occ | LAB 3.0 3.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. | | | | | |
| MWR101 | 2021 Fall | Introduction to Millwrighting | | Fundamental millwright trade skills, employee/employer roles and responsibilities, and safe work practices needed for entry-level performance in the construction industry. Emphasis on attaining standard industry safety credentials, practical experience using terminology and basic measuring techniques. Response to environmental and energy efficient building concepts through green construction methods. Training for job site hazard recognition, accident prevention, and safe tool and equipment operation. | Prerequisites: Apprentice status or permission of the Apprenticeship Coordinator. | | Occ | L+L 2.0 2.0 2.0 | T |
| MWR102 | 2021 Fall | Millwrighting Safety and Health Certifications | | Construction hazard awareness and individual responsibility for workplace safety and health, including assessing danger, employing prevention measures, and responding to emergencies. Safe and proper use of hand and power tools, first aid, and cardiopulmonary resuscitation (CPR), and Occupational Safety and Health Administration (OSHA) regulations. | Prerequisites: Apprentice status or permission of the Apprenticeship Coordinator. | | Occ | L+L 2.0 2.0 2.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| MWR103 | 2021 Fall | Machinery Installation and Erection I | | Fundamental machinery installation skills including industry standard practices such as general and assembly drawing interpretation, site inspection criteria, communication skills, pre-installation inspection, storage, and staging. Includes tools and techniques for moving, lifting, elevating machines, and equipment placement. Emphasis on measuring and layout accuracy. Jobsite safety and following instructions will be stressed. | Prerequisites: Apprentice status or permission of the Apprenticeship Coordinator. | | Occ | L+L 2.0 2.0 2.0 | T |
| MWR104 | 2021 Fall | Machinery Installation and Erection II | | Machinery installation skills used in manufacturing applications. Disassembling machinery for inspection and maintenance. Review equipment manufacturers' operating and maintenance guides and assembly instructions. Identification of component locations; measurements and tolerances; installation requirements; and alignment of parts using machine drawings. Review of safety, precision measuring tools, rigging tasks, and following instructions. | Prerequisites: Apprentice status or permission of the Apprenticeship Coordinator. | | Occ | L+L 2.0 2.0 2.0 | T |
| MWR105 | 2021 Fall | Millwrighting General Skills | | Overview of hand and power tools, and stationary machinery general skills used in millwright trade. In-depth review of standard tools including identification, safe operating, inspection, and manufacturer guidelines. Routine cutting, shaping and smoothing of materials with emphasis on measuring and | Prerequisites: Apprentice status or permission of the Apprenticeship Coordinator. | | Occ | L+L 2.0 2.0 2.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | layout accuracy in precision bench skills and field operations. Review of project drawings to promote development of job planning, preparation, and math skills. Shop safety during bench layout, drill press, band saw, and grinder operation. | | | | | |
| MWR106 | 2018 Fall | Math for Millwrighting, Hand, Power and Precision Tools | | Fundamental operations with whole numbers, common fractions, decimals, percentages, and ratio and proportion. Measurement tools. Fundamentals of Algebra, linear equations, includes applied math problems. Use, maintenance and safety procedures for common hand and power tools used in the construction industry. | Prerequisites: A grade of C or better in (MWR103 and registered apprentice status) or permission of the Apprenticeship Coordinator. | | | L+L 2.0 2.0 2.0 | T |
| MWR107 | 2021 Fall | Drives, Pulleys and Belts | | Identification, application, and installation skills for typical power drive systems. Demonstrations and practice exercises on the belt, chain and gear drives. Review of safety, rigging tasks, machinery fastening methods, and mechanical shop drawings. | Prerequisites: Apprentice status or permission of the Apprenticeship Coordinator. | Occ | | L+L 2.0 2.0 2.0 | T |
| MWR108 | 2021 Fall | Reading Mechanical Prints | | Types of blueprints, sketching, and basic print reading. Symbols for materials, construction details, standards, and specifications. Interpretation of two-dimensional views to convey shape, characteristics, construction, and scope of project. Standard drawing methods and how to read visual and verbal cues. Recognizing shop drawings, locating machinery, | Prerequisites: Apprentice status or permission of the Apprenticeship Coordinator. | Occ<br><br>Occ | | L+L 2.0 2.0 2.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | calculating dimensions, equipment layout, and views. | | | | | |
| MWR109 | 2021 Fall | Turbine Familiarization | | Function and performance of a General Electric Frame 5 Gas Turbine. Component descriptions and machine drawings, assembly/disassembly tasks and key bolting procedures. | Prerequisites: Apprentice status or permission of the Apprenticeship Coordinator. | | Occ | L+L 2.0 2.0 2.0 | T |
| MWR110 | 2021 Fall | Cutting and Burning | | Overview of cutting and burning skills using oxygen/acetylene torch equipment. In-depth review of torch cutting principles will cover parts identification, gas characteristics, torch accessories and tips, safe operating and inspection criteria, and manufacturers' guidelines for use and care. | Prerequisites: Apprentice status or permission of the Apprenticeship Coordinator. | | Occ | L+L 2.0 2.0 2.0 | T |
| MWR111 | 2021 Fall | Tools and Equipment Applications | | Discuss the safe and appropriate use of fall protection and emergency response procedures. Tool applications to provide opportunities for tool skill mastery and equipment operation. | Prerequisites: Apprentice status or permission of the Apprenticeship Coordinator. | | Occ | L+L 2.0 2.0 2.0 | T |
| MWR115 | 2021 Fall | Millwright General Skills B - Millwright Apprenticeship | | Hand and power tools, shop equipment, and precision instruments to complete various machining operations. Provides millwright skills and experience using stationary machining equipment. | Prerequisites: Apprentice status or permission of the Apprenticeship Coordinator. | | Occ | L+L 2.0 2.0 2.0 | T |
| MWR121 | 2021 Fall | Structural Welding A - Millwright Apprenticeship | | Careful examination of applicable codes. Includes terminology, shielded metal arc welding (SMAW) processes, equipment and safety requirements, electrode identification and applications, welding positions and deposits. Practical experience to include symbol identification, print | Prerequisites: Apprentice status or permission of the Apprenticeship Coordinator. | | Occ | L+L 2.0 2.0 2.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | interpretation, code citation, safe equipment setup and operation, and recognition/remediation of welding flaws. Course will focus on the written examination and production of practical test plates required for American Welding Society (AWS) D1.1 certification. | | | | | |
| MWR131 | 2021 Fall | Structural Welding B - Millwright Apprenticeship | | Provides practical experience for structural welding skills used in commercial and industrial construction. Review of welding terminology, welding processes, welding equipment, and safety requirements. Discusses electrode characteristics and metal inert gas/tungsten inert gas (MIG/TIG) welding applications. Course focuses on the written examination and production of practical test plates required for American Welding Society (AWS) D1.1 certification. | Prerequisites: Apprentice status or permission of the Apprenticeship Coordinator. | | Occ | L+L 2.0 2.0 2.0 | T |
| MWR201 | 2021 Fall | Shaft Alignment I | | Terms, characteristics, and operating principles for the transit and laser levels. Procedures for establishing machinery and equipment elevation and alignment using precision optical instruments and installation procedures. Topics include transit and jig transit characteristics, instrument increments of measurement and accuracy, site inspection, setting up levels, determining benchmarks, and taking and recording elevation readings. | Prerequisites: Apprentice status or permission of the Apprenticeship Coordinator. | | Occ | L+L 2.0 2.0 2.0 | T |
| MWR202 | 2021 Fall | Conveyor Systems | | Proper layout and component alignment of machinery, equipment, and conveyor | Prerequisites: Apprentice status or permission of the | | | L+L 2.0 2.0 2.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | systems. Identification of proper alignment procedures. Belt splicing. Analysis of effects of improper installation on maintenance and lifespan of equipment and conveyor systems. | Apprenticeship Coordinator. | | | | |
| MWR203 | 2005 Spring | Speciality Machinery I | | Fundamentals and theory of hydraulics and pneumatics. Types, components, construction, and assembly of pumps and compressors. Inner workings of industrial pumps and compressors. Auxiliary equipment and accessories. | Prerequisites: (Registered apprentice status and a grade of C or better in MWR202) or permission of the Apprenticeship Coordinator. | | Occ | LEC 5.0 5.0 5.0 | A |
| MWR204 | 2005 Spring | Speciality Machinery II | | Design, terminology, installation and operation of centrifugal and axial draft fans, monorail systems, steam turbines and generators. Layout and fabrication of monorail hangers, turns, and dips | Prerequisites: Registered apprentice status or permission of the Apprenticeship Coordinator. | | Occ | LEC 5.0 5.0 5.0 | A |
| MWR205 | 2021 Fall | Shaft Alignment II | | Terms, characteristics, and methods for aligning machine shafts. Comprehensive review of alignment principles including conventional dial indicator and computer-aided. Setting up indicators, taking and recording indicator readings, and determining alignment correction. | Prerequisites: Apprentice status or permission of the Apprenticeship Coordinator. | | Occ | L+L 2.0 2.0 2.0 | T |
| MWR206 | 2021 Fall | Rigging Hardware and Procedures | | Lifting theory and practical rigging methods and procedures. Rigging attachment procedures, lifting equipment, limits of operation, and communication practices. United Brotherhood of Carpenters (UBC) rigging qualification cards. | Prerequisites: Apprentice status or permission of the Apprenticeship Coordinator. | | Occ | L+L 2.0 2.0 2.0 | T |
| MWR207 | 2018 Fall | Advanced Precision Alignment Instruments | | Computer aided transit and laser levels. Procedures for using Computer-aided Design | Prerequisites: A grade of C or better in (MWR201 and | | | L+L 2.0 2.0 2.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | (CAD), Global Positioning System (GPS) and Satellite instruments and computer programs using metric circle, GPS coordinates, degrees, minutes, and seconds on veneer scales. Utilization of computer programs for layout. | registered apprentice status) or permission of the Apprenticeship Coordinator. | | | | |
| MWR208 | 2021 Fall | Compressor Theory and Maintenance | | Fundamentals and theory of hydraulics and pneumatics. Types, components, construction, and assembly of pumps and compressors. Inner workings of industrial pumps and compressors. Design and installment of auxiliary equipment and accessories. | Prerequisites: Apprentice status or permission of the Apprenticeship Coordinator. | | Occ | L+L 2.0 2.0 2.0 | T |
| MWR209 | 2018 Fall | Introduction to Wind Turbines | | Design, function and installation of wind turbine equipment. Methods, sequences and procedures for housings, bolting, power, drive assembly and other components. Jobsite safety, print interpretation, material identification, and use of system devices and maintenance criteria. Completion of hands-on component installation projects. | Prerequisites: A grade of C or better in (MWR109 and registered apprentice status) or permission of the Apprenticeship Coordinator. | | Occ | L+L 2.0 2.0 2.0 | T |
| MWR210 | 2021 Fall | Solar Installer | | Characteristics, design, and installation of concentrated photovoltaic (CPV) components. Methods, sequences, and procedures for layout, assembly, mounting, and elevating/positioning for solar array construction. Includes industry overview and outlook for renewable energy production. | Prerequisites: Apprentice status or permission of the Apprenticeship Coordinator. | | Occ | L+L 2.0 2.0 2.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| MWR218 | 2021 Fall | Compressor Theory and Maintenance - Millwright Apprenticeship | | Operating theory and components of types of positive displacement compressors. Compressor configuration, operating parameters, safety, and maintenance procedures are examined. | Prerequisites: Apprentice status or permission of the Apprenticeship Coordinator. | | Occ | L+L 2.0 2.0 2.0 | T |
| MWR219 | 2021 Fall | Turbine Maintenance - Millwright Apprenticeship | | Explores the machines and auxiliary equipment used in the power production industry. Highlights the function and performance of a typical gas turbine, and includes hydraulic bolting procedures. | Prerequisites: Apprentice status or permission of the Apprenticeship Coordinator. | | Occ | L+L 2.0 2.0 2.0 | T |
| MWR298AA | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | Prerequisites: Permission of Program Director or Instructor. | | Occ | LAB 1.0 1.0 0.0 | Z |
| MWR298AB | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student | Prerequisites: Permission of Program Director or Instructor. | | Occ | LAB 2.0 2.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | development. COMMON COMPETENCY COURSE | | | | | |
| MWR298AC | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | Prerequisites: Permission of Program Director or Instructor. | | Occ | LAB 3.0 3.0 0.0 | Z |
| NAV101 | 2005 Fall | Elementary Navajo I | | Basic grammar, pronunciation, and vocabulary of the Navajo language. Practice of listening, speaking, reading, and writing skills. Includes the study of the Navajo culture with participation in an off-campus Navajo cultural event | Prerequisites: None. | | Acad | LEC 4.0 4.0 4.0 | S |
| NAV102 | 2014 Fall | Elementary Navajo II | | Continued study of grammar, pronunciation, and vocabulary of the Navajo language. Emphasis on listening, speaking, reading, and writing skills. | Prerequisites: A grade of C or better in NAV101 or permission of Department or Division. Completion of prerequisites within the last three years is required. | NAV102 includes the study of the Navajo culture with participation in an off-campus Navajo cultural event. | Acad | LEC 4.0 4.0 4.0 | S |
| NAV115 | 2007 Fall | Beginning Navajo Conversation I | | Beginning conversational Navajo with emphasis on basic listening and speaking skills, including basic pronunciation, vocabulary, sentence structure, and cultural awareness | Prerequisites: None. | | Acad | LEC 3.0 3.0 3.0 | S |
| NAV116 | 2014 Fall | Beginning Navajo Conversation II | | Continued development of speaking and listening skills for effective communication in Navajo. Focuses on vocabulary for home, | Prerequisites: A grade of C or better in NAV115 or permission of Department or Division. Completion of | | | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | community, schools, and businesses | prerequisites within the last three years is required. | | | | |
| NAV201 | 2014 Fall | Intermediate Navajo I | | Continued study of the Navajo language. Continued practice and development of listening, speaking, reading, and writing skills. Emphasis on fluency and accuracy of the Navajo language. Includes continued study of Navajo people and cultures. | Prerequisites: A grade of C or better in NAV102 or permission of Department or Division. Completion of prerequisites within the last three years is required. | Course Attribute(s): General Education Designation: Cultural Diversity - [C] | Acad | LEC 4.0 4.0 4.0 | S |
| NAV202 | 2014 Fall | Intermediate Navajo II | | Continued study of the Navajo language. Continued practice and development of listening, speaking, reading, and writing skills. Emphasis on fluency and accuracy of the Navajo language. Includes continued study of Navajo people and cultures. | Prerequisites: A grade of C or better in NAV201 or permission of Department or Division. Completion of prerequisites within the last three years is required. | Course Attribute(s): General Education Designation: Cultural Diversity - [C] | Acad | LEC 4.0 4.0 4.0 | S |
| NAV298AA | 2023 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. | Prerequisites: Permission of Program Director or Instructor. | | Acad | LAB 1.0 1.0 0.0 | Z |
| NAV298AB | 2023 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. | Prerequisites: Permission of Program Director or Instructor. | | Acad | LAB 2.0 2.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Allows the best aspects of independent study and individualized learning to be combined to maximize student development. | | | | | |
| NAV298AC | 2023 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. | Prerequisites: Permission of Program Director or Instructor. | Acad | | LAB 3.0 3.0 0.0 | Z |
| NCE101 | 2013 Spring | Introduction and Overview of Cancer Disease | | Introduction and overview of the disease and treatment of cancer including cancer origin, development, pathology, staging, hematopoiesis, epidemiology, diagnosis modalities, treatment options, cancer research and differentiation of solid tumors versus nonsolid tumors. Effective analysis, synthesis, and evaluation of topics through written discourse. | Prerequisites: Health care professional or permission of Department or Division. | Under the terms and conditions as specified in a legal agreement between GateWay Community College and Banner Health Systems, instructors of NCE101 must be an Oncology Certified Nurse and employed by Banner Health Systems. | Occ | LEC 2.0 2.0 2.0 | S |
| NCE102 | 2016 Spring | Exploring the World of Nursing for the High School Student (Summer Camp) | | Overview of the philosophy, core values, policies, competencies and curricular components of the Maricopa Community College District Nursing Program (MCCDNP). Introduce the use of the nursing process, utilization of critical thinking skills, and sound decision-making principles in the clinical setting. Examine the communication process, time | Prerequisites: None. Corequisites: HCC/RES109. | NCE102 is designed for High School students. | Occ | LAB 1.5 4.5 4.5 | G |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | management, stress reduction, and the transition in role expectations between High school and College Students. Explore the roles of Licensed Practical Nurse (LPN), Registered Nurse (RN) and advance practice nursing. Clinical experience (job shadowing) will be held in participating hospitals. | | | | | |
| NCE103 | 2016 Spring | Psychiatric Technician Overview | | Students learn to care for patients with a wide variety of mental illness to include anxiety, mood, personality and psychotic disorders, as well as post-traumatic stress syndrome and behavioral issues. Psychiatric technicians follow physician/nurse instructions and hospital procedures. Identification of modalities to monitor patient's mental and emotional status, physical symptoms related to mental disorders, and recognition of medication side effects. A variety of therapies will be covered to include rehabilitation and treatment programs, as well as recreational activities used as treatment options. | Prerequisites: None. | | Occ | LEC 2.0 2.0 2.0 | S |
| NCE105 | 2011 Spring | Job Preparation for the Health Care Professional | | Designing and creating resumes/curriculum vitae, job interview skills, electronic portfolio, and job searching in the health care market. Appearance, dress, and questioning skills emphasized. Role-playing exercises of correct interviewing techniques. | Prerequisites: None. | NCE105 may be repeated for a total of two and one-half (2.5) credits. | Occ | LEC 0.5 0.5 0.5 | S |
| NCE110 | 1996 Spring | Basic First Aid | | Basic first aid principles and interventions for the lay person. Topics include | Prerequisites: None. | | Occ | LEC 0.5 0.5 0.5 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | lacerations and bleeding control, seizures, chest pain, heat related problems, orthopedic injuries, and treatment of bites, stings, and burns | | | | | |
| NCE112 | 2001 Spring | Wilderness First Aid | | Knowledge and skills to care for an injured or suddenly ill person in remote locations. Treatment of wounds, bone, joint and soft-tissue injuries. Treatment and immobilization for head and neck injuries. Signs, symptoms and treatment for a seizure and animal bites and stings. Assessment and treatment of patients with chest pain, diabetes and asthma. Treatment for specific environmental emergencies | Prerequisites: None. | | Occ | LEC 1.0 1.0 1.0 | S |
| NCE115 | 2014 Summer | Nursing Healthcare Transition and Safe Passage | | Overview of American nursing practice, including historical and current perspectives. Key components of transitioning to Registered Nurse role in the United States. Contrasting Registered Nurse roles in US and in other countries. Career development and successful transitioning to role of nurse in the United States. | Prerequisites: Permission of Instructor. | | Occ | LEC 2.0 2.0 2.0 | S |
| NCE118 | 2005 Spring | Ventilator Management for Nurses | | Nursing care and management of the mechanically ventilated patient. Adjuncts to airway management including types and indications for use. Initiation, management and weaning of mechanical ventilation. | Prerequisites: Registered nurse or licensed practical nurse or respiratory therapist. | | | LEC 0.5 0.5 0.5 | S |
| NCE131 | 2014 Summer | Recognizing Skin Rashes in the School Aged Child | | Recognition of common childhood rashes, identify allergic rash manifestations, communicable rashes and infectious rashes. | Current Arizona Registered Nurse (RN) license or Licensed Practical Nurse (LPN) | Occ | | LEC 0.5 0.5 0.5 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | license or permission of Instructor. | | | | |
| NCE150 | 2020 Fall | Advanced Placement: Nurse Assisting | | Prepares the advanced placement nursing assistant student for the Certified Nursing Assistant (CNA) certification or Licensed Nursing Assistant (LNA) examination. The student will care for clients across the wellness/illness continuum within the scope of practice of the CNA/LNA. Includes basic problem solving processes specific to meeting the basic and holistic needs of clients, therapeutic communication skills, as well as interventions to ensure the needs and safety of the client. Provides opportunity for the student to show proficiency in the performance of basic nursing assistant skills and procedures through laboratory activities and participation in the care of clients. Licensing is the exclusive responsibility of the Arizona State Board of Nursing. | Prerequisites: One year full-time employment OR two years part-time employment of direct patient care within the past five years OR students who have successfully completed course work that included direct patient care experiences in allied health, medicine or nursing in the past five years, OR permission of the Division Chairperson. | | Occ | L+L 2.0 4.4 4.0 | R |
| NCE153 | 2021 Spring | Restorative Nursing Assistant | | Additional skills for nurse assisting in restorative care settings, such as reinforcing client performance of Activities of Daily Life and assistive efforts for optimizing client independence. | Prerequisites: Permission of Department or Program Director, or a grade of C or better in NCE150 or NUR158 or current CNA certificate. CNA certificate must remain in active status throughout the term of the course. | NCE153 may be repeated for credit. | Occ | L+L 1.75 1.75 1.75 | T |
| NCE161 | 2013 Fall | Foundation in Patient Advocacy | | Foundational knowledge and skills needed for the emerging profession of patient Advocacy. Role of the patient advocate, health care delivery | Prerequisites: None. | | Occ | LEC 2.0 2.0 2.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | methods, best practices, consumer and provider perspectives, insurance benefits and costs, and legal implications. | | | | | |
| NCE165 | 2010 Fall | Legal Aspects of Nursing | | Principles of legal aspects in nursing, rules of liability, negligent conduct and principles of malpractice. Review of the scope of nursing practices, and other legal matters. | Prerequisites: None. | | Occ | LEC 1.0 1.0 1.0 | S |
| NCE168 | 2009 Summer I | End of Life Care Training | | Nursing care at the end of life, pain management, symptom management, ethical issues, communication, cultural considerations, loss, grief and bereavement. Achievement of quality palliative care and preparation for and care at the time of death | Prerequisites: None. | | Occ | LEC 1.0 1.0 1.0 | S |
| NCE170 | 1994 Summer I | Pharmacology for Nurses | | Review and update of selected pharmacological classifications. Includes dosages, administration methods and reactions | (Current license as Practical Nurse or Registered Nurse) or registered as student nurse or permission of Instructor. | | Occ | LEC 3.0 3.0 3.0 | S |
| NCE173 | 2019 Summer | Venipuncture | | Development of clinical skills for venipuncture. Emphasis on review of anatomy and physiology of vasculature of the arm, medical asepsis, and procedure. | Prerequisites: Permission of Instructor. | | Occ | LEC 1.0 0.5 0.5 LAB 0.0 24.0 1.5 | T |
| NCE175 | 2018 Fall | Licensed Practical Nurse Update | | Role and responsibilities of the Licensed Practical Nurse. Application of nursing care for medical-surgical patients, use of the nursing process and administration of medications. Includes expanded role of the Licensed Practical Nurse, principles of safe nursing practice, legal/ethical issues, human growth and development, therapeutic communication and physical | Prerequisites: Current license as a Practical Nurse. | | Occ | LEC 10.0 6.0 6.0 LAB 0.0 12.0 12.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | assessment skills. For Licensed Practical Nurses returning to active nursing in the acute care setting. | | | | | |
| NCE200 | 2011 Spring | Contemporary Leadership Concepts for Health Care | | Introduction to leadership and management concepts for work-readiness in health care fields. Professional role development of the beginning registered nurse. Includes organizational design and governance as well as leadership and management theories and qualities for the health care employee. | Prerequisites: Current Arizona Registered Nurse (RN) license or Licensed Practical Nurse (LPN) license or permission of Instructor. | NCE200 may be repeated for a total of five (5.0) credits. | Occ | LEC 1.0 1.0 1.0 | S |
| NCE201 | 1995 Fall | Physical Assessment | | Basic health assessment by collecting health histories and performing physical examinations. Relationship of sciences and humanities to holistic aspects of health. Assessment for normal, variations of normal, and deviations from normal findings | Current Practical Nurse (PN) or Registered Nurse (RN) license or permission of Instructor. | | Occ | LEC 3.0 3.0 3.0 | S |
| NCE202 | 2012 Fall | Overview of Physical Assessment of the Adult Client | | Overview of interviewing techniques and approaches to documenting a comprehensive health history and physical examination assessment techniques. Emphasis on the nursing process and health assessment skills. Performance of beginning level physical assessment. | (Current Nursing or Allied Health student, or current Arizona Registered Nurse (RN) license, or Licensed Practical Nurse (LPN) license, or recent graduate of an accredited nursing program) and permission of Instructor. | | Occ | LEC 1.0 1.0 1.0 | S |
| NCE203 | 2002 Spring | Interpretation of Laboratory Diagnostic Examinations | | Utilization of laboratory diagnostic examination results for evaluation of patient conditions. Normal results for selected body fluids. Abnormal results related to pathophysiological conditions of adults. Incorporation of results of examinations to assess, modify, and evaluate | Prerequisites: Registered Nurse or Licensed Practical Nurse Nursing students or permission of Instructor. | | Occ | LEC 0.5 0.5 0.5 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | therapy for patients with specific conditions. | | | | | |
| NCE204 | 2000 Summer I | Hemodynamics | | Events of the cardiac cycle related to normal hemodynamic waveforms and pressures. Purpose, procedure and potential complications related to hemodynamic invasive lines. Trouble shooting and preventative procedures for hemodynamic invasive lines. Normal and abnormal pressure forms related to various forms of pathophysiology. Treatments and interventions for specific cardiac diseases. Impact of paced rhythms, and intraaortic balloon pumps on normal hemodynamic waveforms. Safe removal procedure for hemodynamic devices. | Prerequisites: Registered nurse (RN) respiratory therapist or cardiovascular technician with knowledge of dysrhythmia recognition. | Occ | | LEC 1.0 1.0 1.0 | S |
| NCE205 | 2000 Spring | Emergency Room Nursing | | Roles of emergency health team. Medical/legal issues specific to emergency room care. Triage classifications for specific emergency room/department situations, nursing care for selected conditions, trauma, and disease processes. Organ donation issues, discharge procedures and client education. | Prerequisites: Registered Nurse (RN) or Licensed Practical Nurse (LPN) or currently enrolled in a nursing program or permission of Instructor. | | Occ | LEC 4.0 4.0 4.0 | S |
| NCE207 | 2016 Spring | Recognition and Nursing Management of the Deteriorating Patient | | This course will provide a scenario/simulation-based problem solving approach to recognize and manage the patient who has the potential for a deteriorating status in a wide variety of concept-oriented conditions. The ultimate goal is to prevent or reverse the clinical | Prerequisites: Current Arizona Registered Nurse (RN) license or Licensed Practical Nurse (LPN) license or registered as student nurse or permission of Instructor. | | Occ | LEC 0.5 0.5 0.5 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | deterioration and achieve optimum patient outcomes. | | | | | |
| NCE208 | 2004 Summer I | Neonatal Pathophysiology | | Pathophysiology and physiologic adaptations of the neonate to include assessment and management of respiratory, cardiac, hematological, immunological, neurological and fluid and electrolyte disorders. Acid-base regulation and hemodynamic dysfunction. | Prerequisites: Registered therapist registered nurse (RN) or pharmacist with neonatal experience. | | Occ | LEC 3.0 3.0 3.0 | S |
| NCE209 | 1998 Fall | SCHOOL HEALTH ASSISTING | | The role of the school health assistant. Legal issues related to the school health setting. Performance of vision, hearing, and scoliosis screenings. Documentation, vital signs, triage guidelines in the school health setting. Common diseases that affect school-age children. Child abuse issues and protocol. Common medications and their side effects. Documentation and procedures related to drug administration | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| NCE210 | 1995 Summer I | School Nurse Emergency Assessment Skills | | Update of emergency assessment in the school setting. Includes emergency assessment of seizures, asthma, head and neck injuries, heat-related problems, bites, stings, and burns, and orthopedic injuries | School nurse school health aide other health professionals or permission of Instructor. | | Occ | LEC 1.0 1.0 1.0 | S |
| NCE212 | 2011 Spring | Patient Education | | Current concepts relevant to planning and implementing a teaching plan, and the role the nurse has in patient education. Patient education instructional methods, educational theories, nursing process and case management in patient | Prerequisites: Current Arizona Registered Nurse (RN) license or Licensed Practical Nurse (LPN) license or permission of Instructor. | NCE212 may be repeated for a total of five (5.0) credits. | Occ | LEC 0.5 0.5 0.5 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | education. Focus on patient advocacy through education. | | | | | |
| NCE213ND | 1999 Fall | Long-Term Care Nursing Update | | Medicare and insurance documentation procedures for the long-term care patient. Medical-legal issues that pertain to the long-term care patient. Specific nursing procedures performed for the long-term care patient. | Prerequisites: Registered nurse (RN) licensed practical nurse (LPN) or health worker currently employed in a long-term care setting. | | Occ | LEC 0.5 0.5 0.5 | S |
| NCE214CA | 2019 Summer | Basic Electrocardiogram Interpretation | | Focuses on recognition of common cardiac rhythms. Includes major and minor reportable occurrences which affect a patient's status and priority interventions. | Prerequisites: Permission of Instructor. | | Occ | LEC 1.0 1.0 1.0 | S |
| NCE214ME | 1996 Spring | Advanced Metrology and IV Drug Therapy | | Advanced course in intravenous and pediatric calculations. Preparation for NCLEX-RN exam and Registered Nurse review of complex medication calculations. Emphasis on safe clinical practice using the nursing process to analyze and calculate pediatric fractional doses and critical care medications. | Prerequisites: Registered nurse or current student in Associate Degree Nursing program. | | | LEC 1.0 1.0 1.0 | S |
| NCE214MF | 2006 Fall | Advanced IV Drug Therapy | | Advanced course in drug calculation and administration using the ratio/proportion and dimensional analysis methods. Focus on intravenous medications and titrations for critical care, pediatric and high risk obstetric medications | Current student in Associate Degree Nursing program or permission of Instructor. | Occ | Occ | LEC 0.5 0.5 0.5 | S |
| NCE214MI | 2007 Summer I | Math and Medications for Intermediate Nursing Students | | Focus on basic mathematical concepts to calculate metric-apothecary conversion, dosage problems, intravenous flow rates using the ratio/proportion and dimensional analysis methods. These calculations will focus application to acute | Current student in Nursing program or permission of Department or Division. | | | LEC 0.5 0.5 0.5 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | care, long-term care, and pediatric specialty areas | | | | | |
| NCE214MM | 1995 Fall | Math/Methods of Drug Calculation | | Focuses on basic mathematical concepts using decimals and fractions to calculate fractional and metric-apothecary conversion dosage problems and intravenous flow rates. Emphasis on the dimensional analysis problem solving method | Prerequisites: None. | | Occ | LEC 1.0 1.0 1.0 | S |
| NCE214MO | 2006 Fall | Math/Methods for Beginning Nursing Students | | Focus on basic mathematical concepts to calculate metric-apothecary conversion, dosage problems and intravenous flow rates. Includes calculation problems with oral, parenteral, and reconstitution medications. Emphasis on the ratio/proportion and dimensional analysis problem solving methods | Current student in Associate Degree Nursing program or permission of Instructor. | | Occ | LEC 0.5 0.5 0.5 | S |
| NCE214ND | 1997 Summer I | Nursing Developmental Skills for Health Providers | | Updating specific nursing areas in order to enhance success in nursing courses and/or employment. | Prerequisites: Previous coursework or experience in nursing related skills or permission of Instructor. | NCE214ND may be repeated for a total of ten (10) credit hours. | Occ | LEC 1.0 1.0 1.0 | S |
| NCE214OP | 2023 Summer | Orientation to Nursing Program | | Overview of the philosophy, mission, vision, Nurse of the Future Competencies, student learning outcomes, and the constructivist framework of the MaricopaNursing program. Student expected to be prepared with basic concepts of therapeutic communication, the nursing process, pharmacology, introductory concepts of intravenous therapy and knowledge of fundamental concepts. Primary content areas: nursing process, with emphasis on the use of the | Prerequisites: Designee/advanced placement into the Nursing Program or permission of the Nursing Director. | NCE214OP designed for advanced placement students (i.e., transfer students, returning students, and/or Practical Nurses). | Occ | LEC 3.0 2.0 2.0 LAB 0.0 3.0 3.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | nursing process to develop a plan of care; utilization of critical thinking skills; problem-solving strategies, the communication process; psychiatric nursing competencies and role transition between LPN and RN scope of practice. | | | | | |
| NCE214PO | 2009 Fall | Tutored NCLEX Review For Nursing Students | | Brief review of nursing care by systems using an NCLEX review book. Focus on nursing process, prioritizing, and critical thinking related to application of nursing care in case study situations. Also practice multiple-choice questions. | Prerequisites: Currently enrolled nursing student, or permission of Instructor. | NCE214PO may be repeated for a total of six (6) credit hours. | Occ | LEC 2.0 2.0 2.0 | S |
| NCE215AA | 2002 Fall | Nursing Update: Pain Management | | Comprehensive pain assessment and pain management. Pharmacological agents, treatment modalities, and delivery systems. Regulatory agency policies, standards of care, and documentation guidelines. | Prerequisites: Registered Nurse or Licensed Practical Nurse or currently enrolled in a nursing program or permission of Instructor. | NCE215AA may be repeated for a total of five (5) credit hours. | Occ | LEC 0.5 0.5 0.5 | S |
| NCE215AB | 2002 Fall | Nursing Update: Wound and Skin Care | | Wound and skin assessment and documentation guidelines. Skin care protocols and interventions to prevent pressure ulcers and promote optimal healing. Wound care products and treatment options. | Prerequisites: Registered Nurse or Licensed Practical Nurse or currently enrolled in a nursing program or permission of Instructor. | NCE215AB may be repeated for a total of five (5) credit hours. | Occ | LEC 0.5 0.5 0.5 | S |
| NCE215AC | 2002 Fall | Nursing Update: Stoma Care | | Care of the patient with fecal and urinary diversions. Appliance selection, stoma care, and management of potential complications. Includes nutritional, psychological, and educational aspects of care. | Prerequisites: Registered Nurse or Licensed Practical Nurse or currently enrolled in a nursing program or permission of Instructor. | NCE215AC may be repeated for a total of five (5) credit hours. | Occ | LEC 0.5 0.5 0.5 | S |
| NCE215AD | 2005 Spring | Nursing Update: Advances in Diabetes Management | | Diabetes management and implications. Risk factors of diabetes and lifestyle | Prerequisites: None. | NCE215AD may be repeated for a total of five (5) credit hours. | Occ | LEC 0.5 0.5 0.5 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | modifications. Medication updates and new technological advances for the treatment of Type I and Type II diabetes. | | | | | |
| NCE215AE | 2006 Spring | Nursing Update: Cardiac Care | | Provides nurses with up-to-date information on prevention, diagnosis, and treatment of cardiovascular and related diseases. | Prerequisites: Registered Nurse (RN) or Licensed Practical Nurse (LPN) or other licensed personnel working with cardiac patients. | NCE215AE may be repeated for a total of ten (10) credit hours. | Occ | LEC 0.5 0.5 0.5 | S |
| NCE215ND | 1997 Summer I | Nursing Skills Update | | Enhancement and reinforcement of specific nursing skills. Special needs patients, patient assessment techniques, medicolegal responsibilities, and diagnostic procedures. | Prerequisites: None. | NCE215ND may be repeated for a total of ten (10) credit hours. | Occ | LEC 0.5 0.5 0.5 | S |
| NCE216AA | 2002 Fall | School Health Update: Assessment Skills | | Assessment skills for the school health setting. Assessment and management of selected school health problems including abdominal pain, head and spinal cord injuries, and environmental hazards. | Prerequisites: Registered Nurse or Licensed Practical Nurse or currently enrolled in a nursing program or permission of Instructor. | NCE216AA may be repeated for a total of five (5) credit hours. | Occ | LEC 0.5 0.5 0.5 | S |
| NCE216ND | 2002 Spring | School Nurse Skills Update | | Enhancement and reinforcement of specific skills encountered in the school health setting. Special needs of physically and emotional disabled children. Review of special procedures and medications used with special children populations. | Prerequisites: Current school nurse or school health aide. | NCE216ND may be repeated for a total of ten (10) credits. | Occ | LEC 0.5 0.5 0.5 | S |
| NCE218 | 2015 Fall | Ventilator Management for Critical Care and Emergency Room Nurses | | Patient care including indications, management and complications in mechanically ventilated patients. Types of mechanical ventilation, pharmacological management, care of the mechanically ventilated patient, intubation and | Prerequisites: Health care professional, or permission of Department or Division. | | | LEC 0.5 0.5 0.5 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | extubation, and tracheostomy management. | | | | | |
| NCE219 | 2005 Fall | Advanced First Aid for School Health Staff | | Advanced first aid principles and interventions for staff working in a school health setting. Topics include assessment and management of medical emergencies such as asthma, anaphylaxis, environmental emergencies, seizures and playground trauma | (Basic first aid training or experience) or permission of Instructor. | | Occ | LEC 0.5 0.5 0.5 | S |
| NCE220 | 1995 Spring | Advanced IV Therapy Skills for RNs | | Intravenous (IV) therapy skills utilized by the Registered Nurse in home health, long term care, and the acute care setting. Includes principles of care for specific central venous catheters, and infusion pumps. Also, legal implications of advanced IV practice | Current license as registered nurse or enrolled in an accredited RN program or permission of Instructor. | | Occ | LEC 0.5 0.5 0.5 | S |
| NCE221 | 2019 Summer | Patient Care Technician Skills | | Patient care technician skills and techniques which include: drawing blood, performing a variety of specimen collections, observing and reporting patient status, assisting in patient preparation and electrode placement for electrocardiograms, suctioning patients, performing urinary catheterizations, documentation and reporting of skill completion, maintaining patient confidentiality, and recognizing legal and ethical commitments related to patient care technician skills. | Prerequisites: Certified Nurse Assistant (CNA), Nurse Assistant course or equivalent within the past year, and permission of Continuing Education Program Director and/or Instructor. | Occ | | LEC 3.0 2.5 2.5 LAB 0.0 24.0 1.5 | R |
| NCE223 | 2019 Summer | LPN-IV Therapy and Medication Skills | | Terminology and anatomy related to intravenous therapy. Drug response factors, dosage, calculations, intravenous site dressing change, intravenous administration equipment, and | Prerequisites: Current license as Practical Nurse or permission of Instructor. | | | LEC 2.5 2.0 2.0 LAB 0.0 24.0 1.5 | R |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | initiating intravenous therapy. Documentation and procedures for laboratory check lists. Meets state nursing board requirements for initiating intravenous therapy and administrating intravenous medications. | | | | | |
| NCE224 | 1996 Summer I | Nursing Case Management | | Case management and managed care responsibilities, insurance strategies, utilization management, legal and ethical issues, quality improvement and discharge planning. | Prerequisites: Registered Nurse (RN) Licensed Practical Nurse (LPN) social worker or permission of Instructor. | | Occ | LEC 3.0 3.0 3.0 | S |
| NCE225 | 2012 Fall | Introduction to School Nursing | | Registered nursing skills necessary to prepare for employment in a School Health Setting. Triaging, school health office management skills, and legal issues and scope of practice of the school nurse. Health screening basics and immunization protocols, emergency response skills, and health teaching. | Current Arizona Registered Nurse (RN) license, or Licensed Practical Nurse (LPN) license, or recent graduate of an accredited nursing program, or permission of Instructor. | | Occ | LEC 2.0 2.0 2.0 | S |
| NCE226 | 2019 Summer | Pediatric Nursing Clinical Skills | | Clinical application of nursing theory to the pediatric patient. Focuses on effective physical assessment techniques, and changes in nursing skills for the pediatric patient. | Prerequisites: Registered Nurse (RN), or Licensed Practical Nurse (LPN), or permission of Instructor. Corequisites: NCE227. | NCE226 is designed for the experienced nurse who is considering transferring to a pediatric unit of an acute care hospital. NCE226 may be repeated for a total of five (5.0) credits. | Occ | LAB 1.0 45.0 3.0 | R |
| NCE227 | 2011 Summer I | Science of Pediatric Nursing | | Preparation for relocation to the pediatric unit the hospital nurse. Application of pediatric nursing theory based upon the nursing process. | Prerequisites: Registered Nurse (RN), or Licensed Practical Nurse (LPN), or permission of Instructor. Corequisites: NCE226. | NCE227 may be repeated for a total of five (5.0) credits | Occ | LEC 1.0 1.0 1.0 | S |
| NCE228 | 2023 Fall | Holistic Nursing Fundamentals-Certification Exam Preparation | | Preparation for the holistic nursing certification examination. Includes holistic nursing philosophy, foundations, core values, standards, and principles. | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Covers self-care and self-reflection, theories, Integrative Health and Wellness Assessments (IHWA), in addition to development of, goals, and strategies for implementation of individualized care plans. Also includes complementary modalities as well as theories and research in the field of holistic nursing. | | | | | |
| NCE230 | 2019 Summer | PICC Line Insertion | | Overview of the care, maintenance and insertion of Peripherally Inserted Central Catheter (PICC) lines. Advantages of PICC lines, legal implications, types, as well as anatomy and physiology for proper insertion. | Prerequisites: Current license as a Registered Nurse. | | | L+L 0.5 24.0 1.5 | R |
| NCE231 | 2003 Fall | Pharmacology for Critical Care and Emergency Room Nurses | | Pharmacology update for emergency department and critical care personnel on new drug therapies and related patient care protocols. Pharmacological management of cardiac and respiratory system disorders, complications, and emergency interventions. Patient management protocols for conscious sedation. New pharmacological agents for the treatment and management of diabetes and other endocrine disorders. | Prerequisites: Registered Nurse or permission of Instructor. | Occ<br><br>Occ | | LEC 1.0 1.0 1.0 | S |
| NCE232 | 2004 Spring | Health Assessment of the School Age Child | | Comprehensive health assessment foundation. Development of interviewing skills, obtaining health histories, and conducting physical examinations on the school age child. Identification and management of minor illnesses and health problems | School nurse or current Registered Nurse (RN) licensure. | | | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | common to school age children | | | | | |
| NCE233 | 2004 Summer I | Nursing Care of the Special Needs Child | | Overview of congenital and acquired pediatric conditions, chronic illnesses and physical challenges that may lead to developmental delay or educational dysfunction. Application of the nursing process to provide care for the special needs child. Developmental assessment tools, skilled nursing interventions and environmental factors. Resources for disabled and chronically ill children through family, educational system and the community | School nurse or current registered nurse (RN) licensure. | Occ | | LEC 3.0 3.0 3.0 | S |
| NCE234 | 2004 Summer I | Fundamentals of School Nursing Practice | | Assessment, development, implementation and evaluation of school health programming. Focus on nursing theory as it relates to school health programming. Program management, professional development, dealing with change, health education, interdisciplinary interaction and the role of the professional nurse in the school setting | School nurse or current registered nurse (RN) licensure. | | Occ | LEC 3.0 3.0 3.0 | S |
| NCE235 | 2004 Summer I | Conscious Sedation | | Conscious sedation criteria and protocols. Nursing responsibilities and interventions pre-, intra- and post- procedure. Medications commonly used for conscious sedation, monitoring equipment, potential complications and required documentation. | Prerequisites: Registered nurse (RN) or permission of Instructor. | | | LEC 0.5 0.5 0.5 | S |
| NCE237 | 2011 Summer I | Care and Management of Vascular Access Devices | | Types of vascular catheters, types of clients who use them and clinical indications for each. Care for the different | Prerequisites: Current Arizona Registered Nurse (RN) license or Licensed Practical | Occ | | LEC 0.5 0.5 0.5 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | devices, differences in tip locations and the types of infusion therapies infused through each device. | Nurse (LPN) license or registered as student nurse or permission of Instructor. | | | | |
| NCE242 | 2001 Spring | Twelve Lead Electrocardiogram (EKG) Interpretation | | Normal and abnormal wave forms of the cardiac cycle. Normal and abnormal heart axis. Differences between ventricular and supraventricular tachycardia. Various types of blocks. Identification of heart chamber enlargement. Injury, ischemic and necrotic heart patterns. Effect of specific drugs and electrolyte disorders on electrocardiograms (EKG) | Basic electrocardiogram (EKG) experience or previous course work in dysrhythmia interpretation or permission of Instructor. | | Occ | LEC 0.5 0.5 0.5 | S |
| NCE243 | 2019 Summer | Nursing Skill and Competency Review | | Resume writing, interpersonal and therapeutic communication, teamwork concepts, IV Skills and pharmacological review. Central line catheter care, nutritional management, urinary catheterization, NG insertion and suctioning, respiratory management, basic wound care, and patient assessment skills. | Prerequisites: Permission of Instructor. | | Occ | LEC 3.5 2.5 2.5 LAB 0.0 90.0 6.0 | R |
| NCE245 | 2011 Summer I | Introduction to Holistic Nursing | | Philosophy and theories of holism applied to nursing practice. Focus on the physical, emotional, psychological, social, and spiritual needs of the client. Emphasis on application of the nursing process from a holistic perspective. Healing relationship model, self-care concept, nurse-patient communication, health care ethics, therapeutic environment, and cultural sensitivity. | Current Arizona Registered Nurse (RN) license or Licensed Practical Nurse (LPN) license or permission of Instructor. | NCE245 may be repeated for a total of five (5.0) credits | Occ | LEC 1.0 1.0 1.0 | S |
| NCE246AA | 2011 Spring | Basic Fetal Heart Monitoring | | Application of basic concepts and knowledge of fetal | Prerequisites: Current Arizona Registered | NCE246AA is designed for the experienced nurse who is | Occ | LEC 1.0 1.0 1.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | monitoring to assist the antepartum and intrapartum nurse in providing effective nursing care to ensure fetal well-being. | Nurse (RN) license or Licensed Practical Nurse (LPN) license or permission of Instructor. | considering transferring to a maternal/child health hospital unit. NCE246AA may be repeated for a total of five (5.0) credits. | | | |
| NCE249 | 2002 Spring | Basic Critical Care Nursing | | Foundation in basic critical care for nurses who are new or interested in entering the critical care environment. Including anatomy, physiology, and pharmacology. Disease management for the following systems: cardiac, respiratory, neuroscience, gastrointestinal, renal, endocrine and hematology, hemodynamics and ventilator management | Current license as Registered Nurse or Practical Nurse or recent graduate of an accredited nursing program or permission of Instructor. | | Occ | LEC 4.0 4.0 4.0 | S |
| NCE249AA | 2002 Spring | Critical Care: Cardiac | | Foundation in basic critical care for nurses who are new or interested in entering the critical care environment. Including anatomy, physiology, and pharmacology. Disease management for the cardiac system | Current license as Registered Nurse or Practical Nurse or recent graduate of an accredited nursing program or permission of Instructor. | | Occ | LEC 1.0 1.0 1.0 | S |
| NCE249AB | 2002 Spring | Critical Care: Respiratory | | Foundation in basic critical care for nurses who are new or interested in entering the critical care environment. Including anatomy, physiology, and pharmacology. Disease management for the respiratory system | Current license as Registered Nurse or Practical Nurse or recent graduate of an accredited nursing program or permission of Instructor. | | Occ | LEC 1.0 1.0 1.0 | S |
| NCE249AC | 2002 Spring | Critical Care: Neurologic | | Foundation in basic critical care for nurses who are new or interested in entering the critical care environment. Including anatomy, physiology, and pharmacology. Disease management for the neurologic system | Current license as Registered Nurse or Practical Nurse or recent graduate of an accredited nursing program or permission of Instructor. | | Occ | LEC 1.0 1.0 1.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| NCE249AD | 2002 Spring | Critical Care: Endocrine and Renal | | Foundation in basic critical care for nurses who are new or interested in entering the critical care environment. Including anatomy, physiology, and pharmacology. Disease management for the endocrine and renal systems | Current license as Registered Nurse or Practical Nurse or recent graduate of an accredited nursing program or permission of Instructor. | | Occ | LEC 0.5 0.5 0.5 | S |
| NCE249AE | 2002 Spring | Critical Care: Gastrointestinal | | Foundation in basic critical care for nurses who are new or interested in entering the critical care environment. Including anatomy, physiology, and pharmacology. Disease management for the gastrointestinal system | Current license as Registered Nurse or Practical Nurse or recent graduate of an accredited nursing program or permission of Instructor. | | Occ | LEC 0.5 0.5 0.5 | S |
| NCE251 | 2009 Spring | Telemetry Nursing | | Cardiac anatomy and physiology and the conduction system. Elements of a cardiac assessment. Recognition of arrthymia and cardiac abnormalities seen on electrocardiogram (EKG). Indications for temporary and permanent pacing. Drug groups and their interactions specific to the cardiac patient. Normal and abnormal lab values for the cardiac patient. Pre- and post-procedure care for cardiac procedures. Nursing interventions and emergency treatment. | Prerequisites: Registered Nurse (RN) and a grade of C or better in NCE214CA or equivalent. | | Occ | LEC 3.0 3.0 3.0 | S |
| NCE255 | 2001 Fall | Death, Grief, and Bereavement | | Grief and bereavement care for the client and family. Ethical and cultural issues in terminal care, children and death, AIDS related death issues, suicide, homicide and survivor interventions | Prerequisites: None. | | Occ | LEC 2.0 2.0 2.0 | S |
| NCE257 | 2011 Spring | Science of Maternity Nursing | | Preparation for relocation to the maternal/child health unit the hospital nurse. Application of maternal/child nursing | Prerequisites: Current Arizona Registered Nurse (RN) license or Licensed Practical | NCE257 may be repeated for a total of five (5.0) credits. | Occ | LEC 1.0 1.0 1.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | theory based upon the nursing process. | Nurse (LPN) license or permission of Instructor. | | | | |
| NCE258 | 2018 Fall | Maternity Nursing Clinical Skills | | Clinical application of nursing theory to the maternal/child patient. Focuses on effective physical assessment techniques, determining neonatal status, and maternal physiological and psychological well-being. | Prerequisites: Current Arizona Registered Nurse (RN) license or Licensed Practical Nurse (LPN) license or permission of Instructor. | NCE258 is designed for the nurse who would like to transfer to the maternal/child health unit of an acute care hospital. NCE258 may be repeated for a total of five (5.0) credits. | Occ | LAB 1.0 1.0 1.0 | T |
| NCE259 | 1998 Fall | Advanced Critical Care Nursing | | Provides the experienced Critical Care Nurse with an opportunity to build on basic critical care knowledge. Advanced concepts in assessment, hemodynamic monitoring, pathophysiology of disease processes, and use of the Nursing Process for critically ill patients with complex, multisystem disorders. Designed to help prepare experienced Critical Care Nurses for the certification examination for Critical Care Nursing offered by the American Association of Critical Care Nurses. | Prerequisites: A grade of C or better in NCE249 or Registered Nurse working in Critical Care or permission of Instructor. | | Occ | LEC 4.0 4.0 4.0 | S |
| NCE260 | 2001 Summer I | Intra-Aortic Balloon Pump | | Mechanics of the cardiac cycle. Physiologic effects of the intra-aortic balloon pump. Indications and contraindications. Components, operation, care and maintenance of the intra-aortic balloon pump. Complications and nursing implications with the use of the intra-aortic balloon pump. | Prerequisites: Registered Nurse (RN) or cardiovascular technician who has completed a Basic EKG course and has Critical Care Training. | | | LEC 0.5 0.5 0.5 | S |
| NCE261 | 2019 Summer | Ultrasound-Guided Peripheral Intravenous Access | | Technique of ultrasound-guided peripheral venous access. Client selection for procedure, selection of vasculature, and troubleshooting using ultrasound guidance | Prerequisites: Current Arizona Registered Nurse (RN) license or Licensed Practical Nurse (LPN) license or registered as student | Occ | | L+L 0.5 24.0 1.5 | R |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | equipment. Use of equipment and hands-on, simulated practice of catheter placement. | nurse or permission of Instructor. | | | | |
| NCE262 | 2001 Summer I | Legal Medical Consulting | | Role of the legal medical consultant in specific litigation. Importance of the law library. Definition of ethics, professionalism, standards of practice, discovery and disclosure. Steps and procedures involved with legal research. Role of the legal medical expert as a witness. Alternative conflict resolution. Role of independent medical examination. Role of the insurance industry and risk management in legal medical issues | Licensed medical personnel or permission of Instructor. | | Occ | LEC 3.0 3.0 3.0 | S |
| NCE264 | 2002 Spring | Advanced Legal Medical Consulting/Civil Procedure | | Reinforcement and broadening of knowledge and skills required for a career in legal medical consulting. Civil litigation process from initial client contact, discovery, and trial to post trial period. Intensive case analysis and thorough exploration of legal theory, procedure, and strategy. Discussion of the Federal and Arizona Rules of Civil Procedure and hands on experience in the preparation of legal documents and the trial notebook | Prerequisites: A grade of C or better in NCE262 or equivalent. | | Occ | LEC 3.0 3.0 3.0 | S |
| NCE265 | 2014 Summer | Triage Skills for Urgent Care Staff | | Identification of high risk aspects of frequent medical complaints. Instruction in avoiding errors when triaging patients in the urgent care setting. | Current Arizona Registered Nurse (RN) license or Licensed Practical Nurse (LPN) license or permission of Instructor. | | Occ | LEC 0.5 0.5 0.5 | S |
| NCE266 | 2015 Spring | Recognition and Management of the Patient with Allergies | | Allergy process, types of allergies and their presentations, levels and types of reactions, as well as | Prerequisites: Health care professional or permission of Department or Division. | | | LEC 0.5 0.5 0.5 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | treatment, diagnostic testing and prevention strategies. | | | | | |
| NCE267 | 2018 Fall | IV Medication Administration and Advanced Metrology | | Knowledge and skills to safely prepare and administer intravenous medications and solutions. Includes advanced metrology to accurately calculate IV drug dosages and infusion rates. | Current Arizona Registered Nurse (RN) license or Licensed Practical Nurse (LPN) license or permission of Instructor. | NCE267 may be repeated for a total of five (5.0) credits | Occ | L+L 1.0 2.0 2.0 | T |
| NCE268 | 2015 Summer | Non Rash Infectious Diseases in the Pediatric Patient | | Epidemiology and symptomology of non rash producing infectious diseases often seen in children and identify ways to prevent, reduce, and control their spread. Meningococcal disease, Tuberculosis, influenza, Methicillin Resistant Staph Aureus (MRSA), pertussis, conjunctivitis, mononucleosis, streptococcal infections, hepatitis, and enterovirus D68. | Prerequisites: Current Arizona Registered Nurse (RN) license or Licensed Practical Nurse (LPN) license or permission of Instructor. | | Occ | LEC 0.5 0.5 0.5 | S |
| NCE271 | 2015 Summer | Pediatric Diabetes | | Provides an overview of diabetes in the pediatric population. Epidemiology and etiology, types of diabetes in children and symptom recognition, medication and diet management, complications, new technological devices, and family interventions. | Prerequisites: Current Arizona Registered Nurse (RN) license or Licensed Practical Nurse (LPN) license or permission of Instructor. | | Occ | LEC 0.5 0.5 0.5 | S |
| NCE272 | 2020 Fall | Certified Medication Assistant | | Completion of this course will qualify the student to sit for the certification examination to administer prescribed medications within defined state laws (Legislation A.R.S.32-1650.01). | Prerequisites: Students will need to have been a Certified Nursing Assistant (CNA) or a Licensed Nursing Assistant (LNA) for a minimum of six months, or completed the CNA or LNA course within the past year, or completed semester I of the Practical Nurse (PN) program, or completed | | | L+L 4.0 6.0 8.0 | R |



Occ

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | the first block of the Registered Nurse (RN) program, or permission of the Director or Program Director as students who have completed components of nursing programs may qualify for a CMA waiver. | | | | |
| NCE273 | 2020 Summer | Rehabilitation Technician | | The rehabilitation technician (RT) performs patient related care tasks, assists patients with activities of daily living and provides direct patient care under supervision of the licensed nurse and or licensed therapist. Obtains and records patient vital signs. Monitors and records daily intake and output. Obtains specimens, including non-invasive body fluids and blood specimens. Performs electrocardiogram (ECG) electrode placement, running ECG strips, and blood glucose monitoring. Assists physician, licensed nurse, or licensed therapist with diagnostic tests, clinical procedures, and other tasks as requested. Communicates patient needs and observed/reported changes in patient condition to supervising licensed nurse, physician or licensed therapist. Documents all interactions as directed by licensed nurse, physician, or licensed therapist. Assists licensed therapist in performing therapeutic procedures. Carries out assigned rehab tech duties such as cleaning treatment | Prerequisites: Valid certification or license as a nurse assistant (CNA or LNA) OR completion of a nurse assistant program within the past twelve (12) months OR permission of the Nursing Director. | Occ | | L+L 2.0 2.5 3.0 | R |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | areas, completing equipment maintenance and transporting patients. | | | | | |
| NCE274 | 2020 Summer | Industry Telemetry Nursing | | Overview of cardiac anatomy, physiology, and the conduction system. Demonstration of a cardiac assessment, review of normal and abnormal lab values, arrhythmias, and cardiac abnormalities seen on an electrocardiogram (ECG). Introduction to medications specific to the cardiac patient. Overview of cardiac procedures, nursing interventions, and emergency treatment. | Prerequisites: Current Arizona Registered Nurse (RN) license or Licensed Practical Nurse (LPN) license or permission of Instructor. | | Occ | L+L 4.0 4.5 5.0 | R |
| NCE275 | 2018 Fall | Registered Nurse Update | | Update of current general principles of nursing care, procedures and medication. | Prerequisites: Current Registered Nurse License. | | | LEC 10.0 6.0 6.0 LAB 0.0 12.0 12.0 | T |
| NCE276 | 2015 Fall | Clinical Teaching in Nursing: An Overview | | Applies Nurse of the Future Competencies and educational Constructivism learning theory to develop a foundation for nursing faculty. Designed to assist instructor to consistently plan, guide, and evaluate learning activities for nursing students in clinical environments. | Prerequisites: Current Registered Nurse License. | NCE276 may be repeated for a total of four (4) credit hours.<br><br>Occ | Occ | LEC 1.0 1.0 1.0 | S |
| NCE277 | 2019 Summer | Clinical Teaching in Nursing: A Practicum Experience | | Overview of the process, concepts and skills related to supervising nursing students in the clinical area with application of concepts learned. A mentored clinical experience to guide and facilitate the student in the development of skills of clinical instruction. | Prerequisites: Current Arizona Registered Nurse License, BSN required, but MSN preferred as per our accrediting and approval bodies. All health and safety requirements per the current Maricopa Nursing Clinical Instructor Handbook must be met prior to | NCE277 may be repeated for a total of seven and a half (7.5) credits. | Occ | LEC 1.5 0.5 0.5 LAB 0.0 45.0 3.0 | R |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | admission into this course. | | | | |
| NCE278 | 2020 Summer | Critical Care Nursing | | Foundations in critical care for nurses who are interested in entering the critical care environment or nurses who seek to increase their expertise in critical care. Includes basic anatomy, physiology, and pharmacology. Disease management for the following systems: cardiac, respiratory, neuroscience, gastrointestinal, renal, endocrine and hematology, hemodynamics and ventilator management. The lab includes case studies, simulation, and lab practice. | Prerequisites: Current license as a Registered Nurse or recent graduate of an accredited nursing program or permission of Instructor and/or employer. Licensed Practical Nurses will be allowed to take the course by request of their employer and/or with permission of the Instructor. | | Occ | L+L 4.0 4.5 5.0 | R |
| NCE282AA | 1993 Fall | Volunteerism for Nursing: A Service Learning Experience | | Service-learning field experience within human service organization/agency. | Prerequisites: Permission of Instructor. | NCE282AA may be repeated for a total of six (6) credit hours. Standard grading available according to procedures outlined in catalog. | Occ | LAB 1.0 1.0 0.0 | L |
| NCE290 | 2011 Summer I | Concepts of Aging | | Examine several concepts of aging: physiological, cognitive, spirituality, health promotion, and pharmacology of the older adult. Focus will be placed on caring for the aging patient and their family. | Current Arizona Registered Nurse (RN) license or Licensed Practical Nurse (LPN) license or registered as student nurse or permission of Instructor. | NCE290 may be repeated for a total of five (5.0) credits | Occ | LEC 1.0 1.0 1.0 | S |
| NCE291 | 2019 Summer | Nursing Skills and Patient Care in Simulation | | Review of basic skills. Remediation, guided learning, and simulation performance. | Prerequisites: Current Arizona Registered Nurse (RN) license or Licensed Practical Nurse (LPN) license or registered as student nurse or permission of Instructor. | NCE291 may be repeated for a total of five (5.0) credits. | Occ | LAB 1.0 45.0 3.0 | R |
| NCE292 | 2019 Summer | Simulation for Patient Care Experiences | | Review and practice of nursing skills. Remediation, guided learning, and simulation performance. | Prerequisites: Current Arizona Registered Nurse (RN) license or Licensed Practical Nurse (LPN) license or registered as student | NCE292 may be repeated for a total of ten (10) credits. | Occ | LAB 2.0 90.0 6.0 | R |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | nurse or permission of Instructor. | | | | |
| NCE293 | 2019 Summer | Team Management of Deteriorating Patients in Simulation | | Development of skills needed to effectively identify, assess, monitor, and respond to patients who are either deteriorating or at risk of deteriorating related to injury or disease process. | Prerequisites: Current licensure as a health professional or registered as a student in a health professional program of study, or permission of Instructor. | NCE293 may be repeated for a total of ten (10) credit hours. | Occ | LAB 2.0 90.0 6.0 | R |
| NCE298AA | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | Prerequisites: Permission of Program Director or Instructor. | | Occ | LAB 1.0 1.0 0.0 | Z |
| NCE298AB | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | Prerequisites: Permission of Program Director or Instructor. | | Occ | LAB 2.0 2.0 0.0 | Z |
| NCE298AC | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and | Prerequisites: Permission of Program Director or Instructor. | | Occ | LAB 3.0 3.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | | | | | |
| NET127 | 2000 Fall | How Computers Work | | Functional description of hardware component operation of the IBM and compatible microcomputers. Electronic and electromechanical components operation during bootup process and operating system utilization, RAM, RAM caching and the microprocessor, and data storage. Data storage description includes floppy disks, hard disk, CD-ROM, other disk type drives, and tape backup | Prerequisites: None. | | Occ | LEC 1.0 1.0 1.0 | S |
| NET181 | 2018 Fall | Visual BASIC for Technology | | Introductory coverage of programming techniques in Visual BASIC. Flowcharting, pseudocoding, coding, testing, and documenting programs in accordance with specifications | Prerequisites: None. | | Occ | LEC 3.0 2.0 2.0 LAB 0.0 3.0 3.0 | T |
| NET183AA | 2019 Spring | Operating Systems | | Designed to develop an understanding of operating systems and their interaction with hardware, software, networking, security, troubleshooting, IP addressing, user interfaces and operating system installation. The course is intended to help prepare students for entry-level industry certifications. | Prerequisites: None. BPC101AA recommended for those students unfamiliar with basic computer operations. | | | L+L 2.0 3.0 3.0 | T |



Occ

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| NET220 | 2021 Spring | Health Information Networking | | Designed to equip students with knowledge and skills applicable to entry-level careers in healthcare networking. Using Cisco hardware and software, aims to develop an in-depth understanding of the critical principles and practices required in this specialized field. | Prerequisites: A grade of C or better in CNT160AB, or Cisco Certified Network Associate (CCNA) certification, or permission of Instructor. | | Occ | L+L 2.0 4.0 4.0 | T |
| NLT100 | 2020 Fall 1 | Nail Technology I | | Introduction to basic nail services, general sciences, safety, and infection control practices in the nail care industry. | Prerequisites: None. | | CLK | 200 | |
| NLT105 | 2020 Fall 1 | Nail Technology II | | Apply advanced techniques and continue to build on previous concepts learned in nail services, general sciences, safety, and infection control in the nail industry. | Prerequisites: None. | | CLK | 200 | |
| NLT110 | 2020 Fall 1 | Nail Technology III | | This course is designed to prepare Nail Technology students for the written and practical examinations for Arizona State Board of Cosmetology licensure. Students will master and apply previous concepts learned in nail services, general sciences, and business skills in the nail care industry. | Prerequisites: None. | | CLK | 200 | |
| NMS120 | 2016 Fall | Media in Cyberspace | | Using on-line material, investigates how the new information technologies affect the more traditional media. The effect on consumers and society. | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| NMS160 | 2015 Summer | Sports Media Careers | | Introduction to the professions, organizations, and media occupations within sports management. Examines professional and not-for-profit organizations, career opportunities in | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | collegiate and community sports organizations, and career opportunities in the traditional and non-traditional media arenas. Includes resume writing, cover letters, career choices, interviews, and job searching strategies for sports management organizations. | | | | | |
| NMS215 | 2022 Fall | Electronic Newsroom | | Creating, writing, designing, managing, promoting, and publishing the online student publication through team effort. Emphasis on style, consistency, and news/information judgment combined with community involvement. | Prerequisites: A grade of C or better in JRN210 or NMS120 or JRN213 or permission of Instructor. | | Occ | L+L 3.0 5.0 5.0 | T |
| NUC100 | 2021 Spring | Introduction to Nuclear Medicine Technology | | Role of the nuclear medicine technologist job duties, responsibilities, working conditions and work environments. Certification and licensing requirements for the nuclear medicine technologist, shadowing experience specific to the nuclear medicine department. | Prerequisites: None. | | Occ | LEC 1.0 1.0 1.0 | S |
| NUC101 | 2021 Spring | Essentials of Nuclear Medicine Technology | | Introduction to the essential information for the Nuclear Medicine Technology program. | Prerequisites: Admission to Nuclear Medicine Technology program. | | Occ | LEC 1.0 1.0 1.0 | S |
| NUC103 | 2021 Spring | Nuclear Medicine Image Evaluation I | | Faculty-led case presentation with reinforcement of processing parameters. | Prerequisites: Admission to Nuclear Medicine Technology program. | | Occ | L+L 1.0 3.0 3.0 | T |
| NUC110 | 2018 Summer | Introduction to Radiation Physics and Biology for Nuclear Medicine | | Atomic structure, types of radiation, radiation biology, and radiation protection. | Prerequisites: Admission to Nuclear Medicine Technology program. | | Occ | LEC 3.0 3.0 3.0 | S |
| NUC112 | 2021 Spring | Nuclear Medicine Quality Control Laboratory | | Introduction to the nuclear medicine laboratory rules, equipment operation, and quality control (QC). | Prerequisites: Admission to Nuclear Medicine Technology program. | | Occ | LAB 1.0 3.0 3.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| NUC113 | 2021 Spring | Nuclear Medicine Clinical Applications Laboratory | | Establishing competencies by demonstration of nuclear medicine imaging and non-imaging procedures. | Prerequisites: Admission to Nuclear Medicine Technology program. | | Occ | LAB 1.0 3.0 3.0 | T |
| NUC114 | 2018 Summer | Nuclear Medicine Instrumentation | | Principles of safe operation for nuclear medicine imaging and non-imaging equipment, including quality control. | Prerequisites: Admission to Nuclear Medicine Technology program. | | Occ | LEC 3.0 3.0 3.0 | S |
| NUC116 | 2021 Spring | Nuclear Medicine Procedures I | | Skeletal, respiratory, gastrointestinal (GI) anatomy, physiology, pathology, and related clinical procedures and techniques. | Prerequisites: Admission to Nuclear Medicine Technology program. | | Occ | LEC 3.0 3.0 3.0 | S |
| NUC120 | 2018 Fall | Radiopharmaceutical/Pharmaceutical Administration for the Nuclear Medicine Technologist | | Techniques for the administration of radiopharmaceuticals and pharmaceuticals used by the nuclear medicine technologist. | Prerequisites: Admission to Nuclear Medicine Technology program. | | Occ | L+L 1.5 1.5 1.5 | T |
| NUC122 | 2018 Fall | Nuclear Medicine Imaging I Lab | | Protocols for opening/operating in a nuclear medicine department. Quality control, radiation safety, performance of bone scans, lung scans, and genitourinary procedures. | Prerequisites: Admission to Nuclear Medicine Technology program. | | Occ | LAB 1.0 3.0 3.0 | T |
| NUC124AA | 2009 Fall | Nuclear Medicine Theory I: Part A | | Non-imaging instrumentation to include gas-filled detector systems, scintillation detection systems, statistics, nuclear counting statistics, and laboratory equipment. Imaging instrumentation to include planar scintillation cameras, multicrystal scintillation cameras, solid-state detector systems, single photon emission computed tomography (SPECT). | Prerequisites: Admission to Nuclear Medicine Technology program. | | Occ | LEC 1.5 1.5 1.5 | S |
| NUC124AB | 2009 Fall | Nuclear Medicine Theory I: Part B | | Imaging instrumentation to include quality control of imaging systems and maintenance of image archiving systems. Computers in instrumentation, types of computers, number systems, general structure of computer | Prerequisites: Admission to Nuclear Medicine Technology program. | | Occ | LEC 1.5 1.5 1.5 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | hardware, software, communications, data management, internet, nuclear medicine computer systems and quality control of these systems. | | | | | |
| NUC126 | 2021 Spring | Nuclear Medicine Procedures II | | Endocrine and genitourinary anatomy, physiology, pathology, and clinical procedures and techniques. | Prerequisites: Admission to Nuclear Medicine Technology program. | | Occ | LEC 3.0 3.0 3.0 | S |
| NUC130 | 2021 Spring | Professionalism and Patient Care | | Communication and interaction skills, patient assessment, procedures involving transport, medical records, infection control, emergency, safety and venous access. | Prerequisites: Admission to Nuclear Medicine Technology program. | | Occ | LAB 1.0 3.0 3.0 | T |
| NUC170AA | 2009 Fall | Nuclear Medicine Cardiac Imaging I | | Cardiovascular anatomy, physiology and pathology as it relates to cardiac system imaging. Cardiac stress and rest testing, myocardial perfusion and viability, equilibrium radionuclide angiograph (ERNA or MUGA or RVG). First pass angiography, infarct imaging, major vessels flow studies and detection of deep vein thrombosis. | Prerequisites: Admission to Nuclear Medicine Technology program. | | Occ | LEC 1.5 1.5 1.5 | S |
| NUC170AB | 2009 Fall | Nuclear Medicine Cardiac Imaging II | | Cardiovascular imaging instrumentation, procedures, and processing. Radiopharmaceuticals and interventional drugs used in cardiovascular imaging. Non-pharmacologic stress testing. Patient care for the cardiac patient including procedures and pharmaceuticals. | Prerequisites: Admission to Nuclear Medicine Technology program. | | Occ | LEC 1.5 1.5 1.5 | S |
| NUC180 | 2023 Fall | Nuclear Medicine Physics and Instrumentation | | Principles of safe operation for nuclear medicine imaging and non-imaging equipment, including positron emission tomography (PET) systems and quality control. | Prerequisites: Admission to Nuclear Medicine Technology program or certified by the American Registry of Radiologic | | | LEC 4.0 4.0 4.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | Technologists (ARRT) [R.T. (N)] or the Nuclear Medicine Technology Certification Board (NMTCB) in Nuclear Medicine. | | | | |
| NUC202 | 2023 Fall | Nuclear Medicine Clinical Practicum I | | Supervised clinical application of current nuclear medicine practice reinforcing didactic and laboratory concepts. Focus on developing competency in introductory nuclear medicine procedures. | Prerequisites: Admission to Nuclear Medicine Technology program. | | Occ | LAB 3.0 15.0 0.0 | C |
| NUC203 | 2023 Fall | Nuclear Medicine Image Evaluation II | | Student led/instructor coached evaluation of images related to clinical situations and procedures. Demonstration of technical skills. | Prerequisites: Admission to Nuclear Medicine Technology program. | | Occ | L+L 1.0 3.0 3.0 | T |
| NUC212 | 2018 Summer | Clinical Practicum I | | Orientation to facility policies and departmental organization. Under direct supervision, clinical application of current nuclear medicine practice of patient care and clinical experiences with an emphasis on quality control (QC) procedures. | Prerequisites: Admission to Nuclear Medicine Technology program. | | Occ | LAB 1.5 9.0 0.0 | C |
| NUC214 | 2013 Fall | Fundamentals of Nuclear Medicine II | | Principles and applications of statistics as they relate to Nuclear Medicine. Configuration, function, and application of computers and networks in nuclear medicine. | Prerequisites: Admission to Nuclear Medicine Technology program. | | Occ | LEC 1.5 1.5 1.5 | S |
| NUC216 | 2023 Fall | Nuclear Medicine Procedures II | | Endocrine and genitourinary anatomy, physiology, pathology, and clinical procedures and techniques. | Prerequisites: Admission to Nuclear Medicine Technology program. | | Occ | LEC 3.0 3.0 3.0 | S |
| NUC220 | 2018 Summer | Sectional Anatomy for Nuclear Medicine | | Sectional human anatomy in the transverse, sagittal and coronal planes. Emphasis on the brain, neck, thorax, abdomenopelvic cavity and extremities. | Prerequisites: Admission to the Nuclear Medicine Technology Program or permission of Program Director. | NUC220 may be repeated up to five (5) times for a total of fifteen (15) credits. Repeats 5.0 15.0 | Occ | LEC 3.0 3.0 3.0 | S |
| NUC222 | 2018 Summer | Clinical Practicum II | | Supervised clinical application of current nuclear medicine practice reinforcing didactic | Prerequisites: Admission to Nuclear | | | LAB 3.0 15.0 0.0 | C |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | and laboratory concepts. Demonstrate developing competency in introductory nuclear medicine procedures. | Medicine Technology program. | | | | |
| NUC223 | 2021 Spring | Nuclear Medicine Image Evaluation II | | Student led/instructor coached evaluation of images related to clinical situations and procedures. Demonstration of technical skills. | Prerequisites: Admission to Nuclear Medicine Technology program. | | Occ | L+L 1.0 3.0 3.0 | T |
| NUC224 | 2013 Fall | Fundamentals of Nuclear Medicine III | | Policy and regulations of delivery systems health policy and ethics regarding the access of health care. Medical informatics implementation of clinical system data entry, patient data, administration, and medical quality assurance mandatory patient centered documentation for federal, state, regulatory, and credentialing agencies professional medical ethics, legal issues and patient rights. | Prerequisites: Admission to Nuclear Medicine Technology program. | | Occ | LEC 1.5 1.5 1.5 | S |
| NUC232 | 2018 Summer | Clinical Practicum III | | Under the supervision of licensed technologists, enhance skills and knowledge of current nuclear medicine practice with a focus on broadening procedure competencies. | Prerequisites: Admission to Nuclear Medicine Technology program. | | Occ | LAB 3.0 15.0 0.0 | C |
| NUC233 | 2021 Spring | Nuclear Medicine Image Evaluation III | | Advanced student-led serial evaluation of images related to clinical situations and procedures. Demonstration of technical skills. | Prerequisites: Admission to Nuclear Medicine Technology program. | | Occ | L+L 1.0 3.0 3.0 | T |
| NUC234 | 2021 Spring | Nuclear Medicine Department Administration | | Practical methods of leadership, ethics, advocacy, department management, continuous quality improvement, coding and reimbursement, and accreditation. | Prerequisites: Admission to Nuclear Medicine Technology program. | | Occ | LEC 3.0 3.0 3.0 | S |
| NUC236 | 2021 Spring | Nuclear Medicine Procedures III | | Central nervous system (CNS), tumor, hematopoietic and infection clinical procedures and techniques to | Prerequisites: Admission to Nuclear Medicine Technology program. | | Occ | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | demonstrate anatomy, physiology, and pathology. | | | | | |
| NUC240 | 2016 Fall | Clinical Pathology for Diagnostic Imaging | | Causes of disease etiology and impact on the human body. Common physiologic effects of disease on body systems. Correlations of disease, physical findings, clinical laboratory values and diagnostic imaging. Role of Diagnostic Medical Imaging (DMI) modalities in the diagnosis and treatment of selected disease processes as part of the health care team. Cultural implications in the prevention and treatment of disease. | Prerequisites: Admission to Nuclear Medicine Technology program. | | Occ | LEC 3.0 3.0 3.0 | S |
| NUC242 | 2018 Summer | Clinical Practicum IV | | Independently function under limited supervision of licensed technologists. Advancement of skills to include all required competencies. Practice diverse and appropriate methods of performing procedures. | Prerequisites: Admission to Nuclear Medicine Technology program. | | Occ | LAB 3.0 15.0 0.0 | C |
| NUC243 | 2018 Fall | Nuclear Medicine Image Evaluation IV | | Evaluation of images related to clinical situations and procedures. Demonstration of technical skills. Peer-reviewed literature. | Prerequisites: Admission to Nuclear Medicine Technology program. | | Occ | L+L 1.0 3.0 3.0 | T |
| NUC244 | 2021 Spring | Nuclear Medicine Radiopharmacy | | Radiopharmacy and adjunctive pharmaceutical preparation, calculation, administration, and quality control. | Prerequisites: Admission to Nuclear Medicine Technology program. | | Occ | L+L 3.0 4.0 4.0 | T |
| NUC246 | 2021 Spring | Nuclear Medicine Procedures IV | | Radiopharmaceutical therapy and theranostics clinical procedures and techniques. | Prerequisites: Admission to Nuclear Medicine Technology program or permission of Program Director. | | Occ | LEC 3.0 3.0 3.0 | S |
| NUC250 | 2021 Spring | Fundamentals of Computed Tomography and Elements of Magnetic Resonance Imaging | | Introduction to principles and operation of computed tomography (CT) scanner and magnetic resonance imaging (MRI). | Prerequisites: Admission to Nuclear Medicine Technology program or permission of the Program Director. | | Occ | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| NUC251 | 2021 Spring | Computed Tomography and Hybrid Imaging Case Analysis | | Anatomy, physiology, pathology, and techniques related to the performance of clinical computed tomography (CT) and hybrid imaging. | Prerequisites: Admission to Nuclear Medicine Technology program or permission of Program Director. | | Occ | LEC 3.0 3.0 3.0 | S |
| NUC252 | 2009 Fall | Clinical Practicum V | | Orientation to facility policies and procedures and departmental organization. Reinforcement and broadening of knowledge base related to patient care and the roles and responsibilities of the nuclear medicine technologist at the advanced level. Focus on progression to independent level of function in the areas of patient care, radiation protection, instrumentation imaging, non-imaging and computers, radiopharmacy, diagnostic and therapeutic procedures. Ethical and professional behaviors, Health Insurance Portability and Accountability Act (HIPAA) requirements. | Prerequisites: Admission to Nuclear Medicine Technology program. | | Occ | LAB 3.0 15.0 0.0 | C |
| NUC253 | 2018 Fall | Nuclear Medicine Image Evaluation V | | Emphasis on positron emission tomography (PET) therapy imaging and other studies new to the nuclear medicine imaging field. Evaluation of images related to clinical situations and procedures including patient history, patient preparation, name and energy of radiopharmaceutical, method of localization, dosimetry, and method of clearance. Normal and abnormal distribution. Need for additional views and/or procedures. Technical limitations, protocol and equipment parameters and procedure results. | Prerequisites: Admission to Nuclear Medicine Technology program. | | Occ | LAB 1.0 3.0 3.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Examination of professional journal articles. | | | | | |
| NUC259 | 2021 Spring | Fundamentals of Research in Nuclear Medicine | | Fundamental components to nuclear medicine research. | Prerequisites: Admission to Nuclear Medicine Technology program. | | Occ | LEC 3.0 3.0 3.0 | S |
| NUC260 | 2021 Spring | Research Methods and Design | | Exploration of knowledge and effective analysis of resources to promote best practice in imaging professions. Introduction to research design, statistical reasoning, and interpretation of the medical literature. Provide a basis for understanding and interpreting the literature for use in evidence-based practice. | Prerequisites: Admission to Nuclear Medicine Technology program. | | Occ | LEC 3.0 3.0 3.0 | S |
| NUC261 | 2013 Fall | Emerging Technologies | | Exploration of new and emerging technologies that will become tomorrow's standard of practice. Introduction to these new ideologies. Development and presentation of research findings. | Prerequisites: Admission to Nuclear Medicine Technology program. | | Occ | LEC 2.0 2.0 2.0 | S |
| NUC262 | 2018 Summer | Capstone Practicum | | Culminating course to integrate the educational process to facilitate role transition from student to graduate nuclear medicine technologist. | Prerequisites: Admission to Nuclear Medicine Technology program or permission of the Program Director. | | Occ | LAB 1.5 9.0 0.0 | C |
| NUC263 | 2021 Spring | Nuclear Medicine Research Presentation and Publication | | Presentation of research project at local, regional, or national meeting or submission of research project to scientific journal for publication. Critical evaluation of research projects. | Prerequisites: A grade of C or better in NUC259 and NUC260. | | Occ | LEC 3.0 3.0 3.0 | S |
| NUC270 | 2009 Fall | Nuclear Medicine Scientific Method | | Scientific research in the field of nuclear medicine. Abstract writing to include research study results, objectives, methods, observational and analytical techniques, and conclusion. | Prerequisites: Admission to Nuclear Medicine Technology program. | | Occ | LEC 1.0 1.0 1.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| NUC272 | 2018 Summer | Cardiac Practicum | | Comprehensive, advanced-level practical experience at a designated cardiac clinical site. | Prerequisites: Admission to Nuclear Medicine Technology program or certified by the American Registry of Radiologic Technologists (ARRT) in Nuclear Medicine [R.T. (N)] or the Nuclear Medicine Technology Certification Board (NMTCB) in Nuclear Medicine. | NUC272 may be repeated five (5) times for a total of seven and a half (7.5) credits. | Occ | LAB 1.5 9.0 0.0 | C |
| NUC276 | 2021 Spring | Nuclear Cardiology | | Cardiovascular anatomy, physiology, and pathophysiology as it relates to cardiac imaging including cardiac blood flow, electrophysiology, and function. Pharmacologic and exertional stress testing methods used in conjunction with imaging. Cardiac imaging instrumentation, acquisition and processing procedures, artifacts, and quality control. | Prerequisites: Admission to Nuclear Medicine Technology program or certified by ARRT [R.T. (N)] or the Nuclear Medicine Technology Certification Board (NMTCB) in nuclear medicine. | | Occ | L+L 3.0 4.0 4.0 | T |
| NUC280 | 2021 Spring | Nuclear Medicine PET Physics and Instrumentation | | Principles of safe operation for positron emission tomography (PET) systems and required quality control. | Prerequisites: Admission to Nuclear Medicine Technology program or certified by the American Registry of Radiologic Technologists (ARRT) [R.T. (N)] or the Nuclear Medicine Technology Certification Board (NMTCB) in Nuclear Medicine. | | Occ | LEC 3.0 3.0 3.0 | S |
| NUC283 | 2018 Summer | PET/CT Practicum | | Comprehensive, advanced-level practical experience at a Positron Emission Tomography/Computed Tomography (PET/CT) clinical site. | Prerequisites: Admission to Nuclear Medicine Technology program or permission of the Program Director. | NUC283 may be repeated five (5) times for a total of seven and a half (7.5) credits. | Occ | LAB 1.5 9.0 0.0 | C |
| NUC290 | 2018 Summer | Nuclear Medicine Seminar | | Review of content areas addressed on the American | Prerequisites: Admission to Nuclear | | | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Registry of Radiologic Technologists (ARRT), Nuclear Medicine Technology Certification Board (NMTCB), and Arizona state licensure examinations. Study and test-taking strategies. | Medicine Technology program. | | | | |
| NUC291 | 2023 Fall | Computed Tomography Registry and Board Exam Preparation | ICE291 | Discussion of concepts outlined in the American Registry of Radiologic Technologists (ARRT) published content specifications for their post-primary certification exam in computed tomography (CT). | Prerequisites: Permission of the Program Director or Instructor. | | Occ | LEC 1.0 1.0 1.0 | S |
| NUC292 | 2013 Spring | Radiopharmacy Practicum | | Comprehensive, high level practical experience at a Radiopharmacy clinical site. Cooperative work with direct and indirect supervisory personnel in a Radiopharmacy setting. Emphasis on technical components of Radiopharmacy procedures and radiation safety. | Prerequisites: Admission to Nuclear Medicine Technology program. | | Occ | LAB 1.0 3.0 0.0 | C |
| NUC303 | 2023 Fall | Nuclear Medicine Image Evaluation III | | Advanced student-led serial evaluation of images related to clinical situations and procedures. Demonstration of technical skills. | Prerequisites: Admission to Nuclear Medicine Technology program. | | Occ | L+L 1.0 3.0 3.0 | T |
| NUC316 | 2023 Fall | Nuclear Medicine Procedures III | | Central nervous system (CNS), tumor, hematopoietic and infection clinical procedures and techniques to demonstrate anatomy, physiology, and pathology. | Prerequisites: Admission to Nuclear Medicine Technology program. | | Occ | LEC 3.0 3.0 3.0 | S |
| NUC322 | 2023 Fall | Nuclear Medicine Clinical Practicum II | | Under the supervision of licensed technologists, enhance skills and knowledge of current nuclear medicine practice with a focus on broadening procedure competencies. | Prerequisites: Admission to Nuclear Medicine Technology program. | | Occ | LAB 3.0 15.0 0.0 | C |
| NUC350 | 2023 Fall | Fundamentals of Computed Tomography and Elements of Magnetic Resonance Imaging | | Introduction to principles and operation of computed tomography (CT) scanner and | Prerequisites: Admission to Nuclear Medicine Technology | | Occ | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | magnetic resonance imaging (MRI). | program or permission of the Program Director. | | | | |
| NUC359 | 2023 Fall | Research Methods and Design | | Exploration of knowledge and effective analysis of resources to promote best practice in imaging professions. Introduction to research design, statistical reasoning, and interpretation of the medical literature. Provide a basis for understanding and interpreting the literature for use in evidence-based practice. | Prerequisites: Admission to Nuclear Medicine Technology program. | | Occ | LEC 3.0 3.0 3.0 | S |
| NUC372 | 2023 Fall | Cardiac Practicum | | Comprehensive, advanced-level practical experience at a designated cardiac clinical site. | Prerequisites: Admission to Nuclear Medicine Technology program or certified by the American Registry of Radiologic Technologists (ARRT) in Nuclear Medicine [R.T. (N)] or the Nuclear Medicine Technology Certification Board (NMTCB) in Nuclear Medicine. | NUC372 may be repeated five (5) times for a total of seven and a half (7.5) credits. | Occ | LAB 1.5 9.0 0.0 | C |
| NUC382 | 2023 Fall | PET/CT Practicum | | Comprehensive, advanced-level practical experience at a positron emission tomography/computed tomography (PET/CT) clinical site. | Prerequisites: Admission to Nuclear Medicine Technology program or permission of the Program Director. | NUC382 may be repeated five (5) times for a total of seven and a half (7.5) credits. | Occ | LAB 1.5 9.0 0.0 | C |
| NUC392 | 2023 Fall | Computed Tomography Clinical Practicum I | | Use of correct computed tomography instrumentation, protocol implementation and positioning techniques. Application of patient safety measures and follow As Low As Reasonably Achievable (ALARA) practices to reduce radiation dose as established by the institution. Practice within established ethical and legal guidelines. Use of effective communication skills. | Prerequisites: Admission to Nuclear Medicine Technology program. | | Occ | LAB 3.0 15.0 0.0 | C |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| NUC402 | 2023 Fall | Computed Tomography Clinical Practicum II | | Reinforcement of clinical skills in a practical setting within established ethical and legal guidelines. Focus on use of correct tomography instrumentation, protocol implementation, and positioning techniques and application of patient safety measures and As Low As Reasonably Achievable (ALARA) practices to reduce radiation dose as established by the institution. Also includes use of effective communication skills. | Prerequisites: Admission to Nuclear Medicine Technology program. | | Occ | LAB 3.0 15.0 0.0 | C |
| NUC403 | 2023 Fall | Nuclear Medicine Image Evaluation IV | | Evaluation of images related to clinical situations and procedures. Demonstration of technical skills. Peer-reviewed literature. | Prerequisites: Admission to Nuclear Medicine Technology program. | | Occ | L+L 1.0 3.0 3.0 | T |
| NUC416 | 2023 Fall | Nuclear Medicine Procedures IV | | Radiopharmaceutical therapy and theranostics clinical procedures and techniques. | Prerequisites: Admission to Nuclear Medicine Technology program or permission of Program Director. | | Occ | LEC 3.0 3.0 3.0 | S |
| NUC422 | 2023 Fall | Nuclear Medicine Clinical Practicum III | | Independently function under limited supervision of licensed technologists. Advancement of skills to include all required competencies. Practice diverse and appropriate methods of performing procedures. | Prerequisites: Admission to Nuclear Medicine Technology program. | | Occ | LAB 3.0 15.0 0.0 | C |
| NUC432 | 2023 Fall | Capstone Practicum | | Culminating course to integrate the educational process to facilitate role transition from student to graduate nuclear medicine technologist. | Prerequisites: Admission to Nuclear Medicine Technology program or permission of the Program Director. | | Occ | LAB 3.0 9.0 0.0 | C |
| NUC434 | 2023 Fall | Nuclear Medicine Department Administration | | Practical methods of leadership, ethics, advocacy, department management, continuous quality improvement, coding and | Prerequisites: Admission to Nuclear Medicine Technology program. | | Occ | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | reimbursement, and accreditation. | | | | | |
| NUC444 | 2023 Fall | Nuclear Medicine Radiopharmacy | | Radiopharmacy and adjunctive pharmaceutical preparation, calculation, administration, and quality control. | Prerequisites: Admission to Nuclear Medicine Technology program. | | Occ | L+L 3.0 4.0 4.0 | T |
| NUC450 | 2023 Fall | Computed Tomography and Hybrid Imaging Case Analysis | | Anatomy, physiology, pathology, and techniques related to the performance of clinical computed tomography (CT) and hybrid imaging. | Prerequisites: Admission to Nuclear Medicine Technology program or permission of Program Director. | | Occ | LEC 3.0 3.0 3.0 | S |
| NUC459 | 2023 Fall | Nuclear Medicine Research Presentation and Publication | | Presentation of research project at local, regional, or national meeting or submission of research project to scientific journal for publication. Critical evaluation of research projects. | Prerequisites: A grade of C or better in NUC259 and NUC260. | | Occ | LEC 3.0 3.0 3.0 | S |
| NUC490 | 2023 Fall | Nuclear Medicine Seminar | | Review of content areas addressed on the American Registry of Radiologic Technologists (ARRT), Nuclear Medicine Technology Certification Board (NMTCB), and Arizona state licensure examinations. Study and test-taking strategies. | Prerequisites: Admission to Nuclear Medicine Technology program. | | Occ | LEC 3.0 3.0 3.0 | S |
| NUR101 | 2014 Spring | Student Success in Nursing | | Individual self-awareness and self management strategies for success with nursing study, clinical reasoning and testing success. Emphasis on the development of prioritizing and delegation skills for the nursing student. | Prerequisites: Permission of Instructor. | NUR101 may be repeated for a total of four (4) credit hours. Repeats 4.0 4.0 | Occ | LEC 1.0 1.0 1.0 | S |
| NUR102 | 2011 Fall | Nursing Process Transition | | Transitions paramedics to scope and practice of nursing. Focuses on nursing concepts and theories to meet basic human needs across the lifespan throughout the wellness/illness continuum. Theoretical concepts focus on clients of all ages with selected physiological and | Prerequisites: Arizona or National Paramedic Registry Certificate, and application and admission to Maricopa Nursing advanced placement. One year current healthcare work experience required or permission of Nursing | | Occ | LEC 4.0 4.0 4.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | psychological alterations. Emphasis on expanding the paramedic's skills and experience to transition to the role of the nurse utilizing nursing process and critical thinking in acute care and community settings. | Department Chairperson. Corequisites: NUR103. | | | | |
| NUR103 | 2018 Fall | Nursing Science Transition | | Application of nursing concepts and theories of health promotion to nursing care to meet basic human needs. Provides opportunity for the paramedic to develop clinical competency in selected nursing skills and care of clients across the lifespan experiencing altered physiologic functioning. Includes clinical experience with individuals, families, and small groups of clients in acute, long-term, and community settings to develop care plans, teaching plans, and discharge plans. | Prerequisites: Arizona or National Paramedic Registry Certificate, and application and admission to Maricopa Nursing with advanced placement. Minimum of one year current healthcare work experience required or permission of Nursing Department Chairperson. Corequisites: NUR102. | Occ | | LAB 4.0 12.0 12.0 | T |
| NUR104AA | 2018 Fall | Structured Nursing Review | | Structured nursing tutorial assistance and nursing study skills to help students achieve success in their respective block of nursing courses. Nursing process and critical thinking application skills emphasized. | Prerequisites: None. Corequisites: Enrollment in the Nursing program or permission of Department Chair. | NUR104AA ay be repeated for a total of six (6) credit hours. Course offered as Credit (P) No credit (Z) basis. | Occ | LEC 0.5 0.5 0.5 | S |
| NUR104AB | 2018 Fall | Structured Nursing Review | | Structured nursing tutorial assistance and nursing study skills to help students achieve success in their respective block of nursing courses. Nursing process and critical thinking application skills emphasized. | Prerequisites: None. Corequisites: Concurrent enrollment in the Nursing program or permission of Department Chair. | NUR104AB may be repeated for a total of eight (8) credits. Course offered as Credit (P) No credit (Z) basis. | Occ | LEC 1.0 1.0 1.0 | S |
| NUR106 | 2019 Summer | Nursing Theory and Science Transition (Paramedic Bridge) | | Introduction and utilization of Nurse of the Future competencies to develop knowledge, skills, and | Prerequisites: (Arizona or National Paramedic Registry Certificate), acceptance into the | NUR106 is intended for experienced paramedics seeking advanced placement to Maricopa Nursing. | Occ | LEC 9.0 5.5 5.5 LAB 0.0 | R |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | attitudes to provide safe, quality patient care across the wellness-illness continuum in selected medical-surgical and mental health patients. Basic care concepts and nursing process are utilized to meet the needs of adult and older adult patients. | Maricopa Nursing advanced placement, NUR187, and (one year current work experience utilizing Paramedic scope of practice or permission of Nursing Department Chairperson.). | | | 157.5<br>10.5 | |
| NUR150 | 2019<br>Summer | Practical Nurse Bridge Course | | Designed to bridge previously gained healthcare knowledge, skills, and abilities of the military Veteran student and/or Licensed Practical Nurse (LPN) seeking to refresh knowledge in the role of the practical nurse. Course includes didactic, laboratory, and clinical experiences for practical nursing including concepts and theories related to care of geriatric, adult, pediatric, and childbearing clients. Areas of didactic and clinical focus include: role of the practical nurse collaborating with other members of the healthcare team; concepts of health promotion and disease/illness prevention; therapeutic communication techniques; nutritional concepts; medication administration to include pharmacokinetics and pharmacodynamics of medications, nursing considerations in medication administration, and dosage calculation; documentation and concepts related to information technology. Emphasis in clinical practicum is on nursing care of pediatric and child-bearing families, and older adult residents of long | Prerequisites: A military Veteran with a health care designation (medic/corpsman) or a licensed practical nurse (LPN) who requires a refresher program. Approval of the Nursing Chair or designee and application packet completion is required. | Occ | | LEC<br>12.0 9.0<br>9.0 LAB<br>0.0<br>180.0<br>12.0 | R |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | term care facilities with selected alterations in health; concepts of delegation, prioritization and management of care for the practical nurse is integrated. | | | | | |
| NUR151 | 2018 Fall | Nursing Theory and Science I | | Introduction to fundamentals of nursing theory and practice utilizing critical thinking based on the nursing process and principles of evidence based practice. Focus on meeting basic human needs within the wellness/illness continuum. Theoretical concepts related to holistic care of well, geriatric, and adult clients. Provides safe nursing care to clients with selected alterations in health. Introduction to professional nursing practice. Applies concepts of health promotion, disease/illness prevention. Provides care based upon integration of pathophysiology, nutrition, communication and physical, biological, and psycho-social sciences. Uses information technology in performing and evaluating client care | Prerequisites: Admission into the Nursing Program. | Occ | | LEC 10.0 5.0 5.0 LAB 0.0 15.0 15.0 | T |
| NUR152 | 2023 Fall | Nursing Theory and Science I | | Introduction of Nurse of the Future competencies as a foundational framework for development of the professional nurse. Basic care concepts, the nursing process, and clinical reasoning are utilized to meet the needs of adult and older adult patients. | Prerequisites: Admission into the Nursing program. | | | LEC 9.0 4.0 4.0 LAB 0.0 16.88 15.0 | R |
| NUR158 | 2021 Spring | Nurse Assisting | | Introduction to the role of the nursing assistant for clients across the wellness/illness continuum within the nurse assisting scope of practice. | Prerequisites: Reading and math assessment as well as completion of all required Health and Safety documents. | NUR158 final admission requirements are determined by the Program Director and/or Division Chair and may be based on employer (partner) Occ | Occ | LEC 4.5 2.5 2.5 LAB 0.0 6.0 6.0 | R |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Includes basic problem solving processes specific to meeting the basic and holistic needs of clients, therapeutic communication skills, interventions to ensure the needs and safety of the client, specific types of diseases, conditions and alterations in behavior of the client. Focus is on the special needs of the older adult client in the acute and long-term care settings, and basic care skills and procedures. Provides opportunity for the development of clinical competency in the performance of selected nurse assisting skills and procedures through participation in the care of clients. | | requirements if the student is employed by the requesting agency. NUR158 meets the application and admission requirements for MaricopaNursing programs. | | | |
| NUR160PN | 2019 Summer | Practical Nursing Theory and Science I | | Core values of the practical nursing program, nursing history, standards, and scope of practice of the practical nurse. Safe nursing care of clients with selected alterations in health; fundamental concepts of health promotion, disease/illness prevention. Nursing care based upon integration of pathophysiology, nutrition, communication and physical, biological, and psycho-social sciences. Uses information technology in performing and documenting client care. | Prerequisites: Admission into the Fast Track Practical Nursing Program. | Occ | | LEC 11.0 6.0 6.0 LAB 0.0 225.0 15.0 | R |
| NUR171 | 2018 Fall | Nursing Theory and Science II | | Application of nursing theory and practice utilizing critical thinking based on the nursing process and evidence based practice. Holistic nursing concepts of health promotion, | Prerequisites: A grade of C or better in NUR151 or permission of Nursing Department Chairperson. | | | LEC 8.0 4.0 4.0 LAB 0.0 12.0 12.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | disease/illness prevention, and health restoration for adult and geriatric clients. Role development as the professional nurse member of the health care team. Participation in client teaching and discharge planning. Application of previous knowledge of physical, biologic, psycho-social sciences, and the cultural and spiritual aspects of nursing care. Application of nursing concepts in the development of plan of care to include pathophysiology, nutrition, pharmacology, and skills in communication. Uses information technology in planning, documenting, and evaluating client care | | | | | |
| NUR172 | 2023 Fall | Nursing Theory and Science II | | Utilization of Nurse of the Future competencies and clinical judgment measures to develop knowledge, skills, and attitudes to provide safe, quality patient care across the wellness-illness continuum in selected medical-surgical and mental health patients. | Prerequisites: A grade of C or better in (BIO202 and NUR152) or permission of Nursing Department Chair. | | | LEC 9.0 5.5 5.5 LAB 0.0 11.81 10.5 | R |
| NUR180PN | 2019 Summer | Practical Nursing Theory and Science II | | Holistic practical nursing concepts and theories related to care of childbearing, pediatric, adult, and geriatric clients. Role of the practical nurse collaborating with other members of the healthcare team. Concepts of health promotion and disease/illness prevention. Nursing care based upon integration of pathophysiology, nutrition, communication and physical, biological and psycho-social sciences. Information | Prerequisites: A grade of C or better in NUR160PN. | Occ<br><br>Occ | | LEC 11.0 6.0 6.0 LAB 0.0 225.0 15.0 | R |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | technology in performing and documenting client care. Emphasis on nursing care related to pediatric, child-bearing families, and adult clients with selected alterations in health; concepts of delegation, prioritization and management of care for the practical nurse based on the core values of the nursing program. | | | | | |
| NUR187 | 2020 Spring | Pharmacology and Medication Administration | | Overview of selected drug classifications and categories. Emphasis on principles of drug metabolism and effects, interactions and adverse reactions, medication administration, and nursing implications for safe practice with a focus on adult and older adult patients. Requires application of previous knowledge of physical, biological, and social sciences. | Prerequisites: Permission of Nursing Department/Division Chair. | Occ | | LEC 1.5 1.5 1.5 | S |
| NUR191 | 2023 Summer | Practical Nursing Transition | | Overview of the role of the practical nurse in the care of patients. Includes nursing standards and scope of practice of the practical nurse. Emphasis on nursing care related to pediatric and care of the well childbearing patient and childbearing family. Focus on the role of practical nurse in providing care through interventions consistent with established nursing care plans. | Prerequisites: A grade of C or better in NUR171, or NUR172, or permission of Nursing Department Chair. | Occ | | LEC 3.0 2.0 2.0 LAB 0.0 3.0 3.0 | T |
| NUR251 | 2018 Fall | Nursing Theory and Science III | | Application of critical thinking strategies related to holistic care of the newborn, pediatric, and childbearing clients. Integration of concepts related to holistic care of adults and | Prerequisites: A grade of C or better in (BIO202, BIO205 and NUR171) or permission of Nursing Department Chairperson. | | | LEC 8.0 4.0 4.0 LAB 0.0 12.0 12.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | geriatric clients with selected acute and chronic alterations in health. Integration of professional nursing standards in role development. Utilization of previous knowledge of physical, biologic, psycho-social sciences, and the cultural, spiritual aspects of nursing care. Integration of concepts of nutrition, pharmacology, communication, health promotion, and pathophysiology into nursing care. | | | | | |
| NUR252 | 2023 Fall | Nursing Theory and Science III | | Application of critical thinking strategies and clinical judgment measures related to holistic care of the newborn and childbearing patients. Integration of concepts related to holistic care of adults and older adult patients with selected acute and chronic alterations in health. Integration of professional nursing standards in role development. Utilization of previous knowledge of physical, biologic, psycho-social sciences, and the cultural, spiritual aspects of nursing care. Integration of concepts of nutrition, pharmacology, communication, health promotion, and pathophysiology into nursing care. | Prerequisites: A grade of C or better in [(CRE101 or appropriate district placement) and NUR172 and PSY101] or permission of Nursing Department Chair. | Occ | | LEC 9.0 5.5 5.5 LAB 0.0 11.81 10.5 | R |
| NUR271 | 2018 Fall | Nursing Theory and Science IV | | Integration of critical thinking strategies for complex holistic needs of high-risk clients with multi- system health alterations. Application of | Prerequisites: A grade of C or better in NUR251 or permission of Nursing Department Chairperson. | | | LEC 7.0 4.0 4.0 LAB 0.0 9.0 9.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | strategies related to holistic care of the client with psychiatric/ mental health disorders. Introduction to community based care. Assimilation of professional role into practice. Evaluation of care based on the knowledge of physical, biologic, psycho-social sciences, and the cultural and spiritual beliefs of clients. Development of nurse leadership and management roles. Integration of concepts of nutrition, pharmacology, communication, health promotion, and pathophysiology into nursing care | | | | | |
| NUR283 | 2023 Fall | Nursing Theory and Science IV | | Applies Nurse of the Future competencies and clinical judgment measures to practice and manage care for the child/family unit and adults requiring complex care throughout the wellness/illness continuum, and prepare for transition from student to professional nurse. | Prerequisites: A grade of C or better in (BIO205 and NUR252) or permission of Nursing Department Chair. | | | LEC 9.0 5.5 5.5 LAB 0.0 11.81 10.5 | R |
| NUR291 | 2018 Fall | Nursing Clinical Capstone | | Synthesis of the nursing process to facilitate role transition from student to graduate nurse within a preceptorship experience. Development of nurse leadership and management roles. | Prerequisites: A grade of C or better in NUR271 or permission of Nursing Department Chairperson. | Occ | | LAB 2.0 6.0 6.0 | T |
| NUR292 | 2014 Fall | Overview of Current Nursing Principles and Practice across the Lifespan | | Update of current principles and practice guidelines for returning nurses in pediatric, obstetrical and geriatric clients. Overview of nursing concepts, therapeutic interventions, and evidence- | Prerequisites: Permission of Instructor. | Occ | Occ | LEC 2.0 2.0 2.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | based practice for clients across the lifespan. | | | | | |
| NUR295 | 2019 Summer | Registered Nurse Refresher | | Update of current principles of nursing theory and practice for registered nurses. Didactic instruction meets all Arizona State Board of Nursing requirements: nursing process and patient centered care; pharmacology, medication calculation, and medication administration; communication; critical thinking, clinical decision making and evidence-based practice; delegation, management, and leadership; working with interdisciplinary teams; meeting psychological and physiological needs of adult clients with medical-surgical conditions; ethics; documentation including electronic health records; informatics; and quality improvement. Concentrated preceptorship experience under the supervision of a registered nurse with faculty guidance. Individualized teaching and learning opportunities to build confidence, competence and an increased level of independent functioning. | Prerequisites: Permission of Instructor. | | Occ | LEC 10.0 6.0 6.0 LAB 0.0 180.0 12.0 | R |
| NUR296WA | 2002 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of | | | LAB 1.0 5.0 0.0 | Z |



Occ

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor. | | | | |
| NUR296WB | 2002 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor. | | Occ | LAB 2.0 10.0 0.0 | Z |
| NUR296WC | 2002 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor. | | Occ | LAB 3.0 15.0 0.0 | Z |
| NUR296WD | 2002 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to | Prerequisites: Completion of at least twelve (12) college | | | LAB 4.0 20.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE | credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor. | | | | |
| NUR298AA | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment are made available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | Prerequisites: Permission of Program Director or Instructor. | | Occ | LAB 1.0 1.0 0.0 | Z |
| NUR298AB | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment are made available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student | Prerequisites: Permission of Program Director or Instructor. | | Occ | LAB 2.0 2.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | development. COMMON COMPETENCY COURSE | | | | | |
| NUR298AC | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment are made available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | Prerequisites: Permission of Program Director or Instructor. | | Occ | LAB 3.0 3.0 0.0 | Z |
| NUR301 | 2024 Fall | Role of the Professional Nurse | | Introduction to the transition from Registered Nurse to the role and scope of the professional baccalaureate nurse. Review of nursing philosophies, theories, and conceptual models. Focus on concepts and attributes of the baccalaureate nurse. | Prerequisites: Admission into the RN to BSN program; current, unencumbered RN license. | | Occ | LEC 3.0 3.0 3.0 | S |
| NUR302 | 2024 Fall | Health Assessment and Promotion | | Overview of the health assessment process, including methods of taking health history, physical examination skills, documentation, and health promotion strategies. Emphasis on health promotion across the lifespan among diverse populations, health equity, and community resources. | Prerequisites: Admission into the RN to BSN program; current, unencumbered RN license. | | Occ | LEC 4.0 3.0 3.0 LAB 0.0 3.0 3.0 | R |
| NUR303 | 2024 Fall | Nursing Research and Evidence-Based Practice | | Use of evidence-based research findings for improving clinical practice and person-centered care outcomes. Exploration of quantitative and qualitative research methodologies. | Prerequisites: Admission into the RN to BSN program; current, unencumbered RN license. | | Occ | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Emphasis on the critical review of research studies and their applications to clinical practice. | | | | | |
| NUR304 | 2024 Fall | Public and Community Health Nursing | | Exploration of population health as a system of diverse cultures, values, and subgroups with varying socioeconomic circumstances and levels of vulnerability. Emphasis on factors affecting community settings using epidemiological data and functional health pattern assessments to plan, organize, and deliver services in community settings, including health education and promotion, illness prevention, and disaster preparedness. Includes project and simulation-based field experiences. | Prerequisites: Admission into the RN to BSN program; current, unencumbered RN license. | | Occ | LEC 4.0 3.0 3.0 LAB 0.0 3.0 3.0 | R |
| NUR305 | 2024 Fall | Legal and Ethical Topics in Nursing | | Overview of health policy, legislative and regulatory guidelines, the Nurse Practice Act, and legal and ethical concepts that influence the practice of professional nursing. Focus on ethical decision-making models. | Prerequisites: Admission into the RN to BSN program; current, unencumbered RN license. | | Occ | LEC 3.0 3.0 3.0 | S |
| NUR401 | 2024 Fall | Systems-Based Thinking in Nursing | | Overview of systems-based thinking in nursing and its role in improving the quality and safety of patient care. Focus on coordination of healthcare systems components to address complex issues and deliver optimal care. | Prerequisites: Admission into the RN to BSN program; current, unencumbered RN license. | | Occ | LEC 3.0 3.0 3.0 | S |
| NUR402 | 2024 Fall | Healthcare Technology and Informatics | | Exploration of various modalities and integration of healthcare technology and informatics to manage and communicate data, advance health information literacy, and improve patient | Prerequisites: Admission into the RN to BSN program; current, unencumbered RN license. | | Occ | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | outcomes. Focus on components, applications, problem solving, and data management strategies. | | | | | |
| NUR403 | 2024 Fall | Nursing Leadership and Management | | Overview of leadership qualities, abilities, and personal style including strengths and challenges. Focus on understanding the differences between management and leadership. Emphasis on communication and transparency in management and leadership. | Prerequisites: Admission into the RN to BSN program; current, unencumbered RN license. | | Occ | LEC 3.0 3.0 3.0 | S |
| NUR404 | 2024 Fall | Advanced Nursing Capstone | | Capstone project that provides the baccalaureate nursing student with the opportunity to assess, identify, propose, and present an evidence-based project that addresses an issue significant to nursing practice. The project will synthesize knowledge from coursework and experience. The capstone project will be under the guidance and in collaboration with program faculty and a preceptor from the facility or entity. | Prerequisites: Admission into the RN to BSN program; current, unencumbered RN license. | | Occ | LEC 4.0 2.0 2.0 LAB 0.0 6.0 6.0 | T |
| NVH245 | 2008 Spring | Navajo Culture and Heritage | | Survey of the Navajo people, including their history, culture/aesthetics, education, spirituality, and language | Prerequisites: None. | | Acad | LEC 3.0 3.0 3.0 | S |
| OAS101 | 2018 Fall | Computer Typing I: Keyboarding and Formatting | | Keyboard mastery; letters, tables, and reports; office production; and manuscripts | Prerequisites: None. | | Occ | L+L 3.0 5.0 5.0 | T |
| OAS101AA | 2018 Fall | Computer Typing I: Keyboard Mastery | | Incorporates correct touch typing principles | Prerequisites: None. | | Occ | L+L 1.0 1.7 1.7 | T |
| OAS101AB | 2018 Fall | Computer Typing I: Letters, Tables and Reports | | Letter, table, and report formatting | Prerequisites: A grade of C or better in OAS101AA or permission of Department or Division. | | | L+L 1.0 1.7 1.7 | T |
| OAS101AC | 2018 Fall | Computer Typing I: Production and Manuscript | | Simple office projects and manuscripts | Prerequisites: A grade of C or better in OAS101AB or | | | L+L 1.0 1.7 1.7 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | permission of Department or Division. | | | | |
| OAS102 | 2018 Fall | Computer Typing II: Document Production | | Arrangement of letters, memos, manuscripts, and tabulation; speed/accuracy improvement | Prerequisites: A grade of C or better in OAS101 or permission of Department or Division. | | | L+L 3.0 5.0 5.0 | T |
| OAS103AA | 2018 Fall | Computer Typing: Skill Building I | | Individual progression on speed/accuracy drills. | Prerequisites: Ability to touch type at 25 words per minute or permission of Department or Division. | | | L+L 1.0 1.7 1.7 | T |
| OAS107 | 1994 Fall | Professional Telephone Techniques | | Proper telephone techniques and professional business manners | Prerequisites: None. | | Occ | LEC 1.0 1.0 1.0 | S |
| OAS108 | 1998 Summer I | Business English | | Comprehensive coverage of correct use of English grammar including spelling, punctuation, capitalization, and number style mechanics in a business context | Prerequisites: None. | Occ<br><br>Occ | Occ | LEC 3.0 3.0 3.0 | S |
| OAS111AA | 2018 Fall | Computer Keyboarding I | BPC111AA | Mastery of essential microcomputer keyboarding skills. Emphasis on touch typing of alphabetic and numeric keys and symbols | Prerequisites: None. | | Occ | L+L 1.0 1.7 1.7 | T |
| OAS118 | 2018 Fall | 10-Key By Touch | | Touch system of numeric keys on ten-key pads | Prerequisites: None. | | Occ | L+L 1.0 1.7 1.7 | T |
| OAS120 | 1998 Summer I | Financial Record Keeping | | Computerized application of concepts and procedures of office record keeping; includes finance and personnel records, inventory systems, banking procedures and cash control; decision-making process for solving financial problems | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| OAS125 | 1995 Spring | Introduction to the Professional Office | | Expectations of the professional in the electronic office of today. Realistic and practical coverage of roles, responsibilities, and environment | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| OAS181 | 1998 Summer I | Medical Office: Vocabulary | | Basic medical vocabulary with emphasis on pronunciation, spelling, and definition | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| OAS298AA | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | Prerequisites: Permission of Program Director or Instructor. | | Occ | LAB 1.0 1.0 0.0 | Z |
| OPH101 | 2023 Fall | Introduction to Eye Care | | This course will introduce the student to the meaning of ophthalmology and the different members of the ophthalmic eye care team. The student will learn different certification levels and the importance of professional development. Body structure, body function, anatomy and physiology of the eye will be discussed in detail. Proper moving, transferring and safety issues of patients; as well as knowledge about diverse populations, geriatric patients and patients with special needs will be demonstrated and discussed. An introduction to infection control, agency guidelines, and using proper aseptic technique will be discussed and demonstrated. | Prerequisites: Successful completion of RDG100 or higher or appropriate reading placement into CRE101. | | CLK | 54 | |
| OPH102 | 2021 Fall 1 | Introduction to Ophthalmology | | This course will introduce the student to the meaning of ophthalmology and the different members of the ophthalmic eye care team. The student will learn different | Prerequisites: Successful completion of RDG100 or higher or appropriate reading placement into CRE101. | | CLK | 50 | |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | certification levels and the importance of professional development as well as learn medical terminology and how to perform cardiopulmonary resuscitation (CPR) on infants, children, and adults. Students will be introduced to infection control procedures, legal and ethical considerations, and regulatory requirements. Students will learn about the Health Insurance Portability and Accountability Act (HIPAA) and privacy laws, and the importance of confidentiality in written and communication form. | | | | | |
| OPH103 | 2021 Fall 1 | Ophthalmic Scheduling and Billing Practices | | A certified medical administrative assistant (also called a medical office secretary or medical office assistant) keeps an ophthalmic healthcare office running efficiently and effectively. The ophthalmic medical administrative assistant is often the first to greet and help patients, and can help set the stage for a patient?s experience. Students will gain the knowledge and skills relevant for working in the ophthalmic medical office setting such as greeting and checking in patients, collecting personal, medical, and insurance information. Schedule, reschedule, and verify patient appointments. Schedule appointments with secondary care providers and coordinate physician schedules. Ophthalmic medical administrative assistants will | Prerequisites: OPH102 | | CLK | 100 | |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | coordinate and maintain patient flow within the medical office by communicating patient arrivals or delays. This course will prepare students for the Certified Medical Administrative Assistant Examination through the National Healthcareers Association (NHA). | | | | | |
| OPH104 | 2021 Fall 1 | Ocular and Systemic Diseases of the Eye | | This course will introduce students to the signs and symptoms of specific eye diseases, as well as how disease processes affect the visual system. Students will be introduced to how systemic diseases with ocular manifestations occur, impact visual acuity, and are treated. Students will learn how to obtain and record vital signs, set up a vision lane to screen school aged children, prepare and provide guidance to school aged children to prepare them for examinations, utilize specialized eye screening equipment and provide referrals for further care. This course prepares students for the Arizona Department of Health Vision Screener Certification. | Prerequisites: OPH103 or Program Manager approval. | CLK | | 50 | |
| OPH105 | 2021 Fall 1 | Ocular and Refractive Clinical Assessment, Skills, and Procedures | | The Ocular and Refractive Clinical Assessment, Skills, and Procedures course will prepare students to work in the exciting and ever evolving world of ophthalmic medical assisting. This course will help students develop basic skills such as triaging patient complaints and symptoms, taking a good patient history, | Prerequisites: 1. Must show proof of employment at an ophthalmic office. 2. Successful completion of RDG100 or higher or appropriate reading placement into CRE101. | | CLK | 240 | |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | and performing comprehensive examinations on patients with various medical eye conditions. Students will study anatomy and physiology of the eye, pharmacology, and infection control procedures. Additionally, this course will prepare students to use and care for various types of ophthalmic instruments, assist with procedures, and conduct a variety of tests. This course will explain the principles of optics and refractive states of the eye to aid in caring for patients needing contact lenses or reading eyeglasses, and measuring the patient for the proper optical prescription. | | | | | |
| OPH110 | 2020 Fall 1 | Medical Terminology/Abbreviations and Disease Processes for Ophthalmic Medical Assistant | | This course will introduce the student to understanding the signs and symptoms of specific eye diseases, as well as how said disease affects the visual system. Systemic diseases with ocular manifestations will be discussed. The students will discuss and document by writing essays on the causes of specific diseases and the procedures used to diagnose and treat these diseases. The students will begin practicing medical terminology and acceptable abbreviations specific to the field of ophthalmology with an outcome of the ability to spell, define, and use ophthalmic terminology and abbreviations. The student will learn, demonstrate and record vital signs. | Prerequisites: OPH101, or with Program Manager approval, and current health and safety requirements. | | CLK | 42 | |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| OPH112 | 2023 Fall | Clinical Theory and Skills | | This course will explain the principles of optics and refractive states of the eye. Reading eyeglasses and measuring the patient for the proper eyeglass prescription will be demonstrated. The importance of ophthalmic pharmacology will be discussed and students will learn how the medications are used in the ophthalmology practice. Students will learn how to properly write a prescription for eye medications. Demonstration of proper eye drop instillation will be given. The importance of current microorganisms and infection control will be discussed in detail. The students will begin performing comprehensive medical eye examination. Ocular motility and other adjunctive testing in ophthalmology will be demonstrated. | Prerequisites: OPH110 or with Program Manager approval, and current health and safety requirements. | | CLK | 177 | |
| OPH114 | 2023 Fall | Basic Skills and Ocular Assessment | | This course will develop and refine the knowledge and skills necessary to assist the ophthalmologist in completion of the findings, assessment, and plan needed in a comprehensive ophthalmic medical evaluation for each patient. Community eye health and the importance of low vision will be discussed. The student ophthalmic assistant will perform and demonstrate comprehensive examinations and be required to pass skill evaluation testing. | Prerequisites: OPH112 or with Program Manager approval, and current health and safety requirements. | | CLK | 183 | |
| OPH150 | 2021 Fall 1 | Certified Ophthalmic Assistant (COA) Certification Prep | | This is a refresher course that will help prepare students for the Joint Commission on | Prerequisites: Ophthalmic Assistant Certification from the | | | 24 | |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Allied Health Personnel in Ophthalmology (JCAHPO) for Certified Ophthalmic Assistant (COA) Exam. Students will feel more comfortable and more efficient with this exam. | Joint Commission on Allied Health Personnel in Ophthalmology (JCAHPO). | | | | |
| OPH190 | 2021 Fall 1 | Ophthalmic Assisting Externship | | This course will give students hands-on experience with patients, staff, and other ophthalmic professionals while using their skills and techniques they obtain from lecture and lab courses. Students are assigned to an approved partnership site for one hundred and twenty (120) hours of externship. This will prepare the student for employment as an ophthalmic medical assistant. | Prerequisites: 1. OPH114 or with Program Manager approval. 2. Background check requirements in compliance with the Maricopa County Community College District Supplemental Background Check Policy. 2. Students also must provide a copy of an Arizona Department of Public Safety Level One Fingerprint Clearance Card. Students must maintain current fingerprint clearance throughout the externship(s). 3. Complete and submit the Allied Health Student Health and Safety Documentation Checklist, with included documentation 4. Students are responsible to meet the requirements of the background check, fingerprint clearance card, and health and safety documentation. | Externship hours are site specific and may require attendance any day of the week, including during unscheduled days and times. | CLK | 120 | |
| OPT105 | 2023 Fall | Introduction to Precision Optics | | A historical overview of precision optics and scientific development. Covers optics application and the manufacturing process including machinery, tools, | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | and systems. Examines fundamental principles, characteristics and design of optical components including geometrical optics, wave optics, metrology, fiber optics, photonics, aberration theory, optical phenomena, and optical illusions. Professional career paths in the optics industry also explored. | | | | | |
| OPT107 | 2023 Fall | Precision Optics and Mathematical Concepts | | Precision optics and mathematical concepts. Covers basic algebraic operations, problem solving involving metric measurement, gears, pulleys, simple mechanism problems. Areas and volume calculations of geometric figures. Essentials of trigonometry for solving right and oblique triangles. Addresses geometrical optics (reflection, diffraction, imaging, thin lens formula, lens maker's equation), wave optics (interference, diffraction, polarization), and the basic principles and practical applications of lasers. Covers optical handling and positioning, light sources, laser classifications and safety. | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| OPT112 | 2023 Fall | Optical Elements and Ray Optics | | Overview of terminology and techniques in the use of analytical and laboratory methods for planning, executing, and evaluating arrangements using components such as mirrors, prisms, thin and thick lenses, diffusers, stops, reticles, and various types of light sources. Reflection, refraction, dispersion, image formation, | Prerequisites: None. | | Occ | L+L 3.0 4.0 4.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | and aberrations studied, with emphasis on the ray concept of light. | | | | | |
| OPT115 | 2023 Fall | Optical Fabrication and Metrology | | A study of optical materials, processes, and measurement techniques employed in the manufacture of modern optical components. Covers steps in planning, tooling, fabricating, finishing, testing, coating, and assembly of precision optical elements. | Prerequisites: None. | | Occ | L+L 3.0 4.0 4.0 | T |
| OPT215 | 2023 Fall | Advanced Optical Fabrication and Metrology | | Study of advanced processes, tools, and Computerized Numerical Control (CNC) technology shaping the methodology in manufacturing precision optical components. Emphasis in CNC grinding and polishing, tolerancing, and metrology of precision optical lenses. | Prerequisites: A grade of C or better in OPT115. | | Occ | L+L 3.0 4.0 4.0 | T |
| OPT225 | 2023 Fall | Optical Systems | | Application of optical fabrication techniques covering assembly of multiple optical elements into cemented and mechanically mounted lens systems, in addition to training in precision cleaning and inspection of optical surfaces. Also covers advanced metrology skills such as interferometry of transmitted beams and measurement of the optical transfer function. | Prerequisites: None. | | Occ | L+L 3.0 4.0 4.0 | T |
| OSH101 | 2023 Fall | Introduction to Occupational Safety, Health, and Environmental Technology | | Overview of occupational safety, health, and environmental regulations and technology. Overview of the regulatory framework related to safety and environmental program management. Career opportunities and their relationship to business management. | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| OSH102 | 2020 Fall | Introduction to Industrial Hygiene | | Overview of environmental hazardous materials technology. History of pollution leading to current legislation. Environmental effects of pollution. Overview of the regulatory framework. Career opportunities in handling and management of hazardous substances | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| OSH105 | 2000 Summer I | Construction Safety | | Occupational Safety and Health Act. Common causes for accidents and fatalities in construction. Abatement techniques for construction specific hazards. Use of personal protection and lifesaving equipment. Specific types of health hazards related to the construction industry. Proper methods for handling hazardous materials | Prerequisites: None. | | Occ | LEC 2.0 2.0 2.0 | S |
| OSH105AA | 2012 Fall | Construction Safety | | Occupational Safety and Health Act. Common causes for accidents and fatalities in construction. Abatement techniques for construction specific hazards. Use of personal protection and lifesaving equipment. Specific types of health hazards related to the construction industry. Proper methods for handling hazardous materials. | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| OSH106 | 2018 Fall | Industrial Safety | GTC106 MIT106 | Safety, health management, and accident prevention in industrial work environment. Role of Occupational Safety and Health Administration (OSHA) act, materials handling, electrical safety, machine safety, first response to fire and medical emergencies, safety signs and color codes, recognition of safety and health hazards | Prerequisites: None. | | Occ | LEC 2.0 2.0 2.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | accident prevention, management responsibilities, and OSHA 10 certification. | | | | | |
| OSH106AC | 2020 Fall | Industrial Safety | | Safety, health management and accident prevention in industrial work environment. Role of Occupational Safety and Health Administration (OSHA) act, materials handling, electrical safety, machine safety, emergency preparedness, safety signs and color codes, recognition of safety and health hazards accident prevention, and management's responsibilities. | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| OSH107 | 2020 Fall | Occupational Safety Principles and Practice | | Application of safety and health regulations and best practices. Hazard identification and accident investigation techniques. Major construction hazards and controls. Application of fire protection standards. | Prerequisites: A grade of C or better in OSH106AC or permission of Instructor. | | Occ | LEC 3.0 3.0 3.0 | S |
| OSH189 | 2016 Fall | Professional Leadership Development for Occupational Safety and Health | | Personal and professional leadership development related to Occupational Health and Safety (OSH) through active participation in peer-to-peer and professional mentoring. Exposure to industry technical meetings, technical tours, seminars, college discipline specific campus club, scholarship awareness, career fairs, and other similar events. Supplemented by readings, and pre-and post-activity discussion and critique. Varied content due to variety of personal and professional development available. | Prerequisites: A grade of C or better in HMT/OSH101 and GTC/MIT/OSH106 and a student member of the American Society of Safety Engineers. | OSH189 may be repeated for a total of three (3) credit hours. | Occ | LEC 1.0 1.0 1.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| OSH189AA | 2020 Fall | Professional Leadership Development for Occupational Safety and Health I | | Personal and professional leadership development related to Occupational Safety and Health (OSH) through active participation in professional mentoring. Exposure to industry technical meetings, technical tours, college discipline specific campus club, scholarship awareness, and other similar events. Supplemented by readings, and pre- and post-activity discussion and critique. Varied content due to variety of personal and professional development available. | Prerequisites: A grade of C or better in OSH106AC. | | Occ | L+L 1.0 2.0 0.0 | C |
| OSH203 | 2020 Fall | Health and Safety Program Management | | Introduction to safety program theory and principles needed to develop, manage, implement and evaluate a safety and health program. Systems safety and applied psychology theories that enhance safety program management. Hazard identification methods and controls, and application of these principles to case studies. | Prerequisites: A grade of C or better in OSH106AC or permission of Instructor. | | Occ | LEC 3.0 3.0 3.0 | S |
| OSH204 | 2017 Fall | Health and Safety Program Management II | | Current and emerging topics in safety and health program management. Exploration of current topics through emerging regulatory and/or consensus standards organizations. Case study investigation and analysis with applications to safety and health management. Introduction to new and evolving online training courses, seminars, video and documents. Adult leaning and instructional theory. | Prerequisites: A grade of C or better in OSH107 and OSH203, or permission of Instructor. | | Occ | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| OSH206 | 2005 Spring | Risk Management and Loss Control | | Statistical and cost analysis, report writing, and injury prevention related to loss control. Prevention programs designed to minimize or eliminate property and personnel loss or injury | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| OSH211 | 2020 Fall | Industrial Safety Management Systems and Performance Indicators | | Establishment of a safety management system meeting safety management system standards, concentrating on reactive and proactive approaches for safety department functions. Specific content includes development of safety duties, establishment of performance metrics, investigational accuracy and self-assessment. | Prerequisites: A grade of C or better in OSH203. | | | LEC 3.0 3.0 3.0 | S |
| OSH218 | 2020 Fall | Ergonomics | | Analysis and evaluation of ergonomics risk factors for occupational tasks. Application of theories, methods, and techniques used in work design and systems. Methodological problems in human information processing, human control functions, human-machine interface, work design and process evaluation. | Prerequisites: A grade of C or better in OSH107 or permission of Instructor. | Occ | Occ | LEC 3.0 3.0 3.0 | S |
| OSH220 | 2020 Fall | Safety and Emergency Management | | Assessment of emergency management systems for occupational safety program development. Planning and implementation of the four phases of emergency management: mitigation, preparedness, response, and recovery. Analysis of all hazards preparedness and response in emergency situations resulting from natural and technological hazards. Planning and | Prerequisites: A grade of C or better in OSH105AA or OSH106AC. | | Occ | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | budgeting for resources and staffing. | | | | | |
| OSH240 | 2020 Fall | Fire Protection Systems | FAC240 | Building occupant safety requirements including industry standards, regulations, building codes, fire codes and life safety codes. Fundamentals of fire protection system operation, inspection and maintenance. Principles of life safety systems including fire door and walls, smoke control systems, and exit components. | Prerequisites: A grade of C or better in OSH106AC. | | Occ | LEC 3.0 3.0 3.0 | S |
| OSH270AA | 2020 Fall | Occupational Safety and Health Internship | | Occupational Safety and Health (OSH) work experience in business, industry or government. Eighty (80) hours of designated work experience. | Prerequisites: A grade of C or better in HMT/OSH101 and OSH106AC or permission of Instructor. | OSH270AA may not be repeated for credit. | Occ | LAB 1.0 6.0 0.0 | C |
| OSH270AB | 2020 Fall | Occupational Safety and Health Internship | | Occupational Safety and Health (OSH) work experience in business, industry or government. One hundred and sixty (160) hours of designated work experience. | Prerequisites: A grade of C or better in HMT/OSH101 and OSH106AC. | OSH270AB may not be repeated for credit. | Occ | LAB 2.0 12.0 0.0 | C |
| OSH270AC | 2020 Fall | Occupational Safety and Health Internship | | Occupational Safety and Health (OSH) work experience in business, industry or government. Two hundred and forty (240) hours of designated work experience. | Prerequisites: A grade of C or better in HMT/OSH101 and OSH106AC. | OSH270AC may not be repeated for credit. | Occ | LAB 3.0 18.0 0.0 | C |
| OSH290AC | 2018 Fall | Case Study and Research Project | | Completion of a selected safety project in policy and procedure development or training program curriculum design in actual or simulated work setting. Combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students | Prerequisites: Permission of Instructor. | | Occ | LAB 3.0 3.0 3.0 | T |
| OSH298AA | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured | Prerequisites: Permission of Program Director or Instructor. | | Occ | LAB 1.0 1.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | | | | | |
| OSH298AB | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | Prerequisites: Permission of Program Director or Instructor. | | Occ | LAB 2.0 2.0 0.0 | Z |
| OSH298AC | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | Prerequisites: Permission of Program Director or Instructor. | | Occ | LAB 3.0 3.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| OTA100 | 2019 Fall | Introduction to Occupational Therapy Assistant Profession | | History, theory and philosophy of occupational therapy and occupational therapy assistant (OTA) professions. Topics include practice contexts, ethics, and scope of practice. Emphasis on developing professional behavior skills expected of an entry-level occupational therapy assistant. | Prerequisites: None. | | Occ | LEC 2.0 2.0 2.0 | S |
| OTA102 | 2019 Fall | Psychosocial Health and Occupation | | Analysis of impact of psychosocial health on occupation throughout the lifespan. Focus on occupational therapy (OT) assessments and screening procedures for process skills, social interaction skills, and performance patterns. Theoretical models for group occupational therapy assistant (OTA) interventions and development of therapeutic client relationships. | Prerequisites: Admission to the Occupational Therapy Assistant program, and a grade of C or better in (OTA100 and PSY101). Corequisites: PSY266. | Occ | | LEC 3.0 3.0 3.0 | S |
| OTA105 | 2019 Fall | Fieldwork: Psychosocial | | Introductory-level clinical fieldwork experience for the occupational therapy assistant (OTA). Emphasis on observational skills and basic interactional skill in a mental health clinical setting with a culturally diverse client population. Focus on developing professional behavior, professional communication, and clinical reasoning in psychosocial context. Opportunities to apply group theory and therapeutic use of self. | Prerequisites: Admission to Occupational Therapy Assistant program. Corequisites: OTA102. | | Occ | LAB 0.5 3.0 0.0 | C |
| OTA107 | 2019 Fall | Fundamentals of Occupational Therapy | | Discussion of Occupational Therapy Practice Framework (OTPF), analysis of occupational performance and analysis of activities. Role of | Prerequisites: Admission to the Occupational Therapy Assistant program and | | | LEC 3.0 2.0 2.0 LAB 0.0 3.0 3.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | occupational therapy assistant (OTA) from referral to discharge. OTA interventions, documentation requirements, and terminology. Emphasis placed on therapeutic use of self and development of clinical reasoning skills. | a grade of C or better in OTA100. | | | | |
| OTA117 | 2019 Fall | Physical Health and Occupations | | Impact of physical health on occupation throughout the lifespan. Focus on observing, identifying, measuring, and assessing motor and sensory client factors. | Prerequisites: Admission to the Occupational Therapy Assistant program and a grade of C or better in BIO202. | | Occ | LEC 3.0 1.0 1.0 LAB 0.0 6.0 6.0 | T |
| OTA157 | 2019 Fall | Occupational Therapy Assistant in Physical Rehabilitation | | Theories and practice models for occupational therapy for clients with physical disabilities. Topics include pathology and therapeutic interventions. Emphasis on clinical reasoning, locating resources, daily treatment planning, task and environmental modifications, activity grading, client education and documentation. | Prerequisites: Admission to the Occupational Therapy Assistant program. | | Occ | LEC 3.0 1.0 1.0 LAB 0.0 6.0 6.0 | T |
| OTA201 | 2019 Fall | Assistive Technology | | Specialized assistive technology items: car modifications, power wheel chair options, adaptive toys and switches, seating systems, orthotics and prosthetics, and apps for therapeutic use. Emphasis on identifying need, referral process, and funding sources. | Prerequisites: A grade of C or better in OTA157. | | Occ | LEC 2.0 2.0 2.0 | S |
| OTA205 | 2019 Fall | Fieldwork: Geriatric | | Introductory level clinical fieldwork experience with a geriatric population. Application of learning with focus on exhibiting professional behavior, professional communication, clinical observation skills, and implementation of selected | Prerequisites: Admission to the Occupational Therapy Assistant program and a grade of C or better in OTA157. Corequisites: OTA207. | | Occ | LAB 0.5 2.5 0.0 | C |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | geriatric treatment strategies and modifications. | | | | | |
| OTA207 | 2019 Fall | Occupational Therapy Assistant in Geriatrics | | Impact of aging on occupational performance. Physical, sensory, and cognitive changes associated with aging. Social, psychological, and cultural impact on aging. Common and emerging contexts of service provision. Focus on synthesizing learning and implementing treatment techniques with aging population. | Prerequisites: A grade of C or better in OTA157. | | | LEC 3.0 2.0 2.0 LAB 0.0 3.0 3.0 | T |
| OTA215 | 2019 Fall | Fieldwork: Pediatric I | | Introductory-level fieldwork experience in a pediatric context. Emphasis on demonstrating professional behavior, professional communication, clinical observation skills, selecting age-appropriate therapeutic activities, and applying therapeutic use of self with a culturally diverse pediatric client population. | Prerequisites: Admission to the Occupational Therapy Assistant program and a grade of C or better in OTA157. Corequisites: OTA217. | Occ | Occ | LAB 0.5 2.5 0.0 | C |
| OTA216 | 2023 Fall | Occupational Therapy Assisting Pediatrics I | | Distinguishes between typical and atypical pediatric development. Common pediatric health conditions of infants, children, and adolescents. Occupational therapy practice models, theories, and delivery contexts found in pediatrics. | Prerequisites: Admission to the Occupational Therapy Assistant program and a grade of C or better in OTA102 and OTA117. | | Occ | LEC 2.0 2.0 2.0 | S |
| OTA217 | 2023 Fall | Occupational Therapy Assisting Pediatrics II | | Distinguishes between typical and atypical pediatric development. Common pediatric health conditions of infants, children, and adolescents. Occupational therapy practice models, theories, and delivery contexts found in pediatrics. Focus on synthesizing prior learning and | Prerequisites: Admission to the Occupational Therapy Assistant program and a grade of C or better in OTA102, OTA117, and OTA216. | | | LEC 3.0 2.0 2.0 LAB 0.0 3.0 3.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | specific pediatric treatment activities to develop pediatric treatment plans. | | | | | |
| OTA234 | 2019 Fall | Occupational Therapy Assistant Professional Standards | | Preparation for transition into level 2 fieldwork. Focus on supervisory structures, professional ethics, legislative issues, licensure requirements, evidence based practice, and reimbursement systems. Topics include program planning, marketing, quality assurance. Assessment of personal and professional competencies during resume and portfolio development. | Prerequisites: A grade of C or better in OTA157. | | Occ | LEC 2.0 2.0 2.0 | S |
| OTA255 | 2019 Fall | Fieldwork: Adult | | Clinical experience under the direct supervision of experienced occupational therapists (OTs) or occupational therapy assistants (OTAs) in a context primarily serving adult clients. Emphasis is placed on clinical preparation for entry-level practice as an OTA. | Prerequisites: Admission to the Occupational Therapy Assistant program and a grade of C or better in (OTA207, OTA217, and OTA234). Corequisites: OTA284. | Students should have completed all other OTA coursework within the last 18 months. | Occ | LAB 4.0 21.0 0.0 | C |
| OTA265 | 2019 Fall | Fieldwork: Pediatric II | | Secondary clinical experience under the direct supervision of experienced occupational therapists (OTs) or occupational therapy assistants (OTAs) in a context primarily serving pediatric clients. Emphasis is placed on clinical preparation for entry-level practice as an OTA. | Prerequisites: Admission to the Occupational Therapy Assistant program and a grade of C or better in (OTA207, OTA217, and OTA234). | Students should have completed all other OTA coursework within the last 18 months. | Occ | LAB 4.0 21.0 0.0 | C |
| OTA284 | 2019 Fall | Occupational Therapy Assistant Professional Transition | | Integration of clinical experiences during level 2 fieldwork with theoretical models and didactic learning. Preparation for licensure and National Board for Certification in Occupational Therapy (NBCOT) examination. Focus on self- | Prerequisites: Admission to the Occupational Therapy Assistant program and a grade of C or better in (OTA207, OTA217, and OTA234). | Students should have completed all other OTA coursework within the last 18 months. | Occ | LEC 2.0 2.0 2.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | assessment, study skills, comprehensive content review, and fieldwork review. | | | | | |
| PAD100 | 2013 Spring | 21st Century Public Policy and Service | | Introduction to topics pertaining to public policy and public service in the 21st century. Includes formation, implementation, and evaluation procedures for public policy, as well as roles and agendas of policy makers and public administrators. Also covers careers in public service/administration and an evaluation of essential skills necessary for a career in public service. | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| PAD107 | 2019 Summer | Public Finance Administration | | Basic overview of public finance system for state and local government. Includes budgeting processes, revenue and funding sources involving taxes and revenue forecasting. Also covers capital planning, debt management, performance measurement, financial statements, and auditing. | Prerequisites: A grade of C or better in CIS114DE. | | | LEC 3.0 3.0 3.0 | S |
| PAD122 | 2019 Summer | Public Sector Human Resources Management | | Overview of human resources management in the public sector. Covers planning, staffing, training, compensating, and appraising employees in labor management relationships. | Prerequisites: A grade of C or better in CIS114DE. | Occ | | LEC 3.0 3.0 3.0 | S |
| PAD170 | 1999 Spring | Public Sector Organizational Behavior | | Basic principles of public-sector management from an organizational behavior perspective. Levels of organizational behavior: the individual, the group and the organization system emphasized | Prerequisites: None. | Occ | Occ | LEC 3.0 3.0 3.0 | S |
| PAD200 | 2013 Spring | Public Affairs Economics | | Introduction to the use of macroeconomic and microeconomic principles | Prerequisites: A grade of C or better in | Course Attribute(s): General Education Designation: Social and Behavioral Sciences - [SB] | Occ | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | concerning public affairs and social issues. Includes the role of economics in societal development and public policies in addition to the effects of unemployment and inflation. Also covers measurement of, causes for and societal responses to poverty. | PAD100 or permission of Instructor. | | | | |
| PAD210 | 2018 Fall | Fundamentals of Real Property Appraisal | | Procedures and techniques for estimating market value of vacant and improved properties. Includes appraisal theory, assessment procedures, and appraisal/assessment techniques in addition to land description and land valuation. Also covers definitions and structure of cost and various types of cost estimates as well as procedures for determining depreciation | Prerequisites: Permission of Department or Division. | Occ | | L+L 2.0 3.0 3.0 | T |
| PAD212 | 2019 Spring | Valuation Concepts and Cost Appraisal Methods | | Functions of the assessor and appraiser. Covers the nature and principles of value, assessment, as well as appraisal processes. Emphasis on property owner rights and limitations including an overview of the Arizona Property Tax System. Also covers use of a construction cost system. | Prerequisites: Permission of Department or Division. | | | L+L 2.0 3.0 3.0 | T |
| PAD214 | 2019 Spring | Land Valuation | | Analysis of land valuation procedures. Covers maps, land value factors, and ownership as well as systems of land identification. Includes site data units of comparison and market influences in addition to Arizona statutes and precedents related to special land valuation. | Prerequisites: Permission of Department or Division. | Occ | | L+L 2.0 3.0 3.0 | T |



Occ

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| PAD216 | 2019 Spring | Basic Ad Valorem Appraisal Concepts | | Basic assessment and valuation practices for mixed-use properties, partially complete structures, and salvage properties. Also covers the construction cost system, cost components, and market adjustments as well as methods for measuring depreciation. Also includes market value and ratio studies. | Prerequisites: Permission of Department or Division. | | | L+L 2.0 3.0 3.0 | T |
| PAD218 | 2019 Spring | Personal Property Valuation | | Overview of personal property valuation in the state of Arizona. Includes procedures and forms for the valuation process, as well as mobile home classification and affixture requirement. Also covers year/life tables and depreciation calculations. | Prerequisites: Permission of Department or Division. | Occ | | LEC 1.0 1.0 1.0 | S |
| PAD220 | 2018 Fall | Income Approach to Valuation | | Principles for the income approach to valuation. Includes an overview of real estate investment and finance as well as development of net operating income estimates. Also covers contemporary and historical capitalization methods and procedures for developing capitalization rates | Prerequisites: Permission of Department or Division. | Occ | | L+L 2.0 3.0 3.0 | T |
| PAD222 | 2019 Spring | Intermediate Ad Valorem Appraisal Concepts | | Procedures for Ad Valorem Appraisal. Covers sales ratio studies, appraisal level, and uniformity as well as mixed-use assessment ratios. Also includes Centrally Valued Properties, Direct Sales Comparison, and Income Value calculations. | Prerequisites: Permission of Department or Division. | Occ | | L+L 2.0 3.0 3.0 | T |
| PAD224 | 2019 Spring | Hearing Procedures | | Preparation for hearing procedures. Emphasis on presentation techniques, documentation, and organization of Assessor's records as well as property | Prerequisites: Permission of Department or Division. | Occ | | L+L 2.0 3.0 3.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | classification and confirmation. Also covers analysis of and response to appellant arguments and completion of the administrative appeal process. | | | | | |
| PAR101 | 2020 Fall | Introduction to the Paralegal Profession | | Comprehensive introduction into the legal profession with a focus on the paralegal's role. Introduction into legal terminology, basic legal principles, and the parties involved in the legal system. | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| PAR102 | 2021 Fall | Paralegal Research, Analysis, and Writing I | | Introduction into legal research, analysis and writing. Covers legal research binding, persuasive authority, and use of legal citation. Includes components and use of case law and briefs in addition to use of secondary sources and digests. Also covers electronic legal research and research plans. | Prerequisites: A grade of C or better in (ENG101 or ENG107) and (BPC110 or CIS105) and (CRE101 or equivalent as indicated by assessment). | | Occ | LEC 3.0 3.0 3.0 | S |
| PAR103 | 2020 Fall | Paralegal Research, Analysis, and Writing II | | Advanced legal writing and research. Analysis and application of the writing process to produce well-written documents commonly used in the practice of law. Covers various types of legal writing, including memorandum of law, persuasive writing, and legal correspondence. The use of proper grammar, punctuation, and spelling in the construction of sentences and the development of paragraphs. | Prerequisites: A grade of C or better in PAR102. | | Occ | LEC 3.0 3.0 3.0 | S |
| PAR104 | 2022 Fall | Ethics for the Paralegal | | Paralegal rules of professional responsibility and ethical requirements. Includes regulation of the profession as well as unauthorized practice of law and confidentiality. Also | Prerequisites: A grade of C or better in (ENG101 or ENG107) and (BPC110 or CIS105) and (CRE101 or equivalent as | | | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | covers conflict of interest, competence, and negligence. | indicated by assessment) and PAR102. | | | | |
| PAR106 | 2020 Fall | Legal Foundations for Paralegals | | Legal principles of tort, contract, and criminal law. Includes roles and responsibilities of court systems, the legal community, and the paralegal. Also covers procedures for preparing cases for trial, adjudication, and post-trial. | Prerequisites: A grade of C or better in (ENG101 or ENG107) and (BPC110 or CIS105) and (CRE101 or equivalent as indicated by assessment) and PAR103. | | Occ | LEC 3.0 3.0 3.0 | S |
| PAR112 | 2020 Fall | Civil Litigation I | | Responsibilities of the paralegal in the civil litigation process. Includes review of the American court system and techniques for case investigation. Also covers case management and evidence procedures as well as settlements and pleadings. | Prerequisites: A grade of C or better in (ENG101 or ENG107) and (BPC110 or CIS105) and (CRE101 or equivalent as indicated by assessment). | | Occ | LEC 3.0 3.0 3.0 | S |
| PAR114 | 2020 Fall | Civil Litigation II | | Civil litigation responsibilities of the paralegal in the areas of discovery, depositions, pretrial, and post-trial procedures. Includes preparation of clients, witnesses, and exhibits for the courtroom. Also covers responsibilities of the paralegal in the evidentiary phase of trial, post-trial, and the appeals process in addition to collection and enforcement of judgments. | Prerequisites: A grade of C or better in PAR112. | | Occ | LEC 3.0 3.0 3.0 | S |
| PAR206 | 2010 Spring | Paralegal Business Law | | Overview of business law for the paralegal. Includes a review of basic contract formation and enforcement. Also covers property and ownership characteristics and operations in addition to a comparison of various types of business organizations. | Prerequisites: A grade of C or better in PAR106 and PAR114. | | Occ | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| PAR208 | 2010 Spring | Introduction to Tort Law | | Introduction to tort law and the responsibilities of the paralegal. Includes elements of types of various types of torts, negligence and defenses in addition to classification of and legal issues pertaining to damages. Also covers insurance and its application to tort law as well as procedures for records evaluation and calculation of net settlements. | Prerequisites: A grade of C or better in PAR106 and PAR114. | | Occ | LEC 3.0 3.0 3.0 | S |
| PAR224 | 2019 Spring | Law Office Technology for the Paralegal | | Technology resources and procedures for the law office. Includes types of hardware and software in addition to office security. Also covers paperless office and electronic research procedures as well as use of trial presentation software. | Prerequisites: A grade of C or better in PAR104 or Corequisites: PAR104. | | Occ | LEC 3.0 3.0 3.0 | S |
| PAR230 | 2009 Fall | Family Law for the Paralegal | | Paralegal responsibilities in the area of family law. Includes procedures for the initial client interview as well as drafting of applicable documents in dissolution, post-decree, and custody proceedings. Also covers discovery tools and procedures in addition to methods for valuation and division of assets | Prerequisites: A grade of C or better in PAR114. | | Occ | LEC 3.0 3.0 3.0 | S |
| PAR232 | 2009 Fall | Bankruptcy Law for the Paralegal | | Paralegal responsibilities in the area of bankruptcy law. Emphasis on chapters 7, 11, and 13 of the bankruptcy code of Title 11 of the United States Code. Also covers bankruptcy documentation, automatic stay, dischargeable and nondischargeable debts, and bankruptcy case dismissals, conversions, and transfers | Prerequisites: A grade of C or better in PAR114. | | Occ | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| PAR233 | 2009 Fall | Real Estate Law for the Paralegal | | Paralegal responsibilities in the area of real estate law. Covers real estate transactions and agreements of sale as well as title and deed procedures. Also includes procedures for completing title abstractions and legal documentation pertinent to arbitration and foreclosure. The role of the paralegal in completing real estate client interviews also covered | Prerequisites: A grade of C or better in PAR114. | | Occ | LEC 3.0 3.0 3.0 | S |
| PAR234 | 2023 Summer | Administrative Law for the Paralegal | | Paralegal responsibilities in the area of administrative law. Overview of types and sources of administrative law. Includes accountability, agency discretion and due process in addition to delegation and rule-making. Also covers agency investigations and adjudication procedures. | Prerequisites: A grade of C or better in PAR114. | | Occ | LEC 3.0 3.0 3.0 | S |
| PAR236 | 2009 Fall | Estate Law for the Paralegal | | Paralegal responsibilities in the area of estate law. Includes estate planning and administration. Covers procedures for preparing wills and trusts in addition to handling probate issues | Prerequisites: A grade of C or better in PAR114. | | Occ | LEC 3.0 3.0 3.0 | S |
| PAR237 | 2015 Fall | Paralegals and Environmental Law | | Overview of role and key responsibilities of a paralegal supporting environmental law concerns. Covers the essentials of environmental law, including types of organizations and agencies. Also covered, process of environmental laws and rulemaking with an emphasis on major environmental acts. | Prerequisites: A grade of C or better in PAR106 or permission of Department or Division. | | | LEC 3.0 3.0 3.0 | S |
| PAR238 | 2015 Fall | Paralegals and Immigration Law | | Overview of role and key responsibilities of a paralegal working with immigration law | Prerequisites: A grade of C or better in PAR106 or permission | Occ | | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | cases. Includes immigration laws and essentials of federal regulations. Covers process and procedures for citizenship and naturalization including, establishing temporary and permanent legal citizenship and types of visas. Also includes process for application and appeals. | of Department or Division. | | | | |
| PAR239 | 2015 Fall | Legal Investigation | | Overview of role and key responsibilities of a legal investigator. Covers the process for conducting an interview including discovery methods and research techniques. Also covers procedures for documenting and writing accurate statements and preparing legal evidence and exhibits for trial. | Prerequisites: A grade of C or better in PAR106 or permission of Department or Division. | | | LEC 3.0 3.0 3.0 | S |
| PAR240 | 2023 Summer | Introduction to eDiscovery for the Paralegal | | Overview of electronic discovery and the impact of electronic data on the legal field. Includes a review of the development of technology assisted review (TAR), preservation procedures, and collection methods for electronical stored information (ESI). Also covers changes in civil rules of procedure and ethical duties for legal professionals. | Prerequisites: A grade of C or better in PAR106. | Occ | Occ | LEC 3.0 3.0 3.0 | S |
| PAR260 | 2020 Fall | Legal Career Preparation | | Overview of the essential skills necessary for the paralegal student in the internship environment. Covers essential skills, self-evaluation and resources available to the paralegal. | Prerequisites: A grade of C or better in PAR114. | | Occ | LEC 1.0 1.0 1.0 | S |
| PAR290AA | 2018 Fall | Internship for the Paralegal | | Paralegal work experience in industry. Eighty (80) hours of designated work per credit | Prerequisites: Permission of Department or Division. | PAR290AA may be repeated for a total of three (3) credit hours. | Occ | L+L 1.0 1.0 1.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| PAR290AB | 2018 Fall | Internship for the Paralegal | | Paralegal work experience in industry. Eighty (80) hours of designated work per credit. | Prerequisites: Permission of Department or Division. Corequisites: PAR260. | PAR290AB may be repeated for a total of four (4) credit hours. | Occ | L+L 2.0 2.0 2.0 | T |
| PED101 | 2018 Fall | Physical Activities: Basic | | Individual, dual, or team sports activities at the basic level. | Prerequisites: None. | PED101 may be repeated for credit. | Occ | L+L 1.0 2.0 2.0 | T |
| PED101AD | 2018 Fall | Aerobic Dance | | A cardiovascular workout through dance. | Prerequisites: None. | PED101AD may be repeated for credit. | Occ | L+L 1.0 2.0 2.0 | T |
| PED101AK | 2018 Fall | Aikido | | Covers the fundamentals of Aikido including rules, moves, and traditional discipline of the sport. | Prerequisites: None. | PED101AK may be repeated for credit. | Occ | L+L 1.0 2.0 2.0 | T |
| PED101AP | 2018 Fall | Adapted PE | | Fitness for persons with disabilities. | Prerequisites: None. | PED101AP may be repeated for credit. May need medical clearance. May need medical clearance. | Occ | L+L 1.0 2.0 2.0 | T |
| PED101AQ | 2019 Fall | Aquatic Fitness | | This aquatic fitness class offers knowledge and skills to keep fit for life. It teaches safe performance of movement and exercise in a progressive approach and offers an opportunity to improve and/or maintain a high level of fitness through application of aerobic training principles in an aquatic environment. Swimming skills are not required. This class is designed for all fitness levels. Students are encouraged to understand their own limitations and work within their bounds. | Prerequisites: None. | PED101AQ may be repeated for credit. | Occ | L+L 1.0 2.0 2.0 | T |
| PED101BA | 2018 Fall | Baseball | | Basic skills and game strategy of baseball. Class emphasis on competition and drills. | Prerequisites: None. | PED101BA may be repeated for credit. | Occ | L+L 1.0 2.0 2.0 | T |
| PED101BB | 2018 Fall | Basketball | | Basic skills and game strategy of basketball. Class emphasis on competition and drills. | Prerequisites: None. | PED101BB may be repeated for credit. | Occ | L+L 1.0 2.0 2.0 | T |
| PED101BC | 2018 Fall | Boot Camp | | Vigorous physical and mental conditioning incorporating cardiovascular, core fitness, strength training, and flexibility. Emphasis will be | Prerequisites: None. | PED101BC may be repeated for credit. | Occ | L+L 1.0 2.0 2.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | placed on proper body mechanics and safety. | | | | | |
| PED101BD | 2018 Fall | Ballroom Dancing | | Basic level instruction on ballroom dancing footwork, timing, techniques, and style. Partners rotate. | Prerequisites: None. | PED101BD may be repeated for credit. | Occ | L+L 1.0 2.0 2.0 | T |
| PED101BE | 2018 Fall | Belly Dance | | Practice and demonstration of basic belly dance skills and movements. Basic posture and muscularity, primary upper and lower body isolations, footwork, simple combination movements. Rhythms broken down, and at least one prop demonstrated. Basic routine, improvisation, and current styles and trends in belly dance. Belly dance etiquette and attire. | Prerequisites: None. | PED101BE may be repeated for credit. | Occ | L+L 1.0 2.0 2.0 | T |
| PED101BL | 2018 Fall | Ballet | | Basics of ballet incorporating steps, poses, and graceful movements including leaps and spins. | Prerequisites: None. | PED101BL may be repeated for credit. | Occ | L+L 1.0 2.0 2.0 | T |
| PED101BP | 2018 Fall | Backpacking | | Covers basic skills and techniques of backpacking and the application of these to wilderness travel. | Prerequisites: None. | PED101BP may be repeated for credit. | Occ | L+L 1.0 2.0 2.0 | T |
| PED101BS | 2018 Fall | Body Sculpting | | Stretch and strengthen. Emphasizes increasing fitness, muscle tone, and body flexibility. Great for reducing stress. | Prerequisites: None. | PED101BS may be repeated for credit. | Occ | L+L 1.0 2.0 2.0 | T |
| PED101BW | 2018 Fall | Bowling | | Fundamental skills of bowling, including scoring and competition. | Prerequisites: None. | PED101BW may be repeated for credit. | Occ | L+L 1.0 2.0 2.0 | T |
| PED101CD | 2018 Fall | Country Dance | | Popular country dances including Arizona Two Step, Progressive Two Step and other current popular dances. Partners rotate. | Prerequisites: None. | PED101CD may be repeated for credit. | Occ | L+L 1.0 2.0 2.0 | T |
| PED101CP | 2018 Fall | Camping | | Learn the skills of camping in an outdoor setting. Length of overnight stay varies. | Prerequisites: None. | PED101CP may be repeated for credit. | Occ | L+L 1.0 2.0 2.0 | T |
| PED101CY | 2018 Fall | Cycling - Indoor | | Basic skills for bike set up and proper body mechanics. | Prerequisites: None. | PED101CY may be repeated for credit. | Occ | L+L 1.0 2.0 2.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Increase leg strength, lung capacity, and metabolism. | | | | | |
| PED101DF | 2018 Fall | Self Defense | | Basic self-defense skills, ground-fighting skills, and stand-up fighting capabilities. Modified for all skill levels. Practice is based on real-life experiences and endurance enhanced drills. Develops self confidence. | Prerequisites: None. | PED101DF may be repeated for credit. | Occ | L+L 1.0 2.0 2.0 | T |
| PED101DS | 2018 Fall | Dance Sampler | | Variety of the most basic and popular social dances including Merengue, Waltz, Salsa, Swing, Foxtrot and others. Partners rotate. | Prerequisites: None. | PED101DS may be repeated for credit. | Occ | L+L 1.0 2.0 2.0 | T |
| PED101FB | 2018 Fall | Football | | Basic skills and game strategy of football. Class emphasis on competition and drills. | Prerequisites: None. | PED101FB may be repeated for credit. | Occ | L+L 1.0 2.0 2.0 | T |
| PED101FE | 2018 Fall | Fencing | | Introduction to the sport of fencing. Instruction and practice in proper body mechanics with the use of a foil, saber, and epee. | Prerequisites: None. | PED101FE may be repeated for credit. | Occ | L+L 1.0 2.0 2.0 | T |
| PED101FL | 2018 Fall | Fitness for Life | | Learn the basics of designing and implementing a personalized fitness program to meet your needs in the areas of Cardiovascular Fitness, Weight Control, Muscular Strength and Flexibility. | Prerequisites: None. | PED101FL may be repeated for credit. COMMON COMPETENCY COURSE | Occ | L+L 1.0 2.0 2.0 | T |
| PED101FW | 2018 Fall | Fitness Walking | | Development of safe and effective walking skills through proper exercises and use of equipment to enhance a walking program. | Prerequisites: None. | PED101FW may be repeated for credit. | Occ | L+L 1.0 2.0 2.0 | T |
| PED101GF | 2018 Fall | Group Fitness/Aerobics | | Group exercise incorporating a variety of equipment to increase respiration, heart rates, strength, and flexibility. | Prerequisites: None. | PED101GF may be repeated for credit. | Occ | L+L 1.0 2.0 2.0 | T |
| PED101GO | 2018 Fall | Golf | | Instruction and practice for all skill levels, beginning through advanced. Assistance on shot making, club selection and etiquette on the course. | Prerequisites: None. | PED101GO may be repeated for credit. COMMON COMPETENCY COURSE | Occ | L+L 1.0 2.0 2.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| PED101HH | 2018 Fall | Hip Hop | | Basic skills of hip hop with instruction, practice, and performance including proper body mechanics, choreography, and behavioral competencies. | Prerequisites: None. | PED101HH may be repeated for credit. COMMON COMPETENCY COURSE | Occ | L+L 1.0 2.0 2.0 | T |
| PED101HK | 2018 Fall | Hiking | | Develop safe and effective hiking skills. Essentials and requirements for safe hiking; proper hiking clothing and attire; impact of hiking on the environment. | Prerequisites: None. | PED101HK may be repeated for credit. COMMON COMPETENCY COURSE | Occ | L+L 1.0 2.0 2.0 | T |
| PED101JR | 2018 Fall | Jogging/Running | | Introduction to jogging/running. Learn proper technique to decrease injury and increase training distance. All skill levels welcome. | Prerequisites: None. | PED101JR may be repeated for credit. COMMON COMPETENCY COURSE | Occ | L+L 1.0 2.0 2.0 | T |
| PED101JS | 2018 Fall | Japanese Swordmanship | | Vigorous martial arts swordmanship training program utilizing historical principles that promotes the development of fitness, coordination, agility, balance, mindfulness/focus, and knowledge of strategy. | Prerequisites: None. | PED101JS may be repeated for credit. | Occ | L+L 1.0 2.0 2.0 | T |
| PED101JU | 2018 Fall | Judo | | Japanese martial art in which opponents use balance and body weight to throw, pin and lock. | Prerequisites: None. | PED101JU may be repeated for credit. COMMON COMPETENCY COURSE | Occ | L+L 1.0 2.0 2.0 | T |
| PED101JZ | 2018 Fall | Jazz | | Learn various dance skills characterized by the use of improvisation and influenced by rhythms and techniques of Jazz music. | Prerequisites: None. | PED101JZ may be repeated for credit. COMMON COMPETENCY COURSE | Occ | L+L 1.0 2.0 2.0 | T |
| PED101KA | 2018 Fall | Karate | | Training emphasizes fundamentals, traditional form, and applied sparring that follows the theory of Karate. | Prerequisites: None. | PED101KA may be repeated for credit. COMMON COMPETENCY COURSE | Occ | L+L 1.0 2.0 2.0 | T |
| PED101KB | 2018 Fall | Kickboxing | | Techniques to increase muscular endurance and strength, enhance flexibility and increase body awareness and self-confidence. Jabs, kicks, and blocks will be used in this martial arts based workout. | Prerequisites: None. | PED101KB may be repeated for credit. COMMON COMPETENCY COURSE | Occ | L+L 1.0 2.0 2.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| PED101KF | 2018 Fall | Kung Fu | | Techniques of one of the most comprehensive martial arts in China. | Prerequisites: None. | PED101KF may be repeated for credit. COMMON COMPETENCY COURSE | Occ | L+L 1.0 2.0 2.0 | T |
| PED101LD | 2018 Fall | Latin Dancing | | Spicy, energetic style of dance. Cha Cha, Merengue, Salsa, Rumba, and Bolero. Partners rotate. | Prerequisites: None. | PED101LD may be repeated for credit. COMMON COMPETENCY COURSE | Occ | L+L 1.0 2.0 2.0 | T |
| PED101LT | 2023 Spring | Lifeguard Training | | Designed to provide the knowledge and skills for preventing, recognizing, and responding to aquatic emergencies. Practical skills in water rescue, CPR, and first aid. | Prerequisites: None. | It is highly recommended that PED101LT students demonstrate the ability to tread water without the use of hands for one minute, swim 100 yards without stopping, and retrieve a weighted object at the bottom of the pool (minimum of 10 lbs). Students must be 16 years or older to enroll in PED101LT. PED101LT may be repeated for credit. | Occ | L+L 1.0 2.0 2.0 | T |
| PED101MD | 2018 Fall | Modern Dance | | Learn the skills and techniques to express yourself through dance. Practice and drills included. | Prerequisites: None. | PED101MD may be repeated for credit. COMMON COMPETENCY COURSE | Occ | L+L 1.0 2.0 2.0 | T |
| PED101PB | 2022 Fall | Pickleball | | Basic skills and game strategy of pickleball. Class emphasis on competition and drills. | Prerequisites: None. | PED101PB may be repeated for four (4) credits. Repeats 4.0 4.0 | Occ | L+L 1.0 2.0 2.0 | T |
| PED101PC | 2018 Fall | Physical Conditioning | | Exercise program with access to free weights, strength machines and cardio equipment. | Prerequisites: None. | PED101PC may be repeated for credit. COMMON COMPETENCY COURSE | Occ | L+L 1.0 2.0 2.0 | T |
| PED101PS | 2021 Fall | Pilates | | Mat-based exercise system focused on improving flexibility and strength for the total body. Teaches core control and stabilization while improving postural alignment. | Prerequisites: None. | PED101PS may be repeated for credit. | Occ | L+L 1.0 2.0 2.0 | T |
| PED101QG | 2018 Fall | Qi Gong | | Ancient Chinese Qi Gong breathing exercises for healing and opening channels of energy. Includes Power of Positive thought along with relaxation and meditation techniques. | Prerequisites: None. | PED101QG may be repeated for credit. COMMON COMPETENCY COURSE | Occ | L+L 1.0 2.0 2.0 | T |
| PED101RC | 2018 Fall | Rock Climbing | | Beginning climbing skills including equipment, knots, anchoring, belaying, and | Prerequisites: None. | PED101RC may be repeated for credit. COMMON COMPETENCY COURSE | Occ | L+L 1.0 2.0 2.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | climbing techniques in an indoor climbing gym. No previous experience needed. Develop strength and confidence. | | | | | |
| PED101RQ | 2018 Fall | Racquetball | | Basic skills and game strategy of racquetball. Class emphasis on competition and drills. | Prerequisites: None. | PED101RQ may be repeated for credit. COMMON COMPETENCY COURSE | Occ | L+L 1.0 2.0 2.0 | T |
| PED101RT | 2021 Fall | Resistance Training for Improved Sports Performance | | Introduction to sport-specific resistance training programs to enhance athletic performance. Includes focus on advanced assessment and sport-related resistance training, including Olympic lifting with a qualified instructor. | Prerequisites: None. | PED101RT may be repeated for credit. | Occ | L+L 1.0 2.0 2.0 | T |
| PED101SA | 2018 Fall | Salsa | | Basic moves for the popular, hot Latin dance Salsa. Partners rotate. | Prerequisites: None. | PED101SA may be repeated for credit. COMMON COMPETENCY COURSE | Occ | L+L 1.0 2.0 2.0 | T |
| PED101SB | 2018 Fall | Softball | | Basic skills and game strategy of softball. Class emphasis on competition and drills. | Prerequisites: None. | PED101SB may be repeated for credit. COMMON COMPETENCY COURSE | Occ | L+L 1.0 2.0 2.0 | T |
| PED101SD | 2018 Fall | Social Dance | | Introduction to various dances encountered in a social setting. Partners rotate. | Prerequisites: None. | PED101SD may be repeated for credit. COMMON COMPETENCY COURSE | Occ | L+L 1.0 2.0 2.0 | T |
| PED101SK | 2018 Fall | Downhill Snow Skiing | | Basics of downhill skiing. All skill levels welcome. | Prerequisites: None. | PED101SK may be repeated for credit. COMMON COMPETENCY COURSE | Occ | L+L 1.0 2.0 2.0 | T |
| PED101SM | 2021 Fall | Swimming | | Designed to improve cardiovascular fitness, flexibility and muscular endurance in an aquatic environment. Includes instruction in, practice with and individualized coaching on the basic swim strokes, breathing techniques and strategies to improve efficiency of movement in the water. | Prerequisites: None. | PED101SM may be repeated for credit. | Occ | L+L 1.0 2.0 2.0 | T |
| PED101SO | 2018 Fall | Soccer | | Basic skills and game strategy of soccer. Class emphasis on competition and drills. | Prerequisites: None. | PED101SO may be repeated for credit. COMMON COMPETENCY COURSE | Occ | L+L 1.0 2.0 2.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| PED101SR | 2018 Fall | Stretch and Relaxation | | A mat-based stretching class with guided meditation. Stretching increases flexibility and relieves stress, promoting an overall sense of well being. | Prerequisites: None. | PED101SR may be repeated for credit. COMMON COMPETENCY COURSE | Occ | L+L 1.0 2.0 2.0 | T |
| PED101ST | 2018 Fall | Strength Training | | Introduction to techniques of basic weight training, concentrating on incorporating an exercise regimen for increased strength. | Prerequisites: None. | PED101ST may be repeated for credit. COMMON COMPETENCY COURSE | Occ | L+L 1.0 2.0 2.0 | T |
| PED101SU | 2018 Fall | SCUBA Diving | | Introduction to the theory and practice of SCUBA diving. Course includes lectures, pool dives, open water dives, and SCUBA Certification. | Prerequisites: None. | PED101SU may be repeated for credit. COMMON COMPETENCY COURSE | Occ | L+L 1.5 2.5 2.5 | T |
| PED101SW | 2018 Fall | Swing Dancing | | Popular Swing dance moves and rhythms, including basic Lindy. All students will rotate. | Prerequisites: None. | PED101SW may be repeated for credit. COMMON COMPETENCY COURSE | Occ | L+L 1.0 2.0 2.0 | T |
| PED101TA | 2018 Fall | Tango | | Beginning, basic footwork and body mechanics for Tango. Partners rotate. | Prerequisites: None. | PED101TA may be repeated for credit. COMMON COMPETENCY COURSE | Occ | L+L 1.0 2.0 2.0 | T |
| PED101TC | 2018 Fall | Tai Chi | | Fundamentals of Tai Chi including moves, breathing and meditation. | Prerequisites: None. | PED101TC may be repeated for credit. COMMON COMPETENCY COURSE | Occ | L+L 1.0 2.0 2.0 | T |
| PED101TD | 2018 Fall | Tap Dance | | Introduction to Tap a step dance performed with the use of shoes with metal tips making rhythmic sounds. | Prerequisites: None. | PED101TD may be repeated for credit. COMMON COMPETENCY COURSE | Occ | L+L 1.0 2.0 2.0 | T |
| PED101TE | 2018 Fall | Tennis | | Basic skills and game strategy of tennis. Class emphasis on competition and drills. | Prerequisites: None. | PED101TE may be repeated for credit. COMMON COMPETENCY COURSE | Occ | L+L 1.0 2.0 2.0 | T |
| PED101TF | 2018 Fall | Track and Field | | Instruction and practice in track and field events, running, throwing and jumping. | Prerequisites: None. | PED101TF may be repeated for credit. COMMON COMPETENCY COURSE | Occ | L+L 1.0 2.0 2.0 | T |
| PED101TK | 2018 Fall | Taekwondo | | Fundamentals of Taekwondo including the moves, rules, and traditional discipline of the sport. | Prerequisites: None. | PED101TK may be repeated for credit. COMMON COMPETENCY COURSE | Occ | L+L 1.0 2.0 2.0 | T |
| PED101TT | 2018 Fall | Triathlon Training | | Train for triathlons. Beginners to elite. Learn training techniques for triathlon competition: Swim, Bike, Run. | Prerequisites: None. | PED101TT may be repeated for credit. COMMON COMPETENCY COURSE | Occ | L+L 1.0 2.0 2.0 | T |
| PED101TX | 2018 Fall | Suspension Training | | Suspension training using TRX or similar equipment. Designed to develop strength, | Prerequisites: None. | PED101TX may be repeated for credit. | Occ | L+L 1.0 2.0 2.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | balance, flexibility and core stability. Incorporates a variety of exercises using adjustable positions, stability levels and intensities. Suitable for all skill levels. | | | | | |
| PED101VB | 2018 Fall | Volleyball | | Basic skills and game strategy of volleyball. Class emphasis on competition and drills. | Prerequisites: None. | PED101VB may be repeated for credit. COMMON COMPETENCY COURSE | Occ | L+L 1.0 2.0 2.0 | T |
| PED101WS | 2018 Fall | West Coast Swing | | Basic patterns and rhythms of the classic dance style of West Coast Swing. Partners rotate. | Prerequisites: None. | PED101WS may be repeated for credit. COMMON COMPETENCY COURSE | Occ | L+L 1.0 2.0 2.0 | T |
| PED101WW | 2021 Fall | Weight Training for Women | | Designed to introduce students of all fitness levels to the fundamentals of resistance training in a safe and supportive environment. Includes hands-on demonstrations of and practice using equipment such as machine weights, free weights, and/or Olympic lifts. Individual workout programs developed under instructor supervision and strategies to integrate resistance training into lifestyle considered. | Prerequisites: None. | PED101WW may be repeated for credit. | Occ | L+L 1.0 2.0 2.0 | T |
| PED101YG | 2018 Fall | Gentle Yoga | | Focuses on the use of such props as blankets, blocks, and chairs to modify traditional Yoga poses, enabling participation with moderate effort and without strain; suitable for all levels but especially for students needing a slower pace. | Prerequisites: None. | PED101YG may be repeated for credit. | Occ | L+L 1.0 2.0 2.0 | T |
| PED101YH | 2018 Fall | Hatha Yoga | | Combination of traditional and flow style yoga that utilizes breathing, yoga poses, relaxation and meditation to create balance and inner peace. COMMON COMPETENCY COURSE | Prerequisites: None. | PED101YH may be repeated for credit. | Occ | L+L 1.0 2.0 2.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| PED101YI | 2018 Fall | Iyengar Yoga | | Form of Hatha Yoga using various props such as belts, blocks, and straps used to focus on precise body alignment. | Prerequisites: None. | PED101YI may be repeated for credit. COMMON COMPETENCY COURSE | Occ | L+L 1.0 2.0 2.0 | T |
| PED101YK | 2018 Fall | Kundalini Yoga | | Energetically guided Yoga focusing on psycho-spiritual growth with special consideration of the spine and endocrine system. | Prerequisites: None. | PED101YK may be repeated for credit. COMMON COMPETENCY COURSE | Occ | L+L 1.0 2.0 2.0 | T |
| PED101YO | 2018 Fall | Yoga | | Promotion of overall health by strengthening muscles and stimulating glands and organs. Basic postures, breathing and relaxation techniques. | Prerequisites: None. | PED101YO may be repeated for credit. COMMON COMPETENCY COURSE | Occ | L+L 1.0 2.0 2.0 | T |
| PED101YP | 2018 Fall | Power Yoga | | Yoga postures performed in a dynamic series designed to gain strength, add flexibility, release toxins, This is a vigorous, athletic form of yoga. | Prerequisites: None. | PED101YP may be repeated for credit. COMMON COMPETENCY COURSE | Occ | L+L 1.0 2.0 2.0 | T |
| PED101YR | 2018 Fall | Restorative Yoga | | Gentle form of Yoga poses utilizing props to create fully supported postures; focuses on relaxation and involves non-rigorous physical activity, providing rest and recovery and promoting the restoration of tranquility; suitable for all levels. | Prerequisites: None. | PED101YR may be repeated for credit. | Occ | L+L 1.0 2.0 2.0 | T |
| PED101ZU | 2021 Fall | Zumba Fitness | | Uses easy to follow dance movements and high energy music to enhance cardiovascular fitness and to promote self-esteem and confidence in physical movement. Provides an accepting and encouraging atmosphere for students of all levels to participate in a group fitness class. | Prerequisites: None. | PED101ZU may be repeated for credit. | Occ | L+L 1.0 2.0 2.0 | T |
| PED102 | 2018 Fall | Physical Activities: Intermediate | | Individual, dual, or team sports activities at the intermediate level. | Prerequisites: None. Prior experience recommended. | PED102 may be repeated for credit. COMMON COMPETENCY COURSE | Occ | L+L 1.0 2.0 2.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| PED102BA | 2018 Fall | Baseball - Intermediate | | To improve upon basic skills and game strategy of baseball at the intermediate level. Class emphasis on competition and drills. | Prerequisites: None. Prior experience recommended. | PED102BA may be repeated for credit. COMMON COMPETENCY COURSE | Occ | L+L 1.0 2.0 2.0 | T |
| PED102BB | 2018 Fall | Basketball - Intermediate | | To improve upon basic skills and game strategy of basketball at the intermediate level. Class emphasis on competition and drills. | Prerequisites: None. Prior experience recommended. | PED102BB may be repeated for credit. COMMON COMPETENCY COURSE | Occ | L+L 1.0 2.0 2.0 | T |
| PED102BC | 2018 Fall | Boot Camp - Intermediate | | Vigorous training at an intermediate level incorporating cardiovascular, core fitness, strength training, and flexibility. Emphasis will be placed on proper body mechanics and safety. | Prerequisites: None. Prior experience recommended. | PED102BC may be repeated for credit. COMMON COMPETENCY COURSE | Occ | L+L 1.0 2.0 2.0 | T |
| PED102BD | 2018 Fall | Ballroom Dancing - Intermediate | | Intermediate level instruction on ballroom dancing footwork, timing, techniques, and style. Partners rotate. | Prerequisites: None. Prior experience recommended. | PED102BD may be repeated for credit. COMMON COMPETENCY COURSE | Occ | L+L 1.0 2.0 2.0 | T |
| PED102BE | 2018 Fall | Belly Dance - Intermediate | | Practice and demonstration of basic belly dance skills and movements at the intermediate level. Posture and muscularity, primary upper and lower body isolations, footwork, intermediate level combination movements. Rhythms broken down, and at least two props demonstrated. Routine, improvisation, and current styles and trends in belly dance. Belly dance etiquette and attire. | Prerequisites: None. Prior experience recommended. | PED102BE may be repeated for credit. COMMON COMPETENCY COURSE | Occ | L+L 1.0 2.0 2.0 | T |
| PED102BL | 2018 Fall | Ballet - Intermediate | | Ballet steps, poses and graceful movements including leaps and spins at the intermediate level. | Prerequisites: None. Prior experience recommended. | PED102BL may be repeated for credit. COMMON COMPETENCY COURSE | Occ | L+L 1.0 2.0 2.0 | T |
| PED102CH | 2018 Fall | Cheerleaders - Intermediate | | Intermediate skills of cheerleading with instruction, practice, and performance including proper body mechanics, choreography, and behavioral competencies. | Prerequisites: None. Prior experience recommended. | PED102CH may be repeated for credit. COMMON COMPETENCY COURSE | Occ | L+L 1.0 2.0 2.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| PED102DF | 2018 Fall | Self Defense - Intermediate | | Intermediate self-defense skills, ground-fighting skills, and stand-up fighting capabilities. Practice is based on real-life experiences and endurance enhanced drills. Develops self confidence. Not recommended for beginners. | Prerequisites: None. Prior experience recommended. | PED102DF may be repeated for credit. COMMON COMPETENCY COURSE | Occ | L+L 1.0 2.0 2.0 | T |
| PED102FB | 2018 Fall | Football - Intermediate | | Improve upon basic skills and game strategy of football at the intermediate level. Class emphasis on competition and drills. | Prerequisites: None. Prior experience recommended. | PED102FB may be repeated for credit. COMMON COMPETENCY COURSE | Occ | L+L 1.0 2.0 2.0 | T |
| PED102FE | 2018 Fall | Fencing - Intermediate | | Build upon the basic skills in the sport of fencing. Intermediate level instruction in the use of a foil, saber, and epee. Emphasis on skill practice and competition. | Prerequisites: None. Prior experience recommended. | PED102FE may be repeated for credit. COMMON COMPETENCY COURSE | Occ | L+L 1.0 2.0 2.0 | T |
| PED102FL | 2018 Fall | Fitness for Life - Intermediate | | Intermediate level design and implementation of a personalized fitness program to increase your fitness level in the areas of Cardiovascular Fitness, Weight Control, Muscular Strength and Flexibility. | Prerequisites: None. Prior experience recommended. | PED102FL may be repeated for credit. COMMON COMPETENCY COURSE | Occ | L+L 1.0 2.0 2.0 | T |
| PED102GO | 2018 Fall | Golf - Intermediate | | Improving techniques of putting, chipping, the full swing, rules and scoring will be covered in this class. | Prerequisites: None. Prior experience recommended. | PED102GO may be repeated for credit. COMMON COMPETENCY COURSE | Occ | L+L 1.0 2.0 2.0 | T |
| PED102HH | 2018 Fall | Hip Hop - Intermediate | | Intermediate level dance instruction and practice in the skills of hip hop. Emphasis on performance including proper body mechanics, choreography, and behavioral competencies. | Prerequisites: None. Prior experience recommended. | PED102HH may be repeated for credit. COMMON COMPETENCY COURSE | Occ | L+L 1.0 2.0 2.0 | T |
| PED102HK | 2018 Fall | Hiking - Intermediate | | Improve your hiking skills on more challenging terrain. Includes Physical training. | Prerequisites: None. Prior experience recommended. | PED102HK may be repeated for credit. COMMON COMPETENCY COURSE | Occ | L+L 1.0 2.0 2.0 | T |
| PED102JR | 2018 Fall | Jogging/Running - Intermediate | | Intermediate training for jogging/running. Learn proper technique to decrease injury and increase training distance. | Prerequisites: None. Prior experience recommended. | PED102JR may be repeated for credit. COMMON COMPETENCY COURSE | Occ | L+L 1.0 2.0 2.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Not recommended for beginners. | | | | | |
| PED102JS | 2018 Fall | Japanese Swordmanship - Intermediate | | Intermediate level of vigorous martial arts swordmanship training program utilizing historical principles that promotes the development of fitness, coordination, agility, balance, mindfulness/focus, and knowledge of strategy. | Prerequisites: None. | PED102JS may be repeated for credit. | Occ | L+L 1.0 2.0 2.0 | T |
| PED102JZ | 2018 Fall | Jazz - Intermediate | | Intermediate dance skills for dancing Jazz. Not recommended for beginners. | Prerequisites: None. Prior experience recommended. | PED102JZ may be repeated for credit. COMMON COMPETENCY COURSE | Occ | L+L 1.0 2.0 2.0 | T |
| PED102KA | 2018 Fall | Karate - Intermediate | | Applied technique and theory of Karate at the intermediate level. | Prerequisites: None. Prior experience recommended. | PED102KA may be repeated for credit. COMMON COMPETENCY COURSE | Occ | L+L 1.0 2.0 2.0 | T |
| PED102KB | 2018 Fall | Kickboxing - Intermediate | | Intermediate level kickboxing techniques to increase muscular endurance and strength, enhance flexibility and increase body awareness and self- confidence. Not recommended for the beginner. | Prerequisites: None. Prior experience recommended. | PED102KB may be repeated for credit. COMMON COMPETENCY COURSE | Occ | L+L 1.0 2.0 2.0 | T |
| PED102LD | 2018 Fall | Latin Dancing - Intermediate | | Incorporate intermediate dance moves while performing Latin Dance. | Prerequisites: None. Prior experience recommended. | PED102LD may be repeated for credit. COMMON COMPETENCY COURSE | Occ | L+L 1.0 2.0 2.0 | T |
| PED102PC | 2018 Fall | Physical Conditioning - Intermediate | | Intermediate level exercise program with access to free weights, strength machines and cardio equipment. Not recommended for the beginner. | Prerequisites: None. Prior experience recommended. | PED102PC may be repeated for credit. COMMON COMPETENCY COURSE | Occ | L+L 1.0 2.0 2.0 | T |
| PED102PS | 2018 Fall | Pilates - Intermediate | | Intermediate level Mat-based exercise system focused on improving flexibility and strength for the total body. Teaches core control and stabilization while improving postural alignment. | Prerequisites: None. Prior experience recommended. | PED102PS may be repeated for credit. COMMON COMPETENCY COURSE | Occ | L+L 1.0 2.0 2.0 | T |
| PED102RC | 2018 Fall | Rock Climbing - Intermediate | | Improve upon basic skills of climbing including, knots, anchoring, belaying, and climbing techniques in an indoor climbing gym. Develop strength and confidence. | Prerequisites: None. Prior experience recommended. | PED102RC may be repeated for credit. COMMON COMPETENCY COURSE | Occ | L+L 1.0 2.0 2.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| PED102RT | 2021 Fall | Resistance Training for Improved Sports Performance - Intermediate | | Intermediate level of sport specific programs designed to enhance athletic performance. Includes a focus on advanced assessment and sport related resistance training including Olympic lifting and plyometrics with a qualified instructor. | Prerequisites: None. Prior experience recommended. | PED102RT may be repeated for credit. | Occ | L+L 1.0 2.0 2.0 | T |
| PED102SA | 2018 Fall | Salsa - Intermediate | | Learn the intermediate dance moves for Salsa. Not recommended for the beginning Salsa dancer. | Prerequisites: None. Prior experience recommended. | PED102SA may be repeated for credit. COMMON COMPETENCY COURSE | Occ | L+L 1.0 2.0 2.0 | T |
| PED102SB | 2018 Fall | Softball - Intermediate | | Improve upon basic skills and game strategy of softball at the intermediate level. Class emphasis on competition and drills. | Prerequisites: None. Prior experience recommended. | PED102SB may be repeated for credit. COMMON COMPETENCY COURSE | Occ | L+L 1.0 2.0 2.0 | T |
| PED102SO | 2018 Fall | Soccer - Intermediate | | To improve upon basic skills and game strategy of soccer at the intermediate level. Class emphasis on competition and drills. | Prerequisites: None. Prior experience recommended. | PED102SO may be repeated for credit. COMMON COMPETENCY COURSE | Occ | L+L 1.0 2.0 2.0 | T |
| PED102ST | 2018 Fall | Strength Training - Intermediate | | Intermediate techniques of strength training, concentrating on incorporating an exercise regimen for increased strength and endurance. Not recommended for the beginning weight lifter. | Prerequisites: None. Prior experience recommended. | PED102ST may be repeated for credit. COMMON COMPETENCY COURSE | Occ | L+L 1.0 2.0 2.0 | T |
| PED102SW | 2018 Fall | Swing Dancing - Intermediate | | Learn the intermediate dance moves for Swing Dancing. | Prerequisites: None. Prior experience recommended. | PED102SW may be repeated for credit. COMMON COMPETENCY COURSE | Occ | L+L 1.0 2.0 2.0 | T |
| PED102TC | 2018 Fall | Tai Chi - Intermediate | | Intermediate level techniques of Tai Chi including moves, breathing and meditation. | Prerequisites: None. Prior experience recommended. | PED102TC may be repeated for credit. COMMON COMPETENCY COURSE | Occ | L+L 1.0 2.0 2.0 | T |
| PED102TD | 2018 Fall | Tap Dance-Intermediate | | Tap dance steps at the intermediate level. Some experience welcomed | Prerequisites: None. Prior experience recommended. | | | L+L 1.0 2.0 2.0 | T |
| PED102TE | 2018 Fall | Tennis - Intermediate | | Improve upon basic skills and game strategy of tennis at the intermediate level. Class emphasis on competition and drills. | Prerequisites: None. Prior experience recommended. | PED102TE may be repeated for credit. COMMON COMPETENCY COURSE | Occ | L+L 1.0 2.0 2.0 | T |
| PED102TF | 2018 Fall | Track and Field - Intermediate | | To improve upon basic track and field event skills at the intermediate level. Class | Prerequisites: None. Prior experience recommended. | PED102TF may be repeated for credit. COMMON COMPETENCY COURSE | Occ | L+L 1.0 2.0 2.0 | T |



Occ

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | emphasis on competition and drills. | | | | | |
| PED102TK | 2018 Fall | Taekwondo - Intermediate | | Intermediate level training in Taekwondo. | Prerequisites: None. Prior experience recommended. | PED102TK may be repeated for credit. COMMON COMPETENCY COURSE | Occ | L+L 1.0 2.0 2.0 | T |
| PED102TT | 2018 Fall | Triathlon Training - Intermediate | | Intermediate level training for triathletes. Improve your training techniques for triathlon competition: Swim, Bike, Run. | Prerequisites: None. Prior experience recommended. | PED102TT may be repeated for credit. COMMON COMPETENCY COURSE | Occ | L+L 1.0 2.0 2.0 | T |
| PED102VB | 2018 Fall | Volleyball - Intermediate | | Improve upon basic skills and game strategy of volleyball at the intermediate level. Class emphasis on competition and drills. | Prerequisites: None. Prior experience recommended. | PED102VB may be repeated for credit. COMMON COMPETENCY COURSE | Occ | L+L 1.0 2.0 2.0 | T |
| PED102WW | 2021 Fall | Weight Training for Women - Intermediate | | Designed to advance the resistance training routines of more experienced students in a progressive fashion. Includes principles of and practice with the safe use of free and machine weights and Olympic lifts as well as strategies for effective workouts. Customized training programs devised with instructor guidance. Consideration of resistance training as part of a comprehensive health, fitness and wellness program included. | Prerequisites: None. Prior experience recommended. | PED102WW may be repeated for credit. | Occ | L+L 1.0 2.0 2.0 | T |
| PED102YO | 2018 Fall | Yoga - Intermediate | | Yoga for the experienced practitioner. | Prerequisites: None. Prior experience recommended. | PED102YO may be repeated for credit. COMMON COMPETENCY COURSE | Occ | L+L 1.0 2.0 2.0 | T |
| PED102YP | 2018 Fall | Power Yoga - Intermediate | | Intermediate level Yoga postures performed in a dynamic series designed to gain strength, add flexibility, release toxins, This is a vigorous, athletic form of yoga. | Prerequisites: None. Prior experience recommended. | PED102YP may be repeated for credit. COMMON COMPETENCY COURSE | Occ | L+L 1.0 2.0 2.0 | T |
| PED103 | 2018 Fall | Physical Activities: Basic | | Individual, dual, or team sports activities at the basic level. | Prerequisites: None. | PED103 may be repeated for credit. COMMON COMPETENCY COURSE | Occ | L+L 0.5 1.0 1.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| PED103AQ | 2019 Fall | Aquatic Fitness | | This aquatic fitness class offers knowledge and skills to keep fit for life. It teaches safe performance of movement and exercise in a progressive approach and offers an opportunity to improve and/or maintain a high level of fitness through application of aerobic training principles in an aquatic environment. Swimming skills are not required. This class is designed for all fitness levels. Students are encouraged to understand their own limitations and work within their bounds. | Prerequisites: None. | PED103AQ may be repeated for credit. | Occ | L+L 0.5 1.0 1.0 | T |
| PED103BC | 2018 Fall | Boot Camp | | Vigorous physical and mental conditioning incorporating cardiovascular, core fitness, strength training, and flexibility. Emphasis will be placed on proper body mechanics and safety. | Prerequisites: None. | PED103BC may be repeated for credit. COMMON COMPETENCY COURSE | Occ | L+L 0.5 1.0 1.0 | T |
| PED103BD | 2018 Fall | Ballroom Dancing | | Basic level instruction on ballroom dancing footwork, timing, techniques, and style. Partners rotate. | Prerequisites: None. | PED103BD may be repeated for credit. COMMON COMPETENCY COURSE | Occ | L+L 0.5 1.0 1.0 | T |
| PED103BE | 2018 Fall | Belly Dance | | Practice and demonstration of basic belly dance skills and movements. Basic posture and muscularity, primary upper and lower body isolations, footwork, simple combination movements. Rhythms broken down, and at least one prop demonstrated. Basic routine, improvisation, and current styles and trends in belly dance. Belly dance etiquette and attire. | Prerequisites: None. | PED103BE may be repeated for credit. COMMON COMPETENCY COURSE | Occ | L+L 0.5 1.0 1.0 | T |
| PED103BS | 2018 Fall | Body Sculpting | | Stretch and strengthen. Emphasizes increasing fitness, muscle tone, and body | Prerequisites: None. | PED103BS may be repeated for credit. COMMON COMPETENCY COURSE | Occ | L+L 0.5 1.0 1.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | flexibility. Great for reducing stress. | | | | | |
| PED103CY | 2018 Fall | Cycling - Indoor | | Basic skills for bike set up and proper body mechanics. Increase leg strength, lung capacity, and metabolism. | Prerequisites: None. | PED103CY may be repeated for credit. COMMON COMPETENCY COURSE | Occ | L+L 0.5 1.0 1.0 | T |
| PED103DF | 2018 Fall | Self Defense | | Basic self-defense skills, ground-fighting skills, and stand-up fighting capabilities. Modified for all skill levels. Practice is based on real-life experiences and endurance enhanced drills. Develops self confidence. | Prerequisites: None. | PED103DF may be repeated for credit. COMMON COMPETENCY COURSE | Occ | L+L 0.5 1.0 1.0 | T |
| PED103GF | 2018 Fall | Group Fitness/Aerobics | | Group exercise incorporating a variety of equipment to increase respiration, heart rates, strength, and flexibility. | Prerequisites: None. | PED103GF may be repeated for credit. COMMON COMPETENCY COURSE | Occ | L+L 0.5 1.0 1.0 | T |
| PED103HK | 2018 Fall | Hiking | | Develop safe and effective hiking skills. Essentials and requirements for safe hiking; proper hiking clothing and attire; impact of hiking on the environment. | Prerequisites: None. | PED103HK may be repeated for credit. COMMON COMPETENCY COURSE | Occ | L+L 0.5 1.0 1.0 | T |
| PED103KB | 2018 Fall | Kickboxing | | Techniques to increase muscular endurance and strength, enhance flexibility and increase body awareness and self-confidence. Jabs, kicks, and blocks will be used in this martial arts based workout. | Prerequisites: None. | PED103KB may be repeated for credit. COMMON COMPETENCY COURSE | Occ | L+L 0.5 1.0 1.0 | T |
| PED103KF | 2018 Fall | Kung Fu | | Techniques of one of the most comprehensive martial arts in China. | Prerequisites: None. | PED103KF may be repeated for credit. COMMON COMPETENCY COURSE | Occ | L+L 0.5 1.0 1.0 | T |
| PED103LD | 2018 Fall | Latin Dancing | | Spicy, energetic style of dance. Cha Cha, Merengue, Salsa, Rumba, and Bolero. Partners rotate. | Prerequisites: None. | PED103LD may be repeated for credit. COMMON COMPETENCY COURSE | Occ | L+L 0.5 1.0 1.0 | T |
| PED103PC | 2018 Fall | Physical Conditioning | | Exercise program with access to free weights, strength machines and cardio equipment. | Prerequisites: None. | PED103PC may be repeated for credit. COMMON COMPETENCY COURSE | Occ | L+L 0.5 1.0 1.0 | T |
| PED103PS | 2018 Fall | Pilates | | Mat-based exercise system focused on improving flexibility and strength for the total body. | Prerequisites: None. | PED103PS may be repeated for credit. COMMON COMPETENCY COURSE | Occ | L+L 0.5 1.0 1.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Teaches core control and stabilization while improving postural alignment. | | | | | |
| PED103QG | 2018 Fall | Qi Gong | | Ancient Chinese Qi Gong breathing exercises for healing and opening channels of energy. Includes Power of Positive thought along with relaxation and meditation techniques. | Prerequisites: None. | PED103QG may be repeated for credit. COMMON COMPETENCY COURSE | Occ | L+L 0.5 1.0 1.0 | T |
| PED103SA | 2018 Fall | Salsa | | Basic moves for the popular, hot Latin dance Salsa. Partners rotate. | Prerequisites: None. | PED103SA may be repeated for credit. COMMON COMPETENCY COURSE | Occ | L+L 0.5 1.0 1.0 | T |
| PED103SM | 2021 Fall | Swimming | | Designed to improve cardiovascular fitness, flexibility and muscular endurance in an aquatic environment. Includes instruction and coaching in basic swim strokes and breathing techniques as well as tips for improving efficiency of movement in the water. | Prerequisites: None. | PED103SM may be repeated for credit. | Occ | L+L 0.5 1.0 1.0 | T |
| PED103SR | 2018 Fall | Stretch and Relaxation | | A mat-based stretching class with guided meditation. Stretching increases flexibility and relieves stress, promoting an overall sense of well being. | Prerequisites: None. | PED103SR may be repeated for credit. COMMON COMPETENCY COURSE | Occ | L+L 0.5 1.0 1.0 | T |
| PED103TC | 2018 Fall | Tai Chi | | Fundamentals of Tai Chi including moves, breathing and meditation. | Prerequisites: None. | PED103TC may be repeated for credit. COMMON COMPETENCY COURSE | Occ | L+L 0.5 1.0 1.0 | T |
| PED103TX | 2018 Fall | Suspension Training | | Suspension training using TRX or similar equipment. Designed to develop strength, balance, flexibility and core stability. Incorporates a variety of exercises using adjustable positions, stability levels and intensities. Suitable for all skill levels. | Prerequisites: None. | PED103TX may be repeated for credit. Common Competency Course | Occ | L+L 0.5 1.0 1.0 | T |
| PED103VB | 2018 Fall | Volleyball | | Basic skills and game strategy of volleyball. Class emphasis on competition and drills. | Prerequisites: None. | PED103VB may be repeated for credit. COMMON COMPETENCY COURSE | Occ | L+L 0.5 1.0 1.0 | T |
| PED103WW | 2018 Fall | Weight Training for Women | | Introduction for women to the use of free weights, strength | Prerequisites: None. | PED103WW may be repeated for credit. COMMON COMPETENCY COURSE | Occ | L+L 0.5 1.0 1.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | machines and cardio equipment. | | | | | |
| PED103YG | 2018 Fall | Gentle Yoga | | Focuses on the use of such props as blankets, blocks, and chairs to modify traditional Yoga poses, enabling participation with moderate effort and without strain; suitable for all levels but especially for students needing a slower pace. | Prerequisites: None. | PED101YG may be repeated for credit. | Occ | L+L 0.5 1.0 1.0 | T |
| PED103YH | 2018 Fall | Hatha Yoga | | Combination of traditional and flow style yoga that utilizes breathing, yoga poses, relaxation and meditation to create balance and inner peace. | Prerequisites: None. | PED103YH may be repeated for credit. COMMON COMPETENCY COURSE | Occ | L+L 0.5 1.0 1.0 | T |
| PED103YI | 2018 Fall | Iyengar Yoga | | Form of Hatha Yoga using various props such as belts, blocks, and straps used to focus on precise body alignment. | Prerequisites: None. | PED103YI may be repeated for credit. COMMON COMPETENCY COURSE | Occ | L+L 0.5 1.0 1.0 | T |
| PED103YK | 2018 Fall | Kundalini Yoga | | Energetically guided Yoga focusing on psycho-spiritual growth with special consideration of the spine and endocrine system. | Prerequisites: None. | PED103YK may be repeated for credit. COMMON COMPETENCY COURSE | Occ | L+L 0.5 1.0 1.0 | T |
| PED103YO | 2018 Fall | Yoga | | Promotion of overall health by strengthening muscles and stimulating glands and organs. Basic postures, breathing and relaxation techniques. | Prerequisites: None. | PED103YO may be repeated for credit. COMMON COMPETENCY COURSE | Occ | L+L 0.5 1.0 1.0 | T |
| PED103YP | 2018 Fall | Power Yoga | | Yoga postures performed in a dynamic series designed to gain strength, add flexibility, release toxins. This is a vigorous, athletic form of yoga. | Prerequisites: None. | PED103YP may be repeated for credit. COMMON COMPETENCY COURSE | Occ | L+L 0.5 1.0 1.0 | T |
| PED103YR | 2018 Fall | Restorative Yoga | | Gentle form of Yoga poses utilizing props to create fully supported postures; focuses on relaxation and involves non-rigorous physical activity, providing rest and recovery and promoting the restoration | Prerequisites: None. | PED101YR may be repeated for credit. | Occ | L+L 0.5 1.0 1.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | of tranquility; suitable for all levels. | | | | | |
| PED103ZU | 2018 Fall | Zumba Fitness | | Zumba dynamic fitness program. Features high energy, easy to follow rhythmic moves set to energizing Latin and international beats. Provides an enjoyable way to increase fitness level. | Prerequisites: None. | PED103ZU may be repeated for credit. | Occ | L+L 0.5 1.0 1.0 | T |
| PED105 | 2016 Summer | Army Master Fitness | | Introduces the student to the Army Master Fitness Program. Designed to enhance the student's level of individual fitness and wellness. | Prerequisites: None. | PED105 may be repeated for credit. PED105 is taught at the ASU Tempe Campus. Contact the Army ROTC Department. | Occ | L+L 1.0 3.0 0.0 | Z |
| PED114 | 2018 Fall | Fitness | | Fitness activity and wellness study to help develop a lifetime of regular exercise, stress management, and proper nutrition. Workout includes warm-up/stretch, aerobic exercise, selected strength exercises, and cool down/stretch. | Prerequisites: None. | PED114 may be repeated for credit. | Occ | L+L 1.5 3.0 3.0 | T |
| PED115 | 2018 Fall | Lifetime Fitness | | Increase personal fitness, strength, and vitality. Current principles of cardiovascular exercise, weight training, flexibility, and balance exercises applicable to lifetime fitness goals. Personalized fitness plans developed and implemented with support of highly trained fitness professionals. Techniques to make sessions more effective and enjoyable. | Prerequisites: None. | PED115 may be repeated for a total of eight (8) credit hours. | Occ | L+L 2.0 4.0 4.0 | T |
| PED116 | 2018 Fall | Cardiovascular Fitness | | Blends an effective warm-up, challenging cardiovascular and strength/endurance training strategies and a relaxing cool-down. Tailored by certified fitness professionals to personal goals. | Prerequisites: None. | PED116 may be repeated for a total of eight (8) credit hours. | Occ | L+L 2.0 4.0 4.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| PED117 | 2018 Fall | Weight Training for Wellness | | Strength training and muscular fitness activity to help develop a lifetime of regular exercise and muscular strength maintenance. Development of full body strength and stability of the body's core musculature, translating to increased power, balance, and functional movement ability including assessment of current strength and goal-specific program design to increase strength and muscular fitness. | Prerequisites: None. | PED117 may be repeated for a maximum of eight (8) credit hours. | Occ | L+L 2.0 4.0 4.0 | T |
| PED118 | 2018 Fall | Exercise is Medicine(r) | | Group exercise that is individualized by highly trained fitness professionals to help meet personal health enhancement goals. Designed to follow the national initiative, "Exercise is Medicine(r)", coordinated by the American College of Sports Medicine (ACSM) and the American Medical Association (AMA) to help improve overall health and well-being. Designed for individuals over age 55. | Prerequisites: None. | PED118 may be repeated for a total of six (6) credit hours. | Occ | L+L 1.5 3.0 3.0 | T |
| PED120AF | 2018 Fall | Special Emphasis Activities: Weight Training | | Intensive experience in weight training. | Prerequisites: None. | PED120AF may be repeated for a total of 8 credits. COMMON COMPETENCY COURSE | Occ | L+L 2.0 4.0 4.0 | T |
| PED124 | 2018 Fall | Strength and Conditioning for Sport Performance: Basic | | Introduction to the principles and training techniques of strength and conditioning for sport performance. Emphasis is placed on beginning instructional techniques and safety of Olympic lifts; plyometrics; muscular endurance, strength and power development; anaerobic and aerobic capacity. | Prerequisites: None. | PED124 may be repeated for a total of eight (8) credit hours. | Occ | L+L 2.0 4.0 4.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| PED125 | 2018 Fall | Strength and Conditioning for Sport Performance: Intermediate | | Principles and training techniques of strength and conditioning for sport performance. Emphasis is placed on instructional techniques and safety of Olympic lifts; plyometrics; muscular endurance, strength and power development; anaerobic and aerobic capacity. | Prerequisites: A grade of C or better in PED124. | PED125 may be repeated for a total of eight (8) credit hours. | Occ | L+L 2.0 4.0 4.0 | T |
| PED133 | 2018 Fall | Olympic Style Weight Lifting | | Advanced study of the science, strategy, and techniques of Olympic Style Weightlifting. For the fitness professional who is interested in competing, or is seeking to incorporate advanced strength and conditioning modalities. Addresses current topics, theories and techniques | Prerequisites: None. | | Occ | L+L 2.0 4.0 4.0 | T |
| PED158 | 2016 Summer | Tradition and Practice of Yoga III | | A deep exploration of the yogic path as it relates to the self, to teaching yoga, and to society as a whole. Emphasis on the early and modern intellectual foundations of yoga. | Prerequisites: A grade of C or better in PED150 and PED155. | | Occ | LEC 2.0 2.0 2.0 | S |
| PED191 | 2018 Fall | Corrective Exercise for Athletes: Basic | | Evaluation of functional movement ability and corrective activity to improve specific functional movements. Optimize functional movement abilities by designing corrective activity to improve weaknesses, correct imbalances and asymmetries in order to contribute to athletic and fitness performance. | Prerequisites: None. | | Occ | L+L 1.0 2.0 2.0 | T |
| PED192 | 2018 Fall | Corrective Exercise for Athletes: Intermediate | | Evaluation of functional movement ability and corrective activity to improve functional movement at the intermediate level. Optimize functional movement abilities | Prerequisites: A grade of C or better in PED191 or permission of Instructor. | | Occ | L+L 1.0 2.0 2.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | and dynamic sport movement by designing corrective activity at the intermediate level to improve weaknesses, correct imbalances and asymmetries in order to contribute to athletic and fitness performance. | | | | | |
| PED201BA | 2018 Fall | Baseball - Advanced | | To improve upon intermediate skills and game strategy of baseball at the advanced level. Class emphasis on competition and drills. | Prerequisites: None. Prior experience at competitive level recommended. | PED201BA may be repeated for credit. COMMON COMPETENCY COURSE | Occ | L+L 1.0 2.0 2.0 | T |
| PED201BB | 2018 Fall | Basketball - Advanced | | To improve upon intermediate skills and game strategy of basketball at the advanced level. Class emphasis on competition and drills. | Prerequisites: None. Prior experience at competitive level recommended. | PED201BB may be repeated for credit. COMMON COMPETENCY COURSE | Occ | L+L 1.0 2.0 2.0 | T |
| PED201BD | 2018 Fall | Ballroom Dancing - Advanced | | Advanced level instruction on ballroom dancing footwork, timing, techniques, and style. Partners rotate. | Prerequisites: None. Prior experience at competitive level recommended. | PED201BD may be repeated for credit. COMMON COMPETENCY COURSE | Occ | L+L 1.0 2.0 2.0 | T |
| PED201CH | 2018 Fall | Cheerleaders - Advanced | | Advanced skills of cheerleading with instruction, practice, and performance including proper body mechanics, choreography, and behavioral competencies. | Prerequisites: None. Prior experience at competitive level recommended. | PED201CH may be repeated for credit. COMMON COMPETENCY COURSE | Occ | L+L 1.0 2.0 2.0 | T |
| PED201FB | 2018 Fall | Football - Advanced | | Improve upon intermediate skills and game strategy of football at the advanced level. Class emphasis on competition and drills. | Prerequisites: None. Prior experience at competitive level recommended. | PED201FB may be repeated for credit. COMMON COMPETENCY COURSE | Occ | L+L 1.0 2.0 2.0 | T |
| PED201GO | 2018 Fall | Golf - Advanced | | Experienced golfers gain helpful hints and practice to improve their game. | Prerequisites: None. Prior experience at competitive level recommended. | PED201GO may be repeated for credit. COMMON COMPETENCY COURSE | Occ | L+L 1.0 2.0 2.0 | T |
| PED201PC | 2018 Fall | Physical Conditioning - Advanced | | Advanced level training program with access to free weights, strength machines and cardio equipment. | Prerequisites: None. Prior experience at competitive level recommended. | PED201PC may be repeated for credit. COMMON COMPETENCY COURSE | Occ | L+L 1.0 2.0 2.0 | T |
| PED201SA | 2018 Fall | Salsa - Advanced | | Learn the advanced dance moves for Salsa. | Prerequisites: None. Prior experience at competitive level recommended. | PED201SA may be repeated for credit. COMMON COMPETENCY COURSE | Occ | L+L 1.0 2.0 2.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| PED201SB | 2018 Fall | Softball - Advanced | | Improve upon intermediate skills and game strategy of softball at the advanced level. Class emphasis on competition and drills. | Prerequisites: None. Prior experience at competitive level recommended. | PED201SB may be repeated for credit. COMMON COMPETENCY COURSE | Occ | L+L 1.0 2.0 2.0 | T |
| PED201SO | 2018 Fall | Soccer - Advanced | | To improve upon intermediate skills and game strategy of soccer at the advanced level. Class emphasis on competition and drills. | Prerequisites: None. Prior experience at competitive level recommended. | PED201SO may be repeated for credit. COMMON COMPETENCY COURSE | Occ | L+L 1.0 2.0 2.0 | T |
| PED201ST | 2018 Fall | Strength Training - Advanced | | Advanced techniques of strength training, concentrating on incorporating a vigorous exercise regimen for increasing muscle strength and endurance. | Prerequisites: None. Prior experience at competitive level recommended. | PED201ST may be repeated for credit. COMMON COMPETENCY COURSE | Occ | L+L 1.0 2.0 2.0 | T |
| PED201SU | 2018 Fall | Scuba Diving: Advanced | | Additional training in SCUBA techniques. Pool sessions and weekend open water dives will provide training in: Underwater Navigation, Underwater Naturalist, Deep Dive, and other specialties. | Prerequisites: None. Prior experience at competitive level recommended. | PED201SU may be repeated for credit. COMMON COMPETENCY COURSE | Occ | L+L 1.0 2.0 2.0 | T |
| PED201TC | 2018 Fall | Tai Chi - Advanced | | Advanced level techniques of Tai Chi including moves, breathing and meditation. | Prerequisites: None. Prior experience at competitive level recommended. | PED201TC may be repeated for credit. COMMON COMPETENCY COURSE | Occ | L+L 1.0 2.0 2.0 | T |
| PED201TF | 2018 Fall | Track and Field - Advanced | | Advanced level training in track and field events. Class emphasis on competition and drills. | Prerequisites: None. Prior experience at competitive level recommended. | PED201TF may be repeated for credit. COMMON COMPETENCY COURSE | Occ | L+L 1.0 2.0 2.0 | T |
| PED201VB | 2018 Fall | Volleyball - Advanced | | Improve upon intermediate skills and game strategy of volleyball at the advanced level. Class emphasis on competition and drills. | Prerequisites: None. Prior experience at competitive level recommended. | PED201VB may be repeated for credit. COMMON COMPETENCY COURSE | Occ | L+L 1.0 2.0 2.0 | T |
| PED201WT | 2018 Fall | Weight Training - Advanced | | Advanced level training with a qualified instructor on the use of Olympic and Free Weights. | Prerequisites: None. Prior experience at competitive level recommended. | PED201WT may be repeated for credit. COMMON COMPETENCY COURSE | Occ | L+L 1.0 2.0 2.0 | T |
| PED201YO | 2018 Fall | Yoga - Advanced | | Advanced yoga postures. | Prerequisites: None. Prior experience recommended. | PED201YO may be repeated for credit. COMMON COMPETENCY COURSE | Occ | L+L 1.0 2.0 2.0 | T |
| PED202 | 2018 Fall | Physical Activities: Elite | | Individual, dual, or team sports activities at the elite level. | Prerequisites: None. Prior experience at | PED202 may be repeated for credit. | Occ | L+L 1.0 2.0 2.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | competitive level recommended. | | | | |
| PED202BA | 2018 Fall | Baseball - Elite | | Improve upon advanced skills and game strategy of baseball at the elite level. Class emphasis on competition and drills. | Prerequisites: None. Prior experience at competitive level recommended. | PED202BA may be repeated for credit. | Occ | L+L 1.0 2.0 2.0 | T |
| PED202BB | 2018 Fall | Basketball - Elite | | Improve upon advanced skills and game strategy of basketball at the elite level. Class emphasis on competition and drills. | Prerequisites: None. Prior experience at competitive level recommended. | PED202BB may be repeated for credit. | Occ | L+L 1.0 2.0 2.0 | T |
| PED202FB | 2018 Fall | Football - Elite | | Improve upon advanced skills and game strategy of football at the elite level. Class emphasis on competition and drills. | Prerequisites: None. Prior experience at competitive level recommended. | PED202FB may be repeated for credit. | Occ | L+L 1.0 2.0 2.0 | T |
| PED202SB | 2018 Fall | Softball - Elite | | Improve upon advanced skills and game strategy of softball at the elite level. Class emphasis on competition and drills. | Prerequisites: None. Prior experience at competitive level recommended. | PED202SB may be repeated for credit. | Occ | L+L 1.0 2.0 2.0 | T |
| PED202SO | 2018 Fall | Soccer - Elite | | Improve upon advanced skills and game strategy of soccer at the elite level. Class emphasis on competition and drills. | Prerequisites: None. Prior experience at competitive level recommended. | PED202SO may be repeated for credit. | Occ | L+L 1.0 2.0 2.0 | T |
| PED202TF | 2018 Fall | Track and Field - Elite | | Improve upon advanced skills and game strategy of track and field at the elite level. Class emphasis on competition and drills. | Prerequisites: None. Prior experience at competitive level recommended. | PED202TF may be repeated for credit. | Occ | L+L 1.0 2.0 2.0 | T |
| PED202VB | 2018 Fall | Volleyball - Elite | | Improve upon advanced skills and game strategy of volleyball at the elite level. Class emphasis on competition and drills. | Prerequisites: None. Prior experience at competitive level recommended. | PED202VB may be repeated for credit. | Occ | L+L 1.0 2.0 2.0 | T |
| PED224 | 2018 Fall | Strength and Conditioning for Sport Performance: Advanced | | Principles and training techniques of strength and conditioning for sport performance. Emphasis placed on instructional techniques and safety of Olympic lifts; plyometrics; muscular endurance, strength and power development; | Prerequisites: A grade of C or better in PED124 and PED125. | PED224 may be repeated for a total of eight (8) credit hours. | Occ | L+L 2.0 4.0 4.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | anaerobic and aerobic capacity; and injury prevention. | | | | | |
| PED225 | 2018 Fall | Strength and Conditioning for Sport Performance: Elite | | Principles and training techniques of strength and conditioning for sport performance. Emphasis placed on instructional techniques and safety of Olympic lifts; plyometrics; muscular endurance, strength and power development; anaerobic and aerobic capacity; injury prevention; and assessment techniques. | Prerequisites: A grade of C or better in PED124, PED125 and PED224. | PED225 may be repeated for a total of eight (8) credit hours. | Occ | L+L 2.0 4.0 4.0 | T |
| PED280 | 2018 Fall | Introduction to Yoga Therapy | | Introduction to the therapeutic use of yoga. Includes basic concepts of yoga therapy, identification of common therapeutic problems and application of yoga asana as a modality of healing. Demonstration and practice of therapeutic techniques and sequences to improve movement and promote health and well-being. | Prerequisites: A grade of C or better in PED270 or permission of Instructor. | | Occ | L+L 2.0 2.0 2.0 | T |
| PED281 | 2018 Fall | Yoga Therapy - Upper Body Principles | | Basic concepts of yoga therapy, review of therapeutic interventions, identification of common therapeutic problems, and application of yoga asana as a modality of healing. Demonstration and practice of therapeutic techniques and sequences to improve movement capability and promote health and well-being of the upper body. Emphasis on the study of chronic problem areas and therapeutic issues with shoulders and upper body. | Prerequisites: A grade of C or better in PED280 or permission of Instructor. | | Occ | L+L 2.0 2.0 2.0 | T |
| PED282AA | 2016 Summer | Service-Learning Experience in Physical Education | | Unpaid Service-Learning (SL) experience, completed with approved community partner. | Prerequisites: Permission of Instructor. | PED282AA may be repeated for a total of six (6) credit hours. Standard grading available | Occ | LAB 1.0 1.0 0.0 | L |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | according to procedures outlined in catalog. | | | |
| PED282AB | 2016 Summer | Service-Learning Experience in Physical Education | | Unpaid Service-Learning (SL) experience, completed with approved community partner. | Prerequisites: Permission of Instructor. | PED282AB may be repeated for a total of six (6) credit hours. Standard grading available according to procedures outlined in catalog. | Occ | LAB 2.0 2.0 0.0 | L |
| PED282AC | 2016 Summer | Service-Learning Experience in Physical Education | | Unpaid Service-Learning (SL) experience, completed with approved community partner. | Prerequisites: Permission of Instructor. | PED282AC may be repeated for a total of six (6) credit hours. Standard grading available according to procedures outlined in catalog. | Occ | LAB 3.0 3.0 0.0 | L |
| PED283 | 2018 Fall | Yoga Therapy - Low Back Principles | | Basic concepts of yoga therapy, review of therapeutic interventions, identification of common therapeutic problems, and application of yoga asana as a modality of healing. Demonstration and practice of therapeutic techniques and sequences to improve movement capability and promote health and well-being. Emphasis on the study of chronic problem areas and therapeutic issues associated with the lower back. | Prerequisites: A grade of C or better in PED280 or permission of Instructor. | | Occ | L+L 2.0 2.0 2.0 | T |
| PED284 | 2018 Fall | Yoga Therapy - Knee Principles | | Basic concepts of yoga therapy, review of therapeutic interventions, identification of common therapeutic problems of the knee, and application of yoga asana as a modality of healing. Demonstration and practice of therapeutic techniques and sequences to improve movement capability and promote health and well-being. Emphasis on the study of chronic problem areas and therapeutic issues. | Prerequisites: A grade of C or better in PED280 or permission of Instructor. | | Occ | L+L 2.0 2.0 2.0 | T |
| PED287 | 2016 Summer | Physical Education of the Atypical | | Individualized activities programs for students with limited physical capacities. | Prerequisites: Permission of Instructor. | PED287 may be repeated for credit. | Occ | LEC 2.0 2.0 2.0 | S |
| PED288 | 2013 Fall | Yoga Therapy Practicum | | Focus on immersion in the area of Yoga Therapy. Yoga | Prerequisites: A grade of C or better in | PED288 may be repeated for a total of eight (8) credit hours. | Occ | LAB 2.0 10.0 0.0 | C |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Therapy application onsite at the community college with a current instructor of Yoga. Requires minimum of 150 contact hours. | (PED280, PED281, PED283, and PED284) or permission of Program Director. | | | | |
| PED291 | 2018 Fall | Corrective Exercise for Athletes: Advanced | | Evaluation of functional movement ability and corrective activity to improve functional movement at an advanced level. Optimize functional movement abilities by designing advanced corrective activity to improve weaknesses, correct imbalances and asymmetries in order to contribute to athletic and fitness performance. Self-assessment at an advanced level of imbalances and selection of appropriate corrective exercises. | Prerequisites: A grade of C or better in PED192 or permission of Instructor. | | Occ | L+L 1.0 2.0 2.0 | T |
| PED296WA | 2002 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor. | | Occ | LAB 1.0 5.0 0.0 | Z |
| PED296WB | 2002 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a | | | LAB 2.0 10.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | COMMON COMPETENCY COURSE | position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor. | | | | |
| PED296WC | 2002 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor. | | Occ | LAB 3.0 15.0 0.0 | Z |
| PED296WD | 2002 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or | Occ | | LAB 4.0 20.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | career interest or with permission of Instructor. | | | | |
| PED298AA | 2011 Summer I | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. | Prerequisites: Permission of Program Director or Instructor. | | Occ | LAB 1.0 1.0 0.0 | Z |
| PED298AB | 2011 Summer I | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. | Prerequisites: Permission of Program Director or Instructor. | | Occ | LAB 2.0 2.0 0.0 | Z |
| PED298AC | 2011 Summer I | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be | Prerequisites: Permission of Program Director or Instructor. | | Occ | LAB 3.0 3.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | combined to maximize student development. | | | | | |
| PHC101 | 2021 Fall 1 | Pharmacology for Pharmacy Technicians | | Overall history of pharmacy from ancient times to today; pharmacy technician job ethics and responsibilities; state and national drug laws and regulations; pharmacy information reference material; pharmaceutical abbreviations and introduction to prescription sig codes. | Prerequisites: 1. Successful completion of RDG100 or higher or appropriate reading placement into CRE101. 2. Successful completion of MAT090, MAT091, MAT092, MAT095, MAT096 or higher, or appropriate math placement into MAT103. | | CLK | 60 | |
| PHC102 | 2020 Fall 1 | Pharmacy Tech I | | Technical aspects of prescription dispensing and drug distribution in the retail and hospital setting utilizing the computer. Bulk compounding, packaging, inventory control, drug storage and a variety of drug delivery systems. Laws that relate to specific technical tasks. | Prerequisites: PHC101 or with Program Manager approval. | | | 120 | |
| PHC102AB | 2020 Fall 1 | Pharmacy Tech II | | Responsibilities of a pharmacy technician specific to working in a hospital and community setting; common drugs and their uses; drug routes of administration; basic biopharmaceutics; billing and reimbursement; sterile and non-sterile compounding; pharmacy career development; introduction to resume building, job search training. | Prerequisites: PHC102 or with Program Manager approval. | CLK | | 128 | |
| PHC107 | 2020 Fall 1 | Math and Dosages | | Principles of household, metric and apothecary measurements, medical symbols and abbreviations. Emphasizes drug dose unit calculations and drug pricing. | Prerequisites: PHC102AB or with Program Manager approval. | CLK | | 90 | |
| PHC114 | 2021 Fall 1 | Pharmacy Tech Externship | | This course will give students hands-on experience with patients, staff, and other | Prerequisites: 1. PHC102AB, PHC107, PHC122, or with | Externship hours are site specific and may require attendance any day of the | CLK | 200 | |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | pharmacy professionals while using their skills and techniques they obtain from the pharmacy program coursework. Students are assigned to the site of an approved pharmacy partner. This will prepare the student for the transition from school to industry, to gain valuable work experience, and to provide an opportunity to network in the workforce. | Program Manager approval. 2. Background check requirements in compliance with the Maricopa County Community College District Supplemental Background Check Policy. 3. Students also must provide a copy of an Arizona Department of Public Safety Level One Fingerprint Clearance Card. Students must maintain current fingerprint clearance throughout the externship(s). 4. Complete and submit the Allied Health Student Health and Safety Documentation Checklist, with included documentation. 5. Students are responsible to meet the requirements of the background check, fingerprint clearance card, and health and safety documentation. | week, including during unscheduled days and times. | | | |
| PHC120 | 2021 Fall 1 | Pharmacology and Pharmacy Technology | | This course is designed to offer incumbent pharmacy technician trainees foundational knowledge in pharmacy history, evolving roles and responsibilities of the pharmacy technician, ethics, and state and national drug laws and regulations in order to prepare for the national certification examination. Students will focus on learning the top 200 prescribed medications, | Prerequisites: Successful completion of RDG100 or higher or appropriate reading placement into CRE101. Successful completion of MAT090, MAT091, MAT092, MAT095, MAT096 or higher, or appropriate math placement into MAT103. | Lab fees for this course include materials such as Pharmaseer, Pharmamath, Personability, online study guide, lab supplies, and a take-home lab kit. | CLK | 230 | |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | pharmaceutical abbreviations, and prescription sig codes. Additionally, students will practice prescription dispensing, adjudication with insurance companies, and medication distribution in retail and hospital pharmacy settings. Students will practice computer skills, bulk compounding, packaging, inventory control, medication storage, and drug delivery systems. Students will practice pharmaceutical math to calculate drug dosing, as well as the principles of household, metric, and apothecary measurements to safely compound sterile and non-sterile medications. | | | | | |
| PHC122 | 2023 Fall | Pharmacy Technician Certification Review | | This course is designed to prepare Pharmacy Technician trainees, incumbent workers, or Pharmacy Technician certificate students for the NHA Exam for the Certification of Pharmacy Technicians (ExCPT) and the PTSB Pharmacy Technician Certification Exam (PTCE), both recognized by the Arizona State Board of Pharmacy. | Prerequisites: A grade of C or better PHC155 or Pharmacy Technician Training License or permission of Department or Division. | Course fees include certification practice exams and first time attempt at the NHA ExCPT certification exam conducted via remote proctoring on location at GWCC campus. | CLK | 24 | |
| PHC150 | 2023 Fall | Introduction to Pharmacy Practice | | This course provides a basic overview of the pharmacy industry to prepare students for an entry level pharmacy technician role. Students will be introduced to the knowledge and skills required for a pharmacy technician including roles and responsibilities, anatomy, physiology and health science, as well as | Prerequisites: 1. Successful completion of RDG100 or higher or appropriate reading placement into CRE101. 2. Successful completion of MAT090, MAT091, MAT092, MAT095, MAT096 or higher, or appropriate math placement into MAT103. | | CLK | 60 | |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | pharmacology, scope of practice and federal laws and regulations. | | | | | |
| PHC153 | 2022 Fall | Basic Pharmacy Practice | | Technical aspects of prescription dispensing and drug distribution in the retail and hospital setting utilizing the computer. Bulk compounding, packaging, inventory control, drug storage and a variety of drug delivery systems. Laws that relate to specific technical tasks. | Prerequisites: A grade of C or better in PHC150. | | CLK | 90 | |
| PHC155 | 2022 Fall | Advanced Pharmacy Practice | | Responsibilities of a pharmacy technician specific to working in a hospital and community setting; common drugs and their uses; drug routes of administration; basic biopharmaceutics; billing and reimbursement; sterile and non-sterile compounding; pharmacy career development; introduction to resume building, job search training. | Prerequisites: A grade of C or better in PHC153. | | CLK | 90 | |
| PHC253 | 2022 Fall | Pharmacy Technician Practicum | | Consists of 160 hours at a clinical site, under the supervision of a pharmacist or senior pharmacy technician. Includes hands-on experience with patients, staff, and other healthcare professionals while applying the knowledge and skills obtained in the pharmacy technician program. Preparation for work experience in a pharmacy setting. | Prerequisites: A grade of C or better in PHC155. | | CLK | 160 | |
| PHI101 | 2011 Fall | Introduction to Philosophy | | General consideration of human nature and the nature of the universe. Knowledge, perception, freedom and determinism, and the existence of God | Prerequisites: None. | Course Attribute(s): General Education Designation: Humanities, Arts and Design - [HU] Arizona Shared Unique Number SUN#: PHI 1101 | Acad | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| PHI103 | 2011 Fall | Introduction to Logic | | Informal logic, logical fallacies, elementary symbolic logic, analysis of argument forms, and construction of proofs for validity | Prerequisites: A grade of C or better in ENG101 or ENG107 or equivalent. | Course Attribute(s): General Education Designation: Humanities, Arts and Design - [HU] General Education Designation: Literacy and Critical Inquiry - [L] Arizona Shared Unique Number SUN#: PHI 1103 | Acad | LEC 3.0 3.0 3.0 | S |
| PHI104 | 2001 Fall | World Philosophy | | Examination of questions such as the meaning of life and death, social justice, appearance and reality, human nature, the identity of the self freedom and destiny, the ethical life, and the relationship of science and religion. Comparative analysis of diverse Eastern and Western viewpoints | Prerequisites: None. | Course Attribute(s): General Education Designation: Global Awareness - [G] General Education Designation: Humanities, Arts and Design - [HU] | Acad | LEC 3.0 3.0 3.0 | S |
| PHI105 | 2013 Summer I | Introduction to Ethics | | A survey of ethical theory in Western Philosophy, including the major normative theories and selected metaethical theories. | Prerequisites: None. | | Acad | LEC 3.0 3.0 3.0 | S |
| PHI201 | 2004 Spring | History of Ancient Philosophy | | Historical survey of the intellectual history of the Greco-Roman world, focusing on the philosophical tradition and social/historical context | Prerequisites: None. | Course Attribute(s): General Education Designation: Historical Awareness - [H] General Education Designation: Humanities, Arts and Design - [HU] | Acad | LEC 3.0 3.0 3.0 | S |
| PHI212 | 2004 Spring | Contemporary Moral Issues | | Philosophical consideration of such moral issues as civil disobedience, preferential treatment, abortion, privacy, sexual morality, and poverty and hunger | Prerequisites: None. | Course Attribute(s): General Education Designation: Humanities, Arts and Design - [HU] | Acad | LEC 3.0 3.0 3.0 | S |
| PHI213 | 2010 Summer I | Medical and Bio-Ethics | | A philosophical consideration of moral problems that arise in relation to medicine and biology, e.g., death, patient's rights and biological experimentation | Prerequisites: None. | Course Attribute(s): General Education Designation: Humanities, Arts and Design - [HU] | Acad | LEC 3.0 3.0 3.0 | S |
| PHI214 | 2023 Summer | Business Ethics | | Philosophical consideration of moral problems arising in business practice, including corporate responsibility, | Prerequisites: A grade of C or better in ENG101 or ENG107 or equivalent. | Course Attribute(s): General Education Designation: Humanities, Arts and Design - [HU] General Education | Acad | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | government regulation, hiring practices, and advertising. Application to both the United States and other countries | | Designation: Literacy and Critical Inquiry - [L] | | | |
| PHI215 | 1995 Fall | Legal Ethics | | Philosophical considerations of moral problems encountered in the law and the legal system by legal professionals and other involved parties | Prerequisites: None. | | Acad | LEC 3.0 3.0 3.0 | S |
| PHI216 | 2014 Summer | Environmental Ethics | | Philosophical consideration of diverse theories and perspectives on the environment, and application of these theories to global moral issues such as animal rights, preservation of wilderness and species, population, world hunger and poverty, and air and water pollution. | Prerequisites: None. | Course Attribute(s): General Education Designation: Humanities, Arts and Design - [HU] | Acad | LEC 3.0 3.0 3.0 | S |
| PHI218 | 2018 Spring | Philosophy of Sexuality | | Philosophical examination of sexuality in human life. Historical and critical survey of philosophical and theological views. Comparison and evaluation of contemporary theories about the nature of sexual desire and sexual acts. Implications of theories for contemporary moral problems. | Prerequisites: A grade of C or better in ENG101 or ENG107 or permission of Instructor. | PHI218 may contain adult content. All students under 18 years old are required to have a signed parental consent form on file, which is on the back of the Students Under The Age of 18 Enrollment Form. Course Attribute(s): General Education Designation: Humanities, Arts and Design - [HU] General Education Designation: Literacy and Critical Inquiry - [L] | Acad | LEC 3.0 3.0 3.0 | S |
| PHI224 | 2017 Spring | Political Philosophy | | Predominant figures and theories in Euroamerican political philosophy from Plato to contemporary social/political philosophers. | Prerequisites: A grade of C or better in ENG101, or ENG107, or permission of Instructor. | Course Attribute(s): General Education Designation: Humanities, Arts and Design - [HU] General Education Designation: Humanities and Fine Arts - [L] | Acad | LEC 3.0 3.0 3.0 | S |
| PHI233AA | 1995 Fall | Metaphysics: An Introduction | | Metaphysical issues which have concerned philosophers from the time of the ancient Greeks until the present; topics selected from the following: the nature and function of metaphysics, | Prerequisites: A grade of C or better in PHI101 or permission of Instructor. | Course Attribute(s): General Education Designation: Humanities, Arts and Design - [HU] | Acad | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | reality, universals, space, time and the infinity, rational theology, the nature of the mind, causation and the nature of things | | | | | |
| PHI233AB | 1995 Fall | Theory of Knowledge | | Epistemological issues which have concerned philosophers from the time of the ancient Greeks until the present. Topics selected from the following: the technical terminology of epistemology, the nature of knowledge, knowledge of past events, knowledge of other minds, and knowledge of physical objects | Prerequisites: A grade of C or better in PHI101 or permission of Instructor. | Course Attribute(s): General Education Designation: Humanities, Arts and Design - [HU] | Acad | LEC 3.0 3.0 3.0 | S |
| PHI233AC | 1994 Fall | Philosophical Psychology | | Philosophical principles and tools used in analyzing the nature of the mind | Prerequisites: A grade of C or better in PHI101 or permission of Instructor. | | Acad | LEC 3.0 3.0 3.0 | S |
| PHI234AA | 1995 Fall | Plato | | The ideas of Plato and Socrates and their impact on western thought | Prerequisites: None. | Course Attribute(s): General Education Designation: Humanities, Arts and Design - [HU] | Acad | LEC 3.0 3.0 3.0 | S |
| PHI244 | 1997 Fall | Philosophy of Religion | REL244 | Religious language, the existence of God, miracles, and human destiny | Prerequisites: None. | Course Attribute(s): General Education Designation: Humanities, Arts and Design - [HU] | Acad | LEC 3.0 3.0 3.0 | S |
| PHI245 | 2004 Spring | Introduction to Eastern Philosophy | | Fundamental theories of Indian and Chinese metaphysics, epistemology, ethics and aesthetics | Prerequisites: None. | Course Attribute(s): General Education Designation: Global Awareness - [G] General Education Designation: Humanities, Arts and Design - [HU] | Acad | LEC 3.0 3.0 3.0 | S |
| PHI250 | 2005 Fall | Ethics in Higher Education | | Philosophical consideration of and diverse perspectives on moral problems that arise in higher education, including academic freedom, hiring practices, diversity, sexual harassment, community responsibilities, stewardship of public trust, intellectual property, and other related issues | Prerequisites: None. | | Acad | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| PHI251 | 2010 Fall | Philosophy of Sport | | General consideration of sport in its philosophical dimensions. Possible topics include the Zen of sport, strategy and competition, sport, practice, and play, and cheating versus fair play | Prerequisites: None. | Course Attribute(s): General Education Designation: Humanities, Arts and Design - [HU] | Acad | LEC 3.0 3.0 3.0 | S |
| PHI282AC | 2008 Summer I | Service Learning Experience in Philosophy | | Service learning field experience within private/public agencies, and citizen volunteer groups. | Prerequisites: A grade of C or better in PHI101 or permission of Instructor. | PHI282AC may be repeated for a total of six (6) PHI282 credit hours; may not repeat specific agency assignment for more than three (3) credit hours. | Acad | LAB 3.0 3.0 0.0 | L |
| PHI296WA | 2023 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor. | | Acad | LAB 1.0 5.0 0.0 | Z |
| PHI296WB | 2023 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest | | Acad | LAB 2.0 10.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | or with permission of the Instructor. | | | | |
| PHI296WC | 2023 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor. | | Acad | LAB 3.0 15.0 0.0 | Z |
| PHI296WD | 2023 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor. | | Acad | LAB 4.0 20.0 0.0 | Z |
| PHI298AA | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type | Prerequisites: Permission of Program Director or Instructor. | | Acad | LAB 1.0 1.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | | | | | |
| PHI298AB | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | Prerequisites: Permission of Program Director or Instructor. | Acad | | LAB 2.0 2.0 0.0 | Z |
| PHI298AC | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | Prerequisites: Permission of Program Director or Instructor. | Acad | | LAB 3.0 3.0 0.0 | Z |
| PHS110 | 2020 Spring | Fundamentals of Physical Science | | Survey of the principles of physics and chemistry. | Prerequisites: A grade of C or better in MAT090 or higher level mathematics course or eligibility for MAT120 or | Course Attribute(s): General Education Designation: Natural Sciences (Quantitative) - [SQ] | Acad | LEC 4.0 3.0 3.0 LAB 0.0 3.0 3.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | higher as indicated by appropriate placement. | | | | |
| PHS115 | 2021 Spring | The Science of Musical Instruments | | A science class set in a musical context where students learn about music, musical instruments, and about the underlying scientific and mathematical principles of sound. | Prerequisites: A grade of C or better in MAT090, or higher level mathematics course, or eligibility for MAT120 or higher as indicated by appropriate placement. | Course Attribute(s): General Education Designation: Natural Sciences (Quantitative) - [SQ] | Acad | LEC 4.0 3.0 3.0 LAB 0.0 3.0 3.0 | T |
| PHS120 | 2018 Fall | Introduction to Physical Science: Astronomy, Meteorology, Geology and Oceanography | | Designed primarily for students with limited background in physical science and mathematics and for nonscience majors. Topics from astronomy, meteorology, geology and oceanography. A laboratory course designed to help the students learn the basic laws and facts of the physical sciences which provide the starting points for scientific thought and speculations. | Prerequisites: None. | Students may not receive credit for both PHS120 and GLG106. Course Attribute(s): General Education Designation: Natural Sciences (Quantitative) - [SQ] | Acad | LEC 4.0 3.0 3.0 LAB 0.0 3.0 3.0 | T |
| PHS298AA | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | Prerequisites: Permission of Program Director or Instructor. | | Acad | LAB 1.0 1.0 0.0 | Z |
| PHS298AB | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and | Prerequisites: Permission of Program Director or Instructor. | | Acad | LAB 2.0 2.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | guidance. Professional-type facilities and equipment are made available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | | | | | |
| PHS298AC | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment are made available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | Prerequisites: Permission of Program Director or Instructor. | | Acad | LAB 3.0 3.0 0.0 | Z |
| PHT104 | 2008 Spring | Pharmacology for Pharmacy Technicians | | Overview of pharmacology for pharmacy technicians. Includes drug conversion factors and dosage calculations as well as disease states and biopharmaceutics | Prerequisites: Permission of Department or Division. | | | LEC 1.0 1.0 1.0 | S |
| PHT109 | 1993 Fall | Drug Actions and Effects | | Drug names, dosage forms, indications, routes of administration and side effects of drugs. Basic anatomy and functions of body systems relevant to most commonly prescribed drugs | Prerequisites: None. | Occ | Occ | LEC 3.0 3.0 3.0 | S |
| PHT120 | 2005 Fall | Pharmacy Technician Responsibilities | | Responsibilities and skills of pharmacy technicians. Emphasis on federal and state laws, prescription entry and fulfillment, drug regulations, and drug calculations, as well as pharmaceutical products, | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | abbreviations, and terminology. Includes inventory management, administration routes, financial issues, and pharmacy environments | | | | | |
| PHT150 | 2022 Fall | Introduction to Pharmacy Practice | | This course provides a basic overview of the pharmacy industry to prepare students for an entry level pharmacy technician role. Students will be introduced to the knowledge and skills required for a pharmacy technician including roles and responsibilities, anatomy, physiology and health science, as well as pharmacology, scope of practice and federal laws and regulations. | Prerequisites: Acceptance into the Pharmacy Technician program. | | Occ | L+L 3.0 4.0 4.0 | T |
| PHT153 | 2022 Fall | Basic Pharmacy Practice | | Technical aspects of prescription dispensing and drug distribution in the retail and hospital setting utilizing the computer. Bulk compounding, packaging, inventory control, drug storage and a variety of drug delivery systems. Laws that relate to specific technical tasks. | Prerequisites: A grade of C or better in PHT150. | | | L+L 5.0 8.0 8.0 | T |
| PHT155 | 2022 Fall | Advanced Pharmacy Practice | | Responsibilities of a pharmacy technician specific to working in a hospital and community setting; common drugs and their uses; drug routes of administration; basic biopharmaceutics; billing and reimbursement; sterile and non-sterile compounding; pharmacy career development; introduction to resume building, job search training. | Prerequisites: A grade of C or better in PHT153. | Occ | | L+L 5.0 8.0 8.0 | T |
| PHT250 | 2022 Fall | Pharmacy Technician Certification Review | | This course is designed to prepare Pharmacy Technician | Prerequisites: A grade of C or better PHT155, | Occ | | LEC 1.0 1.0 1.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | trainees, incumbent workers, or Pharmacy Technician certificate students for the NHA Exam for the Certification of Pharmacy Technicians (ExCPT) and the PTSB Pharmacy Technician Certification Exam (PTCE), both recognized by the Arizona State Board of Pharmacy. | or Pharmacy Technician Training License, or permission of Department or Division. | | | | |
| PHT253 | 2022 Fall | Pharmacy Technician Externship | | Consists of 200 hours at a clinical site, under the supervision of a pharmacist or senior pharmacy technician. Includes hands-on experience with patients, staff, and other healthcare professionals while applying the knowledge and skills obtained in the pharmacy technician program. Preparation for work experience in a pharmacy setting. | Prerequisites: A grade of C or better in PHT155. | | | LAB 2.0 15.0 0.0 | C |
| PHT296WA | 2002 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor. | Occ<br><br>Occ | | LAB 1.0 5.0 0.0 | Z |
| PHT296WB | 2002 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 | | | LAB 2.0 10.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | related to the career objectives of the students. COMMON COMPETENCY COURSE | grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor. | | | | |
| PHT296WC | 2002 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor. | | Occ | LAB 3.0 15.0 0.0 | Z |
| PHT296WD | 2002 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one | Occ | | LAB 4.0 20.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | class which is related to students major or career interest or with permission of Instructor. | | | | |
| PHT298AA | 2023 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. | Prerequisites: Permission of Program Director or Instructor. | Occ | | LAB 1.0 1.0 0.0 | Z |
| PHT298AB | 2023 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. | Prerequisites: Permission of Program Director or Instructor. | Occ | | LAB 2.0 2.0 0.0 | Z |
| PHT298AC | 2023 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and | Prerequisites: Permission of Program Director or Instructor. | | | LAB 3.0 3.0 0.0 | Z |



Occ

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | individualized learning to be combined to maximize student development. | | | | | |
| PHY101 | 2020 Spring | Introduction to Physics | | A survey of physics emphasizing applications of physics to modern life. | Prerequisites: A grade of C or better in MAT090 or higher level mathematics course or eligibility for MAT120 or higher as indicated by appropriate placement. | Students may receive credit for only one of the following: PHY101 or PHY101AA. Course Attribute(s): General Education Designation: Natural Sciences (Quantitative) - [SQ] | Acad | LEC 4.0 3.0 3.0 LAB 0.0 3.0 3.0 | T |
| PHY101AA | 2020 Spring | Introduction to Physics | | A survey of physics emphasizing applications of physics to modern life. | Prerequisites: A grade of C or better in MAT090 or higher level mathematics course or eligibility for MAT120 or higher as indicated by appropriate placement. | Students may receive credit for only one of the following: PHY101 or PHY101AA Course Attribute(s): General Education Designation: Natural Sciences (Quantitative) - [SQ] | Acad | LEC 5.0 4.0 4.0 LAB 0.0 3.0 3.0 | T |
| PHY111 | 2020 Spring | General Physics I | | Includes motion, energy, and properties of matter. | Prerequisites: A grade of C or better in MAT182 or MAT187 or MAT220 or MAT221 or eligibility for MAT220 as indicated by appropriate placement or one year high school Trigonometry with a grade of C or better or permission of Department or Division. | PHY111 is recommended for preprofessional and suggested for certain other majors. Students may receive credit for only one of the following: PHY111 or PHY111AA. Course Attribute(s): General Education Designation: Natural Sciences (Quantitative) - [SQ] Arizona Shared Unique Number SUN# PHY1111 | Acad | LEC 4.0 3.0 3.0 LAB 0.0 3.0 3.0 | T |
| PHY111AA | 2020 Spring | General Physics I | | Includes motion, energy, and properties of matter. | Prerequisites: A grade of C or better in MAT182 or MAT187 or MAT220 or MAT221 or eligibility for MAT220 as indicated by appropriate placement or one year high school Trigonometry with a grade of C or better or permission of Department or Division. | Recommended for preprofessional and suggested for certain other majors. Students may receive credit for only one of the following: PHY111 or PHY111AA. Course Attribute(s): General Education Designation: Natural Sciences (Quantitative) - [SQ] | Acad | LEC 5.0 4.0 4.0 LAB 0.0 3.0 3.0 | T |
| PHY112 | 2018 Fall | General Physics II | | Includes electricity, electromagnetism, and modern physics. | Prerequisites: A grade of C or better in PHY111. | Course Attribute(s): General Education Designation: Natural Sciences (Quantitative) - [SQ] Arizona Shared Unique Number SUN#: PHY 1112 | Acad | LEC 4.0 3.0 3.0 LAB 0.0 3.0 3.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| PHY115 | 2018 Fall | University Physics I | | General physics course using calculus to develop the principles of mechanics and thermodynamics. Recommended for majors in the sciences and mathematics. Required for Engineering majors. | Prerequisites: A grade of C or better in MAT220 or MAT221 or permission of Department or Division. Corequisites: MAT230 or MAT231. One year of High School physics or PHY111 and PHY112 is strongly recommended. | Course Attribute(s): General Education Designation: Natural Sciences (Quantitative) - [SQ] | Acad | LEC 5.0 4.0 4.0 LAB 0.0 3.0 3.0 | T |
| PHY116 | 2019 Fall | University Physics II | | Principles of electricity, magnetism, waves, and optics. Required for Engineering majors. | A grade of C or better required in all Prerequisites. Prerequisites: (MAT230 or MAT231) and PHY115. Prerequisite or Corequisites: MAT240 or MAT241 or permission of Instructor. | Course Attribute(s): General Education Designation: Natural Sciences (Quantitative) - [SQ] | Acad | LEC 5.0 4.0 4.0 LAB 0.0 3.0 3.0 | T |
| PHY118 | 2018 Fall | Explorations in Science Teaching | | General overview of the profession of the science educator with a look at student, teachers, curricula, and classroom techniques. Includes discussion of theory, pedagogy, and practice of teaching physical science. Available curricula will be reviewed for their alignment with the state and national standards. Includes guided practice with designing and teaching inquiry-based science lessons for K-12 classrooms. | Prerequisites: None. | The State of Arizona requires fingerprint clearance cards for all students engaged in a classroom field experience. PHY118 requires additional practicum hours in K-12 schools outside of scheduled class time. To avoid any delay, students should begin the fingerprint clearance process prior to the start of the classes. | Acad | L+L 1.0 2.0 2.0 | T |
| PHY121 | 2018 Fall | University Physics I: Mechanics | | Kinematics, Newton's laws, work, energy, momentum, conservation laws, dynamics of particles, solids, fluids, mechanical waves, and sound. | Prerequisites: A grade of C or better in MAT220 or MAT221 or permission of Department or Division. One year of High School physics or PHY111 and PHY112 suggested but not required. | Course Attribute(s): General Education Designation: Natural Sciences (Quantitative) - [SQ] Arizona Shared Unique Number SUN#: PHY 1121 | Acad | LEC 4.0 3.0 3.0 LAB 0.0 3.0 3.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| PHY131 | 2018 Fall | University Physics II: Electricity and Magnetism | | Electric charge and current, electric and magnetic fields in vacuum and in materials, and induction. AC circuits, displacement current, and electromagnetic waves. | Prerequisites: A grade of C or better in MAT230 or MAT231 or permission of Department or Division and PHY121. Corequisites: MAT241 or permission of Department or Division. | Course Attribute(s): General Education Designation: Natural Sciences (Quantitative) - [SQ] Arizona Shared Unique Number SUN#: PHY 1131 | Acad | LEC 4.0 3.0 3.0 LAB 0.0 3.0 3.0 | T |
| PHY195AA | 2018 Fall | Principles and Practice of Scientific Research | | Students will learn the use of the scientific method; how, why and where research is conducted; the ethical protocol in the scientific process; how peer review works, and how to formulate scientifically testable hypotheses and design supporting experiments. Students will apply the scientific method in laboratory and/or field research projects, will learn and use appropriate laboratory techniques, and will communicate research design, data collection, and data interpretation in conventional scientific formats. | Prerequisites: A grade of C or better in PHY121 or permission of Instructor. | PHY195AA may be repeated for credit. | Acad | L+L 1.0 2.0 2.0 | T |
| PHY195AB | 2018 Fall | Principles and Practice of Scientific Research | | Students will learn the use of the scientific method; how, why and where research is conducted; the ethical protocol in the scientific process; how peer review works, and how to formulate scientifically testable hypotheses and design supporting experiments. Students will apply the scientific method in laboratory and/or field research projects, will learn and use appropriate laboratory techniques, and will communicate research design, data collection, and data interpretation in | Prerequisites: A grade of C or better in PHY121 or permission of Instructor. | PHY195AB may be repeated for credit. | Acad | L+L 2.0 4.0 4.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | conventional scientific formats. | | | | | |
| PHY195AC | 2018 Fall | Principles and Practice of Scientific Research | | Students will learn the use of the scientific method; how, why and where research is conducted; the ethical protocol in the scientific process; how peer review works, and how to formulate scientifically testable hypotheses and design supporting experiments. Students will apply the scientific method in laboratory and/or field research projects, will learn and use appropriate laboratory techniques, and will communicate research design, data collection, and data interpretation in conventional scientific formats. | Prerequisites: A grade of C or better in PHY121 or permission of Instructor. | PHY195AC may be repeated for credit. | Acad | L+L 3.0 6.0 6.0 | T |
| PHY241 | 2019 Fall | University Physics III: Thermodynamics, Optics, and Wave Phenomena | | Heat, entropy, and laws of thermodynamics; wave propagation; geometrical and physical optics; introduction to special relativity. | Prerequisites: A grade of C or better in PHY116 or PHY131 or permission of Instructor. | | Acad | LEC 4.0 3.0 3.0 LAB 0.0 3.0 3.0 | T |
| PHY282AA | 2014 Summer | Service-Learning Experience in Physical Science | | Unpaid Service-Learning (SL) experience, completed with approved community partner. | Prerequisites: Permission of Instructor. | PHY282AA may be repeated for a total of six (6) credit hours. Standard grading available according to procedures outlined in catalog. | Acad | LAB 1.0 1.0 0.0 | L |
| PHY282AB | 2014 Summer | Service-Learning Experience in Physical Science | | Unpaid Service-Learning (SL) experience, completed with approved community partner. | Prerequisites: Permission of Instructor. | PHY282AB may be repeated for a total of six (6) credit hours. Standard grading available according to procedures outlined in catalog. | Acad | LAB 2.0 2.0 0.0 | L |
| PHY282AC | 2014 Summer | Service-Learning Experience in Physical Science | | Unpaid Service-Learning (SL) experience, completed with approved community partner. | Prerequisites: Permission of Instructor. | PHY282AC may be repeated for a total of six (6) credit hours. Standard grading available according to procedures outlined in catalog. | Acad | LAB 3.0 3.0 0.0 | L |
| PHY285 | 2018 Fall | Introduction to Astrodynamics | AST285 ECE285 | Introduction to celestial mechanics and the dynamics of spacecraft navigation. Introduction to rocket propulsion and spacecraft | Prerequisites: A grade of C or better in ENG101 and (PHY115 or PHY121). | | Acad | LEC 4.0 3.0 3.0 LAB 0.0 3.0 3.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | design. Orbital and interplanetary celestial mechanics and maneuvers. Astrophysics and characteristics of the space environment. Lab is project-based, utilizing a real-time spacecraft simulation environment. | | | | | |
| PHY294 | 2010 Fall | Special Topics in Physics | | Conceptual, experimental, and computational aspects of a special topic in physics. | Prerequisites: Permission of Department or Division. | PHY294 may be repeated for credit. | Acad | LEC 3.0 3.0 3.0 | S |
| PHY294AA | 2010 Fall | Special Topics in Physics | | Conceptual, experimental, and computational aspects of a special topic in physics. | Prerequisites: Permission of Department or Division. | PHY294AA may be repeated for credit. | Acad | LEC 2.0 2.0 2.0 | S |
| PHY294AB | 2010 Fall | Special Topics in Physics | | Conceptual, experimental, and computational aspects of a special topic in physics. | Prerequisites: Permission of Department or Division. | PHY294AB may be repeated for credit. | Acad | LEC 1.0 1.0 1.0 | S |
| PHY294AC | 2010 Fall | Special Topics in Physics | | Conceptual, experimental, and computational aspects of a special topic in physics. | Prerequisites: Permission of Department or Division. | PHY294AC may be repeated for credit. | Acad | LEC 0.5 0.5 0.5 | S |
| PHY298AA | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | Prerequisites: Permission of Program Director or Instructor. | | Acad | LAB 1.0 1.0 0.0 | Z |
| PHY298AB | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment | Prerequisites: Permission of Program Director or Instructor. | | Acad | LAB 2.0 2.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | | | | | |
| PHY298AC | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | Prerequisites: Permission of Program Director or Instructor. | | Acad | LAB 3.0 3.0 0.0 | Z |
| PIM115 | 1995 Fall | Beginning Pima Conversation I | | Conversational Pima. Basic sentence structure, pronunciation, and vocabulary necessary to develop speaking ability in Pima. Designed to develop speaking and listening abilities, with little emphasis on grammar | Prerequisites: None. | | Acad | LEC 3.0 3.0 3.0 | S |
| PIM116 | 2014 Fall | Beginning Pima Conversation II | | Reviews basic Pima vocabulary, pronunciation, and sentence structure. Designed to develop speaking, listening, and writing skills in O'Odham for effective communication in Pima. | Prerequisites: A grade of C or better in NAV201 or permission of Department or Division. Completion of prerequisites within the last three years is required. | | | LEC 3.0 3.0 3.0 | S |
| PLB109 | 2023 Fall | Phlebotomy: Basic Skills | | Theory and practice of basic phlebotomy including laboratory test codes, equipment, and procedures. | Prerequisites: (Acceptance into the Laboratory Assisting or Phlebotomy program or permission of Instructor) and permission of Program Director. | Acad | | L+L 2.0 4.0 4.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| PLB110 | 2017 Fall | Practicum: Fundamental Phlebotomy Skills | | Application of fundamental phlebotomy techniques in a clinical laboratory setting or health care environment. | Prerequisites: A grade of C or better in PLB109 and submit to a drug screening and demonstrate negative results and acceptance into the Medical Assisting or Phlebotomy program or permission of Program Director. | PLB110 may be repeated for credit. | Occ | LAB 0.5 3.0 0.0 | C |
| PLB110AA | 2015 Fall | Practicum: Basic Phlebotomy: Training for Law Enforcement Officers | | Application of basic phlebotomy techniques in a clinical laboratory setting or health care environment for law enforcement purposes. | Prerequisites: Certified Law Enforcement Officer or permission of Program Director. Corequisites: PLB109. | | Occ | LAB 2.0 6.0 0.0 | C |
| PLB111 | 2018 Fall | Specimen Processing and Advanced Techniques in Phlebotomy Procedures | | Theory and practice of advanced techniques in phlebotomy and specimen processing including laboratory test codes, equipment, and procedures. | Prerequisites: A grade of C or better in PLB109 and permission of Program Director. | | Occ | L+L 2.0 4.0 4.0 | T |
| PLB112 | 2017 Fall | Practicum: Specialized Phlebotomy Techniques | | Application of specialized phlebotomy techniques in a clinical laboratory setting or health-care environment. | Prerequisites: A grade of C or better in PLB109 and PLB110. Corequisites: PLB111 and PLB121, or permission of Program Director. | | | LAB 0.5 3.0 0.0 | C |
| PLB114 | 2020 Spring | Refresher Course for Phlebotomists | | Review of phlebotomy theory and practices including equipment, procedures, and special considerations. Reinforces and updates basic skills and competencies of phlebotomy techniques for individuals who have not worked in the field for between 6 months and 24 months and for those who have completed a formal structured phlebotomy training program but have not worked in the field. | Prerequisites: (Must provide proof of 2 years employment as a phlebotomist within the last 4 years or completion of a formal structured phlebotomy training program within the last 2 years with proof of a minimum of 100 successful venipunctures) and permission of Program Director. | PLB114 may be repeated for credit.<br><br>Occ | Occ | L+L 1.0 1.0 1.0 | T |
| PLB115 | 2018 Fall | Developmental Skills for Law Enforcement Phlebotomy | | Provides an update for specific law enforcement phlebotomy. Includes | Prerequisites: Permission of Program Director. | PLB115 may be repeated for credit. | Occ | L+L 1.0 1.0 1.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | phlebotomy theory and practices including equipment, procedures, and special considerations of phlebotomy techniques. | | | | | |
| PLB121 | 2014 Fall | Practicum: Basic Specimen Processing | | Application of specimen processing techniques in a clinical laboratory setting or health care environment. | Prerequisites: A grade of C or better in PLB109 and PLB110. Corequisites: PLB111 and PLB112 or permission of Program Director. | PLB121 supports Medical Assisting program completers seeking the Certificate of Completion in Phlebotomy and requires formal acceptance into the program. | Occ | LAB 2.0 8.0 0.0 | C |
| PLB122 | 2014 Fall | Practicum: Phlebotomy and Specimen Processing | | Application of phlebotomy and specimen processing techniques in a clinical laboratory setting or health care environment. | Prerequisites: A grade of C or better in PLB109 or permission of Program Director. Prerequisites: A grade of C or better in PLB111 or Corequisites: PLB111 or permission of Program Director. | | Occ | LAB 3.0 12.0 0.0 | C |
| PLB250 | 2020 Spring | Phlebotomy Program Review | | Provides review of phlebotomy theory fundamental knowledge, and advanced concepts required for phlebotomy national certification examinations. Topics include anatomy and physiology, specimen collection, specimen processing and handling, non-blood specimens, and laboratory operations related to phlebotomy. | Prerequisites: (A grade of C or better in PLB122 or current employment with a minimum of one (1) year experience as a phlebotomist) and permission of Program Director. | PLB250 may be repeated for credit. | Occ | LEC 1.0 1.0 1.0 | S |
| PLB280 | 2015 Fall | Quality Assurance for Phlebotomy | | Components, tests, and procedures for evaluation of phlebotomy to assure consistency in the collection, processing, and analysis process. | Prerequisites: Current employment in a law enforcement agency with a minimum of one (1) year of experience as a law enforcement phlebotomist or permission of Instructor. | PLB280 may be repeated for credit. | Occ | LEC 3.0 3.0 3.0 | S |
| PLC109 | 2021 Fall 1 | Phlebotomy Basic Skills | | Theory and practice of basic phlebotomy including laboratory test codes, equipment, and procedures. | Prerequisites: Admission into the Phlebotomy program. Successful completion | | | 90 | |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | of RDG100 or higher or appropriate reading placement into CRE101. | | | | |
| PLC111 | 2020 Fall 1 | Specimen Processing and Advanced Techniques in Phlebotomy | | Theory and practice of advanced techniques in phlebotomy and specimen processing including laboratory test codes, equipment, and procedures. | Prerequisites: PLC109 or with Program Manager approval. | | | 90 | |
| PLC113 | 2021 Fall | Law Enforcement Phlebotomy | | Theory and practice of basic Phlebotomy including laboratory test codes, equipment, and procedures. The course also includes introduction to case law specific to Law Enforcement Phlebotomists, chain of custody, courtroom testimony and specific draw considerations for operating in the field. | Prerequisites: Admission to Program or approval from the Program Manager. Corequisites: PLC113AB: Law Enforcement Phlebotomy Practicum. | CLK | CLK | 56 | |
| PLC113AB | 2021 Fall | Law Enforcement Phlebotomy Practicum | | Application of basic Phlebotomy techniques in a clinical or field setting for Law Enforcement purposes during an onsite 3-day, face-to-face lab. Each day will consist of 8 hours of hands-on training and practical application of Law Enforcement Phlebotomy skills and fundamentals. | Prerequisites: Admission to Program or approval from the Program Manager. Corequisites: PLC113 Law Enforcement Phlebotomy. | | CLK | 24 | |
| PLC116 | 2021 Fall | Law Enforcement Phlebotomy Refresher Course | | Provides an update on theory and practices of Law Enforcement Phlebotomy including equipment, anatomy and physiology, safety guidelines, and practical application of blood collection and specimen handling procedures. | Prerequisites: Department Sponsored Law Enforcement Personnel with prior completion of the Law Enforcement Phlebotomy Program and/or equivalent, or permission from the Program Manager. | | CLK | 24 | |
| PLC122 | 2022 Fall | Phlebotomy Practicum | | Application of phlebotomy and specimen processing techniques in a clinical | Prerequisites: 1. PLC111 or with Program Manager approval. 2. | | | 120 | |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | laboratory setting or health care environment. | Background check requirements in compliance with the Maricopa County Community College District Supplemental Background Check policy. 3. Students also must provide a copy of an Arizona Department of Public Safety Level One Fingerprint Clearance Card. Students must maintain current fingerprint clearance throughout the externship(s). 4. Complete and submit the Allied Health Student Health and Safety Documentation Checklist, with included documentation 5. Students are responsible to meet the requirements of the background check, fingerprint clearance card, and health and safety documentation. | | | | |
| PLG124 | 2020 Fall 1 | Plumbing: Pipes and Fittings | | This course introduces the various types of plumbing materials, pipe schedules and material properties, and applications of piping. Trainees will learn how to determine the appropriate types of fittings, valves, hangers, and supports needed for piping jobs. Trainees will learn to properly measure, cut, prep, and join piping. | Prerequisites: None. | | CLK | 81 | |
| PLG125 | 2020 Fall 1 | Plumbing: Fixtures | | This course introduces commonly used fixtures in plumbing systems. Students | Prerequisites: None. | | CLK | 61 | |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | will select and operate each type of fixture for a variety of installations. The course provides an overview of plumbing system installation, maintenance and water heating systems. | | | | | |
| PLG126 | 2020 Fall 1 | Plumbing: Drain, Waste, and Vent | | This course addresses drainage, waste movement and ventilation for construction application. Course provides instruction in locating, installing, connecting, and testing a complete drain, waste, and vent (DWV) system. | Prerequisites: None. | | CLK | 81 | |
| PLG127 | 2020 Fall 1 | Plumbing: Water Distribution Systems | | This course discusses the processes through which potable water is distributed. Students will learn to identify the components and functions of a water distribution system and explain the relationships among the components. The course also includes installation and testing of water distribution systems. | Prerequisites: None. | | CLK | 61 | |
| PLG224 | 2020 Fall 1 | Plumbing: Pipe Systems and Controls | | This course covers applied calculations to determine size, types and service of pipe systems. Course also includes the application of drawings, codes, and specifications for assembly and installation of gas, air, and water systems. | Prerequisites: None. | | CLK | 81 | |
| PLG225 | 2020 Fall 1 | Plumbing: Water Disposal Systems | | Course covers water disposal and drainage systems, to include the types, components, functions, codes, safety, design, installation and repair. | Prerequisites: None. | | CLK | 102 | |
| PLG226 | 2020 Fall 1 | Plumbing: Fixtures and Appliances | | Course covers the safety, codes, installation, maintenance, and repair of appliances, fixtures, and gas piping. | Prerequisites: None. | | CLK | 81 | |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| PLG227 | 2020 Fall 1 | Plumbing: Water Resource Solutions | | Course introduces water supply disinfection, filtration systems, and sustainable water practices. | Prerequisites: None. | | CLK | 40 | |
| PME190 | 2020 Fall | Introduction to ECG Rhythm Analysis and Interpretation for EMS Professionals | | Designed to provide an overview of the anatomy and physiology of the cardiovascular system and electrophysiology of the cardiac conduction system for Emergency Medical Service (EMS) professionals. Basic electrocardiograph (ECG) multi-lead acquisition, analysis, and interpretation of various dysrhythmias and cardiovascular conditions. | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| PME191 | 2020 Fall | Introduction to Pharmacology for EMS Professionals | | Designed to provide an overview of the principles of pharmacology and pharmacologic agents utilized in patient management plans. Includes pharmacokinetics, pharmacodynamics, physiology of pharmacology, calculating drug dosages, and drug profiles. | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| PME201 | 2020 Fall | Advanced Cardiac Life Support (ACLS) Initial Provider in Paramedicine | | Designed to provide the knowledge and skills needed to recognize and manage cardiopulmonary arrest, acute dysrhythmia, stroke, and acute coronary syndromes according to current emergency cardiovascular care (ECC) guidelines. Integrates knowledge of basic electrocardiographic rhythm interpretation, pharmacologic agents, and other interventions used in advanced cardiac life support. | Prerequisites: Admission into the Paramedic Education Program. | Occ | | L+L 1.0 2.0 2.0 | T |
| PME202 | 2020 Fall | Pediatric Advanced Life Support (PALS) Initial Provider in Paramedicine | | Designed to provide the knowledge and skills needed to recognize and manage an infant, child or adolescent in | Prerequisites: Admission into the Paramedic Education Program. | | | L+L 1.0 1.5 1.5 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | respiratory compromise, circulatory compromise, or cardiopulmonary arrest according to current Pediatric Advanced Life Support (PALS) and emergency cardiovascular care (ECC) guidelines. Integrates knowledge of basic electrocardiographic rhythm interpretation, pharmacologic agents, and other interventions used in pediatric emergencies. | | | | | |
| PME203 | 2020 Fall | Pediatric Emergencies for Prehospital Professionals (PEPP) Initial Provider in Paramedicine | | Designed to provide the knowledge and skills needed to recognize and manage an infant, child or adolescent in respiratory compromise, circulatory compromise, or cardiopulmonary arrest according to current Pediatric Emergencies for Prehospital Professionals (PEPP) and emergency cardiovascular care (ECC) guidelines. Integrates knowledge of basic electrocardiographic rhythm interpretation, pharmacologic agents, and other interventions used in pediatric emergencies. | Prerequisites: Admission into the Paramedic Education Program. | | Occ | L+L 1.0 1.5 1.5 | T |
| PME204 | 2020 Fall | Neonatal Resuscitation Provider (NRP) in Paramedicine | | Designed to provide the knowledge and skills needed to recognize and manage a neonate with respiratory compromise, circulatory compromise, or cardiopulmonary arrest according to current American Academy of Pediatrics (AAP) and emergency cardiovascular care (ECC) guidelines. Integrates knowledge of basic electrocardiographic rhythm | Prerequisites: Admission into the Paramedic Education Program. | | Occ | L+L 0.5 1.5 1.5 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | interpretation, pharmacologic agents, and other interventions used in neonatal resuscitation. | | | | | |
| PME205 | 2020 Fall | Advanced Medical Life Support (AMLS) Initial Provider in Paramedicine | | Designed to provide the knowledge and skills needed to recognize and manage various medical conditions according to the National Association of EMTs (NAEMT) Advanced Medical Life Support (AMLS) guidelines. Skills are sequenced and synthesized into simulations. | Prerequisites: Admission into the Paramedic Education Program. | | | L+L 1.0 1.5 1.5 | T |
| PME206 | 2020 Fall | International Trauma Life Support (ITLS) Provider/Pre-Hospital Trauma Life Support (PHTLS) | | Designed to provide the knowledge and skills needed to recognize and manage various trauma conditions and environmental injuries according to the International Trauma Life Support (ITLS) or Provider/ Pre-Hospital Trauma Life Support (PHTLS) guidelines. Skills are sequenced and synthesized into simulations. | Prerequisites: Admission into the Paramedic Education Program. | Occ | | L+L 1.0 1.5 1.5 | T |
| PME211 | 2020 Fall | Advanced Cardiac Life Support (ACLS) Refresher | | Designed to meet Advanced Cardiac Life Support (ACLS) refresher requirements for the healthcare provider who initiates, directs, or participates in the management of cardiopulmonary arrest and other cardiovascular emergencies according to current cardiopulmonary resuscitation and emergency cardiovascular care guidelines. Provides the healthcare provider with the knowledge and skills needed to recognize and manage cardiopulmonary arrest, acute dysrhythmia, stroke, and acute coronary syndromes | Prerequisites: None. | PME211 may be repeated for credit. Occ | Occ | L+L 0.5 1.0 1.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | according to current emergency cardiovascular care (ECC) guidelines. Integrates knowledge of basic electrocardiographic rhythm interpretation, pharmacologic agents, and other interventions used in advanced cardiac life support. | | | | | |
| PME212 | 2020 Fall | Pediatric Advanced Life Support (PALS) Refresher | | Designed to meet Pediatric Advanced Life Support (PALS) refresher requirements for the healthcare provider who initiates, directs, or participates in the management of an infant, child or adolescent in respiratory compromise, circulatory compromise, or cardiopulmonary arrest according to current emergency cardiovascular care (ECC) guidelines. Integrates knowledge of basic electrocardiographic rhythm interpretation, pharmacologic agents, and other interventions used in pediatric emergencies. | Prerequisites: None. | PME212 may be repeated for credit. | Occ | L+L 0.5 1.0 1.0 | T |
| PME213 | 2020 Fall | Pediatric Emergencies for Prehospital Professionals (PEPP) Refresher | | Designed to meet Pediatric Emergencies for Prehospital Professions (PEPP) refresher requirements for the healthcare provider who initiates, directs, or participates in the management of an infant, child or adolescent in respiratory compromise, circulatory compromise, or cardiopulmonary arrest according to current PEPP and emergency cardiovascular care (ECC) guidelines. Integrates | Prerequisites: None. | PME213 may be repeated for credit. | Occ | L+L 0.5 1.0 1.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | knowledge of basic electrocardiographic rhythm interpretation, pharmacologic agents, and other interventions used in pediatric emergencies. | | | | | |
| PME215 | 2020 Fall | Advanced Medical Life Support (AMLS) Refresher | | Designed to meet the National Association of EMTs (NAEMT) Advanced Medical Life Support (AMLS) refresher requirements for the healthcare provider who performs assessment and management of the most common medical crises in patients. Skills are sequenced and synthesized into simulations. | Prerequisites: None. | PME215 may be repeated for credit. | Occ | L+L 0.5 1.0 1.0 | T |
| PME216 | 2020 Fall | International Trauma Life Support (ITLS)/Pre-Hospital Trauma Life Support (PHTLS) Refresher | | Designed to meet International Trauma Life Support (ITLS) or Pre-Hospital Trauma Life Support (PHTLS) refresher requirements for the healthcare provider who performs assessment and management of various trauma conditions and environmental injuries. Skills are sequenced and synthesized into simulations. | Prerequisites: None. | PME216 may be repeated for credit. | Occ | L+L 0.5 1.0 1.0 | T |
| PME221 | 2020 Fall | Basic Level and Advanced Level Skills Course for the EMS Instructor and Examiner | | Designed to provide an overview of the roles and responsibilities of basic level and advanced level instructors and examiners. Includes instructional strategies and methodologies, methods of evaluation, documentation of skill competency, and management strategies of emergency medical services (EMS) programmatic, state, and national scope of practice basic level and advanced level skills stations. | Prerequisites: None. | PME221 may be repeated for credit. | Occ | LEC 2.0 2.0 2.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| PME222 | 2020 Fall | Advanced Cardiac Life Support (ACLS) Instructor Preparation | | Designed to prepare Advanced Cardiac Life Support (ACLS) instructor candidates to deliver American Heart Association (AHA) instructor-led and blended learning courses. Provides an overview of the roles and responsibilities of the ACLS instructor. Includes instructional considerations, methods of evaluation, documentation of ACLS student skill competency, and ACLS Course management according to AHA guidelines. | Prerequisites: None. | PME222 may be repeated for credit. | Occ | LEC 2.0 2.0 2.0 | S |
| PME223 | 2020 Fall | Pediatric Advanced Life Support (PALS) Instructor Preparation | | Designed to prepare Pediatric Advanced Life Support (PALS) instructor candidates to deliver American Heart Association (AHA) instructor-led and blended learning courses. Provides an overview of the roles and responsibilities of the PALS instructor. Includes instructional considerations, methods of evaluation, documentation of PALS student skill competency, and PALS Course management according to AHA guidelines. | Prerequisites: None. | PME223 may be repeated for credit. | Occ | LEC 2.0 2.0 2.0 | S |
| PME240 | 2020 Fall | Pharmacology in Paramedicine | | Designed to provide an overview of the pathophysiologic principles of pharmacology, pharmacologic agents in the Paramedic scope of practice, and the practice of medication administration. Develops psychomotor skills in the paramedic scope of practice through sequenced lab simulations. Prepares students to integrate comprehensive knowledge of | Prerequisites: Admission into the Paramedic Education Program. | | Occ | L+L 3.0 5.0 5.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | the pathophysiologic principles of pharmacology and pharmacologic agents to formulate a differential diagnosis and to implement a management plan for medical emergencies and trauma. | | | | | |
| PME245 | 2020 Fall | Airway and Ventilatory Management in Paramedicine | | Designed to prepare students to integrate knowledge of the respiratory system, comprehensive assessment practices, and pharmacologic agents to formulate a differential diagnosis and implement airway and ventilatory management plans for medical emergencies and trauma. Develops psychomotor skills in the paramedic scope of practice through sequenced lab simulations. Prepares students to perform comprehensive assessment and techniques in the paramedic scope of practice for assuring airway patency, adequate mechanical ventilation, and respiration for all age groups. | Prerequisites: Admission into the Paramedic Education Program. | | Occ | L+L 3.0 4.0 4.0 | T |
| PME250 | 2020 Fall | Comprehensive Patient Assessment in Paramedicine | | Designed to provide an overview of comprehensive patient assessment. Develops psychomotor skills in the paramedic scope of practice. Integrates the pathophysiological significance of comprehensive assessment findings to formulate a differential diagnosis and implement a management plan for medical emergencies and trauma. | Prerequisites: Admission into the Paramedic Education Program. | | Occ | L+L 1.0 3.0 3.0 | T |
| PME251 | 2020 Fall | Medical Emergencies in Paramedicine I | | Designed to provide an overview of pathophysiologic principles, epidemiology, | Prerequisites: Admission into the | | | L+L 4.0 8.0 8.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | comprehensive assessment, differential diagnosis, and pharmacology for respiratory and cardiovascular emergencies. Develops psychomotor skills in the paramedic scope of practice through sequenced lab simulations. Prepares students to implement a management plan in the Paramedic scope of practice for respiratory and cardiovascular emergencies. | Paramedic Education Program. | | | | |
| PME252 | 2020 Fall | Medical Emergencies in Paramedicine II | | Designed to provide an overview of pathophysiologic principles, epidemiology, comprehensive assessment, differential diagnosis, and pharmacology for various medical emergencies. Develops psychomotor skills in the paramedic scope of practice through sequenced lab simulations. Prepares students to implement a management plan in the Paramedic scope of practice for various medical emergencies. | Prerequisites: Admission into the Paramedic Education Program. | | Occ | L+L 4.0 6.0 6.0 | T |
| PME253 | 2020 Fall | Medical Emergencies in Paramedicine III | | Designed to provide an overview of pathophysiologic principles, epidemiology, comprehensive assessment, differential diagnosis, and pharmacology for various medical conditions. Develops psychomotor skills in the paramedic scope of practice through sequenced lab simulations. Prepares students to implement a management plan in the Paramedic scope of practice for gynecologic, obstetric, pediatric, and geriatric | Prerequisites: Admission into the Paramedic Education Program. | | Occ | L+L 4.0 4.0 4.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | emergencies, neonatal care, and patients with special challenges. | | | | | |
| PME254 | 2020 Fall | Technical Operations in Paramedicine | | Designed to provide an overview of transport operations, incident management, multi-casualty incidents, extrication, special rescue, hazardous materials incidents, terrorism incidents, and disaster response. Examines the Paramedic's operational roles and responsibilities. | Prerequisites: Admission into the Paramedic Education Program. | | Occ | L+L 2.5 3.0 3.0 | T |
| PME260 | 2020 Fall | Trauma Patient Management in Paramedicine | | Designed to provide an overview of pathophysiologic principles, epidemiology, comprehensive assessment, differential diagnosis, and pharmacology for various trauma conditions. Develops psychomotor skills in the paramedic scope of practice through sequenced lab simulations. Prepares students to implement a management plan in the Paramedic scope of practice for hemorrhage, soft tissue trauma, burns, face and neck trauma, head and spine trauma, chest trauma, abdominal and genitourinary trauma, orthopedic trauma, and environmental emergencies. | Prerequisites: Admission into the Paramedic Education Program. | | Occ | L+L 2.0 2.0 2.0 | T |
| PME270 | 2020 Fall | Immersive Total Patient Management Experience (ITPME) | | Designed to provide immersive-simulated live patient interactive out-of-hospital scenarios. This course creates an environment which facilitates incident stress inoculation and interdisciplinary collaboration. | Prerequisites: Admission into the Paramedic Education Program. | | Occ | L+L 2.0 2.0 2.0 | T |
| PME280 | 2020 Fall | Preparation for Paramedicine Practicum | | Designed to provide an overview of Emergency | Prerequisites: Admission into the | | | LEC 1.0 1.0 1.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Medical Service (EMS) systems, safety and wellness, resiliency, health, medical/legal and ethical issues, EMS communications, documentation, and crime scene awareness. Examines the Paramedic's roles and responsibilities to assure personal, patient, and public health and safety in the provision of professional emergency care. | Paramedic Education Program. | | | | |
| PME281 | 2020 Fall | Paramedicine Clinical Practicum: Comprehensive | | Designed as the precepted Paramedicine clinical practicum in which the student synthesizes standard of care and scope of practice with comprehensive assessment and diagnostic technology, patient advocacy, ethical and professional behaviors, critical thinking, decision-making, and patient management of medical emergencies and trauma in a clinical setting. | Prerequisites: Admission into the Paramedic Education Program. | | | L+L 2.0 15.0 15.0 | T |
| PME281AA | 2020 Fall | Paramedicine Clinical Practicum: Phase I | | Designed as the precepted Paramedicine clinical practicum in which the student synthesizes standard of care and scope of practice with comprehensive assessment and diagnostic technology, patient advocacy, ethical and professional behaviors, critical thinking, decision-making, and patient management of medical emergencies and trauma in a clinical setting. | Prerequisites: Admission into the Paramedic Education Program. | Occ | | L+L 1.0 7.5 7.5 | T |
| PME281AB | 2020 Fall | Paramedicine Clinical Practicum: Phase II | | Designed as the precepted Paramedicine clinical practicum in which the student synthesizes standard of care and scope of practice with comprehensive assessment and diagnostic technology, | Prerequisites: Admission into the Paramedic Education Program. | Occ | | L+L 1.0 7.5 7.5 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | patient advocacy, ethical and professional behaviors, critical thinking, decision-making, and patient management of medical emergencies and trauma in a clinical setting. | | | | | |
| PME288 | 2020 Fall | Paramedicine Comprehensive Field Internship Practicum | | Designed as the precepted Paramedicine field internship in which the student synthesizes standard of care and scope of practice with comprehensive assessment and diagnostic technology, patient advocacy, ethical and professional behavior, critical thinking, decision-making, and patient management of medical emergencies and trauma in the out-of-hospital setting. | Prerequisites: Admission into the Paramedic Education Program. | | Occ | L+L 5.0 34.0 34.0 | T |
| PME289 | 2020 Fall | Preparation for Paramedic National Credentialing | | Designed to provide preparation for the national cognitive and psychomotor examinations, and other credentials required for national and state Paramedic certification/licensure. | Prerequisites: Admission into the Paramedic Education Program. | | Occ | L+L 2.0 3.0 3.0 | T |
| PME290 | 2020 Fall | Advanced Life Support (ALS) Refresher | | Designed to provide a refresher of Advanced Life Support (ALS) to meet national and Arizona Department of Health Services Bureau of Emergency Services and Trauma System (AzDHS/BEMSTS) requirements for Paramedicine recertification. | Prerequisites: None. | PME290 may be repeated for credit. | Occ | L+L 1.0 1.0 1.0 | T |
| PME291 | 2020 Fall | Community Health Paramedicine | | Designed as the capstone Community Health Paramedicine experience in which the student synthesizes standard of care and expanded scope of practice with comprehensive assessment, diagnostic | Prerequisites: None. | PME291 may be repeated for credit. | Occ | L+L 8.0 11.0 11.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | technology, patient advocacy, ethical and professional behaviors, to practice patient-centered evidence-based paramedicine in the community setting. | | | | | |
| PME292 | 2020 Fall | Critical Care Paramedicine | | Designed as the capstone Critical Care Paramedicine experience in which the student synthesizes standard of care and expanded scope of practice with comprehensive assessment, diagnostic technology, patient advocacy, ethical and professional behaviors, to practice patient-centered evidence based paramedicine in the clinical, out-of-hospital, and inter-facility transport settings. | Prerequisites: None. | | Occ | L+L 8.0<br>11.0<br>11.0 | T |
| PME293 | 2020 Fall | Tactical Emergency Casualty Care (TECC) | | Designed to provide strategies, skills, and simulations to decrease preventable death in the prehospital unstable environment according to National Association of EMTs (NAEMT) and Tactical Emergency Casualty Care (TECC) guidelines. Strategies include integration of rapid patient assessment with trauma patient management in tactical and hazardous environments. Promotes a common approach for the transition of rescue to patient care while limiting the risk of further casualties. Examines the impact of tactical and environmental factors on trauma patient management. | Prerequisites: None. | PME293 may be repeated for credit. | Occ | L+L 2.5<br>2.5 2.5 | T |
| PME298AA | 2020 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured | Prerequisites: Permission of Program Director or Instructor. | | Occ | LAB 1.0<br>1.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. | | | | | |
| PME298AB | 2020 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. | Prerequisites: Permission of Program Director or Instructor. | Occ | | LAB 2.0 2.0 0.0 | Z |
| PME298AC | 2020 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. | Prerequisites: Permission of Program Director or Instructor. | Occ | | LAB 3.0 3.0 0.0 | Z |
| PMP120 | 2023 Fall | Massage Therapy Basics | | A massage basics course covering: sanitation, hygiene, safety, contraindications, ethics, healthy therapeutic | Prerequisites: Admission into the Massage Therapy program. | | | 175 | |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | relationships, professional communication, overview of the human body (integumentary, muscular, and skeletal systems), healthcare terminology, muscle theory, client care, self-care, and Swedish massage. | | | | | |
| PMP121 | 2023 Fall | Massage Therapy Advanced | | Advanced anatomy and massage, focusing in greater detail on the skeletal and muscular components and manipulations of the body. Students are taught all the bones and muscles of the body and introduced to the kinesiology that develops from their interactions. Deep tissue, Thai massage, and reflexology are introduced. Recently learned skills will be practiced on the public during clinic with coaching. | Prerequisites: PMP120 or Program Manager's permission. | | CLK | 175 | |
| PMP220 | 2023 Fall | Massage Therapy Mastery I | | An advanced anatomy and massage course focusing in detail on the skeletal and muscular components and manipulations of the upper body. Students will review the bones and muscles of the upper body and the kinesiology that develops from their interactions. Corresponding deep-tissue massage for the upper body is taught in conjunction with the advanced anatomy to ensure its practical application. Integration of deep tissue, Thai massage, myofascial, and structural massage are emphasized. Subjective, Objective, Assessment, Plan (S.O.A.P.) notes are introduced. The course concludes with two weeks of | Prerequisites: PMP121 or Program Manager's permission. | | CLK | 175 | |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | supervised clinic with coaching. | | | | | |
| PMP221 | 2023 Fall | Massage Therapy Mastery II | | An advanced anatomy and massage course focusing in detail on the skeletal and muscular components and manipulations of the lower body. Students will review all of the bones and muscles of the lower body and the kinesiology that develops from their interactions. Corresponding deep-tissue massage for the lower body is taught in conjunction with the advanced anatomy to ensure its practical application. Students combine all of their program skills, integrating anatomy, kinesiology, concepts, theories, and techniques to properly assess clients and apply critical thinking in tailoring treatments to individuals with documentation. Clients with unique needs are covered such as athletes, expecting mothers, infants, older adults, obese individuals, people with disabilities, and end of life care. Persons with common injuries and conditions are also covered, teaching specific strategies and protocols to address them. Entrepreneurial skills conducive to the industry of massage therapy will continue to be reinforced while an exit plan is created for the student's entrance into the industry. The course concludes with two weeks of supervised clinic with coaching to gain practical | Prerequisites: PMP220 or Program Manager's permission. | | CLK | 175 | |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | experience working on the general public and applying the assessment/treatment approaches focused on in the course. | | | | | |
| PNT101 | 2014 Summer | Introduction to Painting-Decorating Trade | | Orientation to the trade, apprentice responsibilities and professionalism, communication skills and workplace behavior. Tools and equipment used in the trade. Preparation and application procedures of various types of surfaces, utilizing various types of materials used in the trade. | Prerequisites: Registered apprentice status or permission of the Apprenticeship Coordinator. | | Occ | L+L 4.0 4.0 4.0 | A |
| PNT102 | 2014 Summer | Surface Preparation and Cleaning | | Overview of surface preparation and cleaning, emphasis on materials, coating applications, various surface finishes, and safety procedures. Causes of paint failures and remedies. Also preparation procedures of plaster drywall, masonry and metal. Residential and commercial applications. | Prerequisites: Registered apprentice status or permission of the Apprenticeship Coordinator. | | Occ | L+L 4.0 4.0 4.0 | A |
| PNT104 | 2018 Fall | Wood and Decorative Finishes | | Wood and decorative finishing techniques including glazing, antiquing, wood graining and marbelizing. Sanding techniques of hardwoods and softwoods including fillers, sealers, stains and finishes. | Prerequisites: Registered apprentice status or permission of the Apprenticeship Coordinator. | | Occ | L+L 2.0 2.0 2.0 | T |
| PNT105 | 2014 Summer | Painting and Drywalling Orientation | | Overview of the painting and drywalling labor history, workplace performance, green construction, work place issues and sexual harassment. | Prerequisites: Registered apprentice status or permission of the Apprenticeship Coordinator. | | Occ | LEC 1.0 1.0 1.0 | S |
| PNT106 | 2018 Fall | Health and Safety for Drywall Finishers | | Purpose and limitation of Material Safety Data Sheet (MSDS). Occupational Safety and Health Administration (OSHA). Common safety and fall hazards. Requirements for | Registered apprentice status or permission of the Apprenticeship Coordinator. | | Occ | L+L 3.0 3.0 3.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | erecting and dismantling scaffolds. | | | | | |
| PNT107 | 2018 Fall | Introduction to the Drywall Trade | | Basic terminology and tools used in the drywall trade. Exhibiting professionalism in the trade in appearance, dealing with difficult customers, following workplace protocol and procedure. | Registered apprentice status or permission of the Apprenticeship Coordinator. | | Occ | L+L 2.0 2.0 2.0 | T |
| PNT108 | 2018 Fall | Materials of the Drywall Trade | | Characteristics of drywall panels, types of fillers and proper lighting requirements. Surface preparation, ventilation and materials handling. | Prerequisites: Registered apprentice status or permission of the Apprenticeship Coordinator. | | Occ | L+L 2.0 2.0 2.0 | T |
| PNT109 | 2018 Fall | Tools of the Drywall Trade | | Selection, use, maintenance and safety procedures for common tools of the drywall trade. | Prerequisites: Registered apprentice status or permission of the Apprenticeship Coordinator. | | Occ | L+L 2.0 2.0 2.0 | T |
| PNT118 | 2018 Fall | OSHA Standards and Regulations | ABC118 | Provisions of and implementation of Occupational Safety and Health Administration (OSHA) Act in the work place. Rights and responsibilities under the OSHA Act. Appeals process, record keeping, and voluntary protection programs. OSHA's construction and general industry standards. Overview of the requirements of the more frequently referenced standards. | Prerequisites: Registered apprentice status or permission of the Apprenticeship Coordinator. | | Occ | L+L 1.5 1.5 1.5 | T |
| PNT120 | 2020 Fall | Basic Calculations for Construction | ABC120 MEC120 | Addition, subtraction, multiplication and division of whole, decimal, fraction and metric numbers. Percentage and fraction conversions. Metric units of length, weight, volume and temperature. Metric system as it relates to the construction trade. Basic algebra and geometry operations and equations. | Prerequisites: None. | | Occ | L+L 1.5 1.5 1.5 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Area and volume calculations of shapes. | | | | | |
| PNT121 | 2014 Fall | Introduction to Hand and Power Tools | ABC121 MEC121 | Overview of the use, maintenance and safety procedures for common hand and power tools. | Prerequisites: Registered apprentice status or permission of the Apprenticeship Coordinator. | | Occ | LEC 1.0 1.0 1.0 | S |
| PNT123 | 2022 Fall | Introduction to Blueprints | | Basic concepts of blueprints, including terms and symbols, grid line systems and blueprint production techniques. Dimensions and blueprint reading | Prerequisites: Registered apprentice status or permission of the Apprenticeship Coordinator. | | Occ | LEC 1.0 1.0 1.0 | S |
| PNT150 | 2014 Fall | Construction Foreman | IND150 | Examine the basic supervisory and leadership concepts and skills needed to manage a construction project. Includes basic theories of motivation, role of communications in construction project management,decision making process, planning and organizing, strategies, developing production schedules to control production, discussing accident prevention and loss control | Prerequisites: None. | | Occ | LEC 2.0 2.0 2.0 | S |
| PNT201 | 2018 Fall | Coverings and Blasting | | Application, installation, and estimating procedures for wallcoverings including abrasive and wet blasting guidelines and systems. | Prerequisites: Registered apprentice status or permission of the Apprenticeship Coordinator. | | Occ | L+L 2.0 2.0 2.0 | T |
| PNT202 | 2014 Summer | Spray Painting | | Operating and maintenance procedures for spray painting equipment and materials. Use of specialized painting systems and equipment. Application procedures for special coatings and parking lots. | Prerequisites: Registered apprentice status or permission of the Apprenticeship Coordinator. | | Occ | L+L 3.0 3.0 3.0 | A |
| PNT203 | 2018 Fall | Non-Spray Application of Coatings | | Best practices in the application of stain, clear coat, and wood finish application on wood substrates. | Prerequisites: Registered apprentice status or permission of the Apprenticeship Coordinator. | | Occ | L+L 3.0 3.0 3.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| PNT205 | 2018 Fall | Paints, Coatings and Materials | | Coating products and solvent type and compatibility following Product Data Sheet and Material Safety Data Sheet for products. Including common failures, causes and corrections, weatherization, properties and functions of paints or coatings. | Prerequisites: Registered apprentice status or permission of the Apprenticeship Coordinator. | | Occ | L+L 2.0 2.0 2.0 | T |
| PNT208 | 2018 Fall | Filling, Taping and Sanding Applications | | Characteristics of fillers, filling compounds, drying times. Taping techniques including taping and wiping procedures, tools and equipment. Functions and operations of boxes and fasteners as well as sanding application and bead and trim installation. | Prerequisites: Registered apprentice status or permission of the Apprenticeship Coordinator. | | Occ | L+L 4.0 4.0 4.0 | T |
| PNT209 | 2018 Fall | Automatic Taping Tools of the Drywall Trade | | Inspection and maintenance procedures for keeping automatic taping tools in proper working condition. | Prerequisites: Registered apprentice status or permission of the Apprenticeship Coordinator. | | Occ | L+L 3.0 3.0 3.0 | T |
| PNT210 | 2018 Fall | Advanced Drywall Applications and Systems | | Methods for making repairs, mixing procedures, and recognizing common defects in drywall finishing and wallboards. General texture spraying techniques and basics of Exterior Insulated and Finish Systems (EIFS) and Expanded Polystyrene (EPS). | Prerequisites: Registered apprentice status or permission of the Apprenticeship Coordinator. | | Occ | L+L 3.0 3.0 3.0 | T |
| PNT296WA | 2002 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently | | Occ | LAB 1.0 5.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | enrolled in at least one class which is related to students major or career interest or with permission of Instructor. | | | | |
| PNT296WB | 2002 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor. | | Occ | LAB 2.0 10.0 0.0 | Z |
| PNT296WC | 2002 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor. | | Occ | LAB 3.0 15.0 0.0 | Z |
| PNT296WD | 2002 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average | | | LAB 4.0 20.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | objectives of the students. COMMON COMPETENCY COURSE | and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor. | | | | |
| PNT298AA | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | Prerequisites: Permission of Program Director or Instructor. | | Occ | LAB 1.0 1.0 0.0 | Z |
| PNT298AB | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | Prerequisites: Permission of Program Director or Instructor. | | Occ | LAB 2.0 2.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| PNT298AC | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | Prerequisites: Permission of Program Director or Instructor. | | Occ | LAB 3.0 3.0 0.0 | Z |
| PON105 | 2018 Fall | Surgical Technology for the Operating Room Nurse | | Direct observation of principles and culture of operating room. Traffic patterns, aseptic techniques, roles, professional surgical team work, case management, perioperative record, instrument handling, safety precautions with regard to exposure, surgical attire, surgical regimen and chain of command. | Acceptance into the Surgical Technology for the Operating Room Nurse Program, or permission of Department or Division. | | | L+L 2.0 2.0 2.0 | T |
| PON210 | 2016 Spring | PeriOperative Principles I | | Role and responsibilities of the professional nurse in the perioperative setting. Team concepts, patient care, nursing process and impact of quality assurance. Role of Association of Operating Room Nurse Standards of Practice. | Prerequisites: Acceptance into the Surgical Technology for the Operating Room Nurse program or permission of Department or Division. Corequisites: PON214. | Occ | | LEC 3.0 3.0 3.0 | S |
| PON212 | 2016 Spring | PeriOperative Principles II | | Common pathogenic organisms and methods of sanitation/sterilization. Instruments, procedures intervention measures related to the operating room. State and Federal regulating agencies. Moral and ethical issues. | Prerequisites: A grade of C or better in PON210 or permission of Department or Division. Corequisites: PON214. | Occ | | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| PON214 | 2018 Fall | PeriOperative Laboratory | | Practical application of perioperative nursing. Aseptic technique. Scrubbing, gowning, gloving, instrumentation, and maintenance of a sterile field. Accountability emphasized. | Prerequisites: Acceptance into the Surgical Technology for Operating Room Nurse Program. Corequisites: PON210 and PON212. | | | LAB 4.0 9.5 9.5 | T |
| PON218 | 2016 Spring | PeriOperative Clinical Practice I | | Application of the nursing process in care of surgical patients during the perioperative period. Statements of competency established by the Association of Operating Room Nurses. | Prerequisites: A grade of C or better in PON214. | Occ | | LAB 3.0 15.0 0.0 | C |
| PON220 | 2011 Fall | PeriOperative Clinical Practice II | | Application of the nursing process in care of surgical patients during the perioperative period. Statements of competency established by the Association of Operating Room Nurses. | Prerequisites: A grade of C or better in PON214 or permission of Department or Division. | Occ | | LAB 3.0 15.0 0.0 | C |
| PON230 | 2018 Fall | Surgical Technology Materials Update | SGT230 | Current surgical technology materials. Surgical specialty modifications, introductions, technology. Specific uses, handling, application to surgical procedures. | Prerequisites: Currently enrolled in Surgical Technology or Surgical Technology for the Operating Room Nurse program, or Certified Surgical Technologist, or permission of Program Director. | Occ | | LEC 2.0 2.0 2.0 LAB 1.0 3.0 3.0 | T |
| PON296WA | 2002 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or | Occ Occ | | LAB 1.0 5.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | career interest or with permission of Instructor. | | | | |
| PON296WB | 2002 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor. | | Occ | LAB 2.0 10.0 0.0 | Z |
| PON296WC | 2002 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor. | | Occ | LAB 3.0 15.0 0.0 | Z |
| PON296WD | 2002 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or | | Occ | LAB 4.0 20.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor. | | | | |
| PON298AA | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | Prerequisites: Permission of Program Director or Instructor. | Occ | | LAB 1.0 1.0 0.0 | Z |
| PON298AB | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | Prerequisites: Permission of Program Director or Instructor. | Occ | | LAB 2.0 2.0 0.0 | Z |
| PON298AC | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of | Prerequisites: Permission of Program Director or Instructor. | | | LAB 3.0 3.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | | | | | |
| POR101 | 2018 Fall | Elementary Portuguese I | | Basic grammar, pronunciation, and vocabulary of the Portuguese language. Includes study of Lusophone culture. Practice in listening, speaking, reading, and writing skills | Prerequisites: None. | | Acad | L+L 5.0 6.0 6.0 | T |
| POR102 | 2018 Fall | Elementary Portuguese II | | Continued study of basic grammar, pronunciation, and vocabulary of the Portuguese language. Includes study of Lusophone cultures and practice in listening, speaking, reading and writing skills | Prerequisites: A grade of C or better in POR101 or permission of Department or Division. Completion of prerequisites within the last three years is required. | | | L+L 5.0 6.0 6.0 | T |
| POR201 | 2016 Spring | Intermediate Portuguese I | | Review of essential grammar of the Portuguese language and study of the Portuguese cultures. A continued practice and development of reading, writing, and speaking skills. Emphasis on both fluency and accuracy in the spoken language. | Prerequisites: A grade of C or better in POR102 or permission of the Department or Division. Completion of prerequisites within the last three years is required. | Acad | | LEC 5.0 6.0 5.7 | S |
| POR296WA | 2023 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) | Acad | Acad | LAB 1.0 5.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor. | | | | |
| POR296WB | 2023 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor. | | Acad | LAB 2.0 10.0 0.0 | Z |
| POR296WC | 2023 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor. | | Acad | LAB 3.0 15.0 0.0 | Z |
| POR296WD | 2023 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of | Prerequisites: Completion of at least | | | LAB 4.0 20.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | educators and employers to accomplish an outcome related to the career objectives of the students. | twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor. | | | | |
| POR298AA | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | Prerequisites: Permission of Program Director or Instructor. | Acad | | LAB 1.0 1.0 0.0 | Z |
| POR298AB | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student | Prerequisites: Permission of Program Director or Instructor. | Acad | | LAB 2.0 2.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | development. COMMON COMPETENCY COURSE | | | | | |
| POR298AC | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | Prerequisites: Permission of Program Director or Instructor. | ' | Acad | LAB 3.0 3.0 0.0 | Z |
| POS100 | 1994 Fall | Introduction to Political Science | | Introduction to the discipline of political science and its relation to other disciplines with emphasis on the major philosophies and institutions of government. | Prerequisites: None. | Course Attribute(s): General Education Designation: Social and Behavioral Sciences - [SB] | Acad | LEC 3.0 3.0 3.0 | S |
| POS101 | 1996 Spring | Current Issues | | Introduction to current issues in politics, economics, social relations, foreign affairs. Presentations by local, state and national civic and cultural leaders. | Prerequisites: None. | POS101 may be repeated for a total of two (2) credit hours. | Acad | LEC 1.0 1.0 1.0 | S |
| POS110 | 2023 Fall | American National Government | | Study of the historical backgrounds, governing principles, and institutions of the national government of the United States. | Prerequisites: None. | Arizona Shared Unique Number SUN#: POS 1110 | Acad | LEC 3.0 3.0 3.0 | S |
| POS113 | 2016 Fall | United States and Arizona Social Studies | GCU113 | Overview of government, history, and geography of the United States and Arizona. Includes the relationship of government to the United States economic system as well as the influences and developments that have shaped U.S. and Arizona history. Also covers | Prerequisites: None. | | Acad | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | geographical systems, regions, and study techniques. | | | | | |
| POS114 | 2017 Fall | World Social Studies | | Introduction to the world from the integrated social science perspectives of history, geography, and government. | Prerequisites: None. | Course Attribute(s): General Education Designation: Global Awareness - [G] General Education Designation: Historical Awareness - [H] General Education Designation: Social-Behavioral Sciences - [SB] | Acad | LEC 3.0 3.0 3.0 | S |
| POS115 | 2001 Fall | Issues in American Politics | | Examination of major issues in current affairs in the fields of politics, economics, social relations, foreign affairs, aesthetics, and others through the reading and viewing of secondary information sources | Prerequisites: A grade of C or better in ENG101 or ENG107 or equivalent. | Course Attribute(s): General Education Designation: Literacy and Critical Inquiry - [L] General Education Designation: Social and Behavioral Sciences - [SB] | Acad | LEC 3.0 3.0 3.0 | S |
| POS120 | 2011 Fall | World Politics | | Introduction to the principles and issues relating to the study of international relations. Evaluation of the political, economic, national, and transnational rationale for international interactions | Prerequisites: None. | Course Attribute(s): General Education Designation: Global Awareness - [G] General Education Designation: Social and Behavioral Sciences - [SB] Arizona Shared Unique Number SUN#: POS 1120 | Acad | LEC 3.0 3.0 3.0 | S |
| POS125 | 1995 Fall | Issues in World Politics | | Contemporary issues and factors in international relations. Stress conditions in civil order, trade, and international institutions. | Prerequisites: None. | POS125 may be repeated for a total of six (6) credit hours. Course Attribute(s): General Education Designation: Global Awareness - [G] General Education Designation: Social and Behavioral Sciences - [SB] | Acad | LEC 3.0 3.0 3.0 | S |
| POS130 | 2017 Fall | State and Local Government | | Survey of state and local government in the United States. Special attention on Arizona State government. | Prerequisites: None. | Course Attribute(s): General Education Designation: Social and Behavioral Sciences - [SB] | Acad | LEC 3.0 3.0 3.0 | S |
| POS140 | 2011 Fall | Comparative Government | | Overview and evaluation of the sub-field of comparative politics. Covers various national governments from around the world: their structure, system, method of governance. Examines methods of assessing these governments | Prerequisites: None. | Course Attribute(s): General Education Designation: Global Awareness - [G] General Education Designation: Social and Behavioral Sciences - [SB] Arizona Shared Unique Number SUN#: POS 2204 | Acad | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| POS180 | 2018 Fall | United Nations Studies | | Historical origins, structural makeup, political and operational characteristics, and legal activities of the United Nations. Analysis of the overall institution's ongoing utility, productivity and creativity. | Prerequisites: None. | Course Attribute(s): General Education Designation: Global Awareness - [G] | Acad | L+L 3.0 3.0 3.0 | T |
| POS210 | 2019 Summer | Political Ideologies | | Leading political ideas and belief systems, e.g., Marxism, liberalism, conservatism, theories of democracy, and alternative futures. | Prerequisites: None. | | Acad | LEC 3.0 3.0 3.0 | S |
| POS220 | 1994 Fall | U.S. and Arizona Constitution | | Examination of the United States Constitution and the constitution and government of the State of Arizona. | Prerequisites: None. | Students may not enroll in POS220 and POS222 concurrently. | Acad | LEC 3.0 3.0 3.0 | S |
| POS221 | 1993 Fall | Arizona Constitution | | Examination of the Constitution of the State of Arizona. Equivalent to the second part of POS220. May not enroll in POS220 and POS221 concurrently | Prerequisites: None. | | Acad | LEC 1.0 1.0 1.0 | S |
| POS222 | 1994 Fall | U.S. Constitution | | Examination of the United States Constitution. Equivalent to the first part of POS220. | Prerequisites: None. | Students may not enroll in POS220 and POS222 concurrently. | Acad | LEC 2.0 2.0 2.0 | S |
| POS223 | 2019 Summer | Civil Rights and Liberties | | The historic background and current status of major civil rights and civil liberties issues in the United States. | Prerequisites: None. | | Acad | LEC 3.0 3.0 3.0 | S |
| POS281AB | 2013 Spring | Public Policy/Service Internship | | Field experience in community service, public policy or public service. | Prerequisites: Minimum of 15 credit hours at college granting internship with minimum GPA of 3.0 and permission of Instructor. | POS281AB may be repeated for a total of nine (9) credit hours; may not repeat specific internship assignment. | Acad | LAB 3.0 3.0 0.0 | L |
| POS282AA | 1993 Fall | Volunteerism for Political Science: A Service Learning Experience | | Service-learning field experience within government agencies, political organizations, citizen advocacy groups, and human service organizations/agency. | Prerequisites: Permission of Instructor. | POS282AA may be repeated for a total of four (4) credit hours; may not repeat specific agency assignment for more than two (2) credit hours. Standard grading available according to procedures outlined in catalog | Acad | LAB 1.0 1.0 0.0 | L |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| POS282AB | 1993 Fall | Volunteerism for Political Science: A Service Learning Experience | | Service-learning field experience within government agencies, political organizations, citizen advocacy groups, and human service organizations/agency. | Prerequisites: Permission of Instructor. | POS282AB may be repeated for a total of four (4) credit hours; may not repeat specific agency assignment for more than two (2) credit hours. Standard grading available according to procedures outlined in catalog. | Acad | LAB 2.0 2.0 0.0 | L |
| POS282AC | 2004 Spring | Volunteerism for Political Science: A Service Learning Experience | | Service-learning field experience within government agencies, political organizations, citizen advocacy groups, and human service organizations/agency. | Prerequisites: Permission of Instructor. | POS282AC may be repeated for a total of four (4) POS282 credit hours; may not repeat specific agency assignment for more than two (2) credit hours. Standard grading available according to procedures outlined in catalog. | Acad | LAB 3.0 3.0 0.0 | L |
| POS285 | 2018 Fall | Political Issues and Public Policy | | Introduction to public policy, how policy is made, and how public policy decisions are affected. | Prerequisites: None. | Course Attribute(s): General Education Designation: Social and Behavioral Sciences - [SB] | Acad | L+L 3.0 3.0 3.0 | T |
| POS296WA | 2023 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor. | | Acad | LAB 1.0 5.0 0.0 | Z |
| POS296WB | 2023 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or | | Acad | LAB 2.0 10.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor. | | | | |
| POS296WC | 2023 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor. | | Acad | LAB 3.0 15.0 0.0 | Z |
| POS296WD | 2023 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor. | | Acad | LAB 4.0 20.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| POS298AA | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | Prerequisites: Permission of Program Director or Instructor. | | Acad | LAB 1.0 1.0 0.0 | Z |
| POS298AB | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | Prerequisites: Permission of Program Director or Instructor. | | Acad | LAB 2.0 2.0 0.0 | Z |
| POS298AC | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student | Prerequisites: Permission of Program Director or Instructor. | | Acad | LAB 3.0 3.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | development. COMMON COMPETENCY COURSE | | | | | |
| PPT101 | 2003 Fall | Hand and Power Tools | | Identification and use of hand and hand-held power tools used in a power plant. Tool construction and purpose. Maintenance of hand and power tools | Prerequisites: None. | | Occ | LEC 1.0 1.0 1.0 | S |
| PPT103 | 2003 Fall | Print Reading and Plant Drawings | | Introduction to print reading and plant drawings. Flow diagrams and symbols on drawings. Dimension, tolerance and clearance on drawings. Amendments to drawings. Specific types of drawings. Proper procedures when using plant drawings | Prerequisites: None. | | Occ | LEC 1.0 1.0 1.0 | S |
| PPT107 | 2003 Fall | Lubrication | | Principles, properties, and safe handling requirements of lubricants. Lubrication of bearings, lubrication systems, and system components. Oil settling systems. Construction, operation, and maintenance of oil purifiers | Prerequisites: None. | | Occ | LEC 1.0 1.0 1.0 | S |
| PPT108 | 2003 Fall | Turbines | | Operations, steam properties, energy transfer, parts, and types of turbines. Components and function. Turbine maintenance for oil and hydraulic systems, inspection of casings, nozzles and rotors. Turbine alignment and the tightening of joints using appropriate tools and equipment | Prerequisites: None. | | Occ | LEC 1.0 1.0 1.0 | S |
| PPT112 | 2003 Fall | Principles of Machining | | Safety practices, machining methods, and principles of material removal. Types of cutting tools, lathe, milling, drill, and bandsaw components. Principles of operation of specific machines found in the machine shop including turning, milling, drilling and cutting machines | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| PPT114 | 2003 Fall | Drive and Gear Components | | Terminology, identification and inspection of the component parts of a drive and gear system. Operation, maintenance and inspection of couplings, clutches, brakes, belt drives, chain drives, shafts and gears. Operation and configurations of variable speed drives | Prerequisites: None. | | Occ | LEC 1.0 1.0 1.0 | S |
| PPT115 | 2003 Fall | Hydraulics and Pneumatics | | Hydraulic and pneumatic safety, physical concepts, and fluid laws. Hydraulic and pneumatic system components and operation. Troubleshooting procedures of hydraulic and pneumatic systems | Prerequisites: None. | | Occ | LEC 2.0 2.0 2.0 | S |
| PPT117 | 2021 Fall | Forklift Operations | | Safe and proper operation of forklift. Parts and function of forklift, principles of operation, and safety precautions. Inspection procedures, proper care, and industry standards. On-hands operation of a forklift | Prerequisites: None. | | Occ | LEC 1.0 1.0 1.0 | S |
| PPT118 | 2003 Fall | Conduct of Maintenance | | Safety and management expectations. Defense in Depth strategy and Conduct of Verifications. Maintenance procedures. Work control process. Performance of work standards and documentation including pre-job preparation, pre-job notification, job review, job verification and job close out specific to nuclear power plant operations | Prerequisites: None. | | Occ | LEC 1.0 1.0 1.0 | S |
| PPT119 | 2003 Fall | Instrument Air Compressor Maintenance | | Purpose, function, and identification of system drawings. Identification of major components. Instrument air compressor components and function. Air flow operations. Free air unloader components and function. | Prerequisites: None. | | Occ | LEC 2.0 2.0 2.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Fluids and flow paths. Compressor cooling water and lubricating oil. Inspection and repair of parts. Troubleshooting | | | | | |
| PPT120 | 2012 Summer I | Energy Industry Fundamentals | | Various types of energy and their conversion to useable energy such as electrical power. How generated electrical power is transmitted and distributed to the point of use. | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| PPT121 | 2019 Fall | Power Plant Components | | Theory, construction and application of basic power plant mechanical components. Basic concepts of electrical fundamentals and electronics discussed. | Prerequisites: None. | | Occ | L+L 3.0 3.0 3.0 | T |
| PPT124 | 2019 Fall | Power Systems Components I | | Principles, properties, and safe handling requirements of lubricants. Lubrication of bearings, lubrication systems, and system components. Oil settling systems. Construction, operation, and maintenance of oil purifiers. Terminology, identification and inspection of the component parts of a drive and gear system. Application, inspection, maintenance, and failure modes of plant bearings. Design and operation of sliding and anti-friction bearings and seals. | Prerequisites: None. | PPT124 may be repeated for credit. | Occ | L+L 3.0 3.0 3.0 | T |
| PPT126 | 2019 Fall | Power Systems Components II | | Functional components of turbines, including parts, steam properties and maintenance of oil and hydraulic systems. Heat exchanger theory, including types, operations, and maintenance of heat transfer systems. Operational principles of pneumatic and hydraulic valve actuators, including modulation control | Prerequisites: None. | PPT126 may be repeated for credit. | Occ | L+L 3.0 3.0 3.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | terminology and inspection testing. | | | | | |
| PPT128 | 2019 Fall | Power Systems Components III | | Hydraulic and pneumatic safety, physical concepts, and fluid laws. Hydraulic and pneumatic system components and operation. Troubleshooting procedures of hydraulic and pneumatic systems. Mechanical component types and characteristics, common failure mechanisms, and operating principles of plant components. | Prerequisites: None. | PPT128 may be repeated for credit. | Occ | L+L 3.0 3.0 3.0 | T |
| PPT170 | 2020 Summer | Instrumentation and Process Control | | Principles and practices of instrumentation and process control systems used in industry. Topics cover the proper installation, troubleshooting, repair, and maintenance of various industrial process instrumentation (temperature, pressure, level, flow, etc.) and control circuits. | Prerequisites: A grade of C or better in college-level math course, or appropriate District placement, or permission of Department/Division Chair. | | | LEC 3.0 3.0 3.0 | S |
| PPT202 | 2018 Fall | Power Plant Systems I | | Components and function of reactor coolant, volume control, safety injection, and nuclear sampling systems. Function and operation of main steam and turbine systems, main and auxiliary feedwater systems, pressurizer, control rod drive, and recirculation systems. Operation and function of steam and heater drain systems. Reactor plant safety concepts. | Prerequisites: A grade of C or better in PPT120 and PPT121, or permission of Program Director. | Course Attribute(s): General Education Designation: Historical Awareness - [H] General Education Designation: Humanities, Arts and Design - [HU] | Occ | LEC 3.0 3.0 3.0 | S |
| PPT203 | 2018 Fall | Power Plant Systems II | | Advanced plant systems. Water, electrical and cooling systems. Safe shutdown cooling water system. Waste drain system. Fuel handling and storage systems. Fuel | Prerequisites: A grade of C or better in PPT120 and PPT121, or permission of Program Director. | | | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | pool cooling and cleanup. Purpose and operation of radioactive waste management. Service air and gas systems. Ventilation and fire protection systems. Containment, Containment Spray, Emergency Core Cooling, Emergency Power, Environmental Monitoring, Off-gas, Post-accident, Radiation Monitoring, Residual Heat Removal, and Suppression Pool systems. | | | | | |
| PPT204 | 2003 Fall | Measuring and Test Equipment | | Administrative controls for precision measurement. Use of precision measuring equipment. Emphasis on proper use, accurate reading, and calculations using precision measuring devices | Prerequisites: None. | | Occ | LEC 1.0 1.0 1.0 | S |
| PPT205 | 2003 Fall | Rigging | | Safe and proper operation of lifting equipment. Weight calculations. Identification and proper location of rigging equipment. Hand signals and industry standards. Safe rigging practices. Inspection and maintenance procedures. Operation of pendant cranes | Prerequisites: None. | | Occ | LEC 2.0 2.0 2.0 | S |
| PPT206 | 2003 Fall | Bearings | | Application, inspection and maintenance of plant bearings. Design and operation of sliding and anti-friction bearings. Function, design and applications of bearing seals. Reasons for bearing failure and related preventative maintenance procedures | Prerequisites: None. | | Occ | LEC 1.0 1.0 1.0 | S |
| PPT207 | 2003 Fall | Heat Exchangers | | Heat exchanger theory including heat transfer and operating principles. Classification of heat exchangers including types, construction, and operation. | Prerequisites: None. | | Occ | LEC 1.0 1.0 1.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Inspection of heat exchangers. Cleaning of exchanger tubes and shells. Cleaning of component parts. Troubleshooting tubes. Maintenance of exchangers | | | | | |
| PPT209 | 2003 Fall | Pipefitting Auxiliaries II | | Purpose, terminology and system stress factors related to piping systems. Principles of fluid flow, and piping inspection procedures. Fabrication and installation of tubing materials, specific joints, and flanges. Basic piping system component maintenance, rework and installation procedures | Prerequisites: A grade of C or better in PPT109. | | Occ | LEC 2.0 2.0 2.0 | S |
| PPT210 | 2017 Fall | Valve Maintenance II | | Fundamentals of hand lapping. Dexter and Unislip resurfacing tools. Valve packing: purpose, components and specifications. Valve survey data sheet. Procedure for field manufacture of die-formed packing rings. Function of the Optical Flat. Valve inspection. Gaskets and torquing techniques. | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| PPT211 | 2003 Fall | Couplings | | Types, functions, and specific applications of couplings. Coupling removal and inspection procedures. Coupling rework and installation | Prerequisites: None. | | Occ | LEC 0.5 0.5 0.5 | S |
| PPT212 | 2003 Fall | Control Valves and Actuators | | Modulating control terminology. Disassembly, inspection and assembly processes. Construction and operation of specific actuators. Maintenance of pneumatic and hydraulic valve actuators. Principles of operation, inspection and testing of control valves. Bench testing | Prerequisites: None. | | Occ | LEC 1.0 1.0 1.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| PPT213 | 2003 Fall | Pumps II | | Rotary, reciprocating and centrifugal pump operation. Positive displacement and metering pump operation. Diaphragm pulsafeeder operation. Disassembly, inspection and reassembly of radially and axially split centrifugal pumps. Troubleshooting and lab safety | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| PPT214 | 2018 Fall | Machine Alignment | | Calculations and practical lab exercises using alignment principles. Determination of indicator sag and thermal growth. Obtaining readings for alignment or misalignment. Rim- face method of alignment stressed and practiced | Prerequisites: None. | | Occ | L+L 3.0 5.0 5.0 | T |
| PPT215 | 2003 Fall | Relief and Safety Valves | | Concepts of pressure and pressure measurement. Components and operation of rupture discs, relief valves, and safety valves. Maintenance procedures | Prerequisites: None. | | Occ | LEC 1.0 1.0 1.0 | S |
| PPT218 | 2018 Fall | Lathe Operations | | Safe and proper operation of the lathe. Component and accessories and their functions. Cutting tools and methods. Processes of machining including mounting, aligning, knurling, grooving, turning, thread cutting, drilling, reaming boring, and tapping. Machining techniques using a chuck | Prerequisites: None. | | Occ | L+L 2.0 4.0 4.0 | T |
| PPT219 | 2003 Fall | Milling Machine Operations | | Components of horizontal and vertical milling machines. Common milling machine accessories and cutters. Cutting speeds, feeds and depths for materials and cutters. Machine set up and operations. Common cutter failure. Operation of horizontal | Prerequisites: None. | | Occ | LEC 2.0 2.0 2.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | and vertical milling machines. Milling safety | | | | | |
| PPT220 | 2020 Summer | Heat Transfer and Fluid Flow | | Course covers topics in heat transfer, fluid flow and thermodynamics. Topics include the properties of fluids, modes of heat transfer, and the energy relationships in fluid systems. | Prerequisites: A grade of C or better in college-level math course, or appropriate District placement, or permission of Department/Division Chair. | | | LEC 3.0 3.0 3.0 | S |
| PPT221 | 2017 Fall | Reactor Theory | | Basic nuclear reactor theory to include atomic and nuclear physics, thermodynamics, and heat transfer and fluid flow. | Prerequisites: A grade of C or better in PPT120 and GTC108, or permission of Program Director. | | | LEC 3.0 3.0 3.0 | S |
| PPT222 | 2019 Fall | Reactor Plant Chemistry and Materials | | Basic nuclear reactor theory to include reactor chemistry, water chemistry, radiation detection and protection principles, and reactor plant materials. | Prerequisites: A grade of C or better in PPT120 or permission of Program Director. | Occ | Occ | LEC 3.0 3.0 3.0 | S |
| PPT224EI | 2018 Fall | Components for Maintenance Technicians | | Electrical component types and characteristics, such as circuit breakers and fuses, instrumentation schematics, protective relaying, and inverters. | Prerequisites: A grade of C or better in PPT202 or PPT203, or permission of Program Director. | Occ | | LEC 1.0 1.0 1.0 | S |
| PPT224EM | 2018 Fall | Electrical Components for Maintenance Technicians | | In-depth reading and troubleshooting of electrical engineering and vendor prints. Operation and control of emergency power systems. Diesel Generators will also be covered. | Prerequisites: A grade of C or better in PPT202 or PPT203, or permission of Program Director. | | | LEC 1.0 1.0 1.0 | S |
| PPT224MM | 2013 Summer I | Mechanical Components for Maintenance Technicians | | Mechanical component types and characteristics, common failure mechanisms, and operating principles of plant components. | Prerequisites: A grade of C or better in PPT202 or PPT203. | Occ | Occ | LEC 1.0 1.0 1.0 | S |
| PPT225 | 2020 Summer | Industrial Plant Chemistry and Materials | | Fundamentals of industrial chemistry and materials to include chemistry principles, water chemistry control, cooling water chemistry, chemical hazards, and material science. | Prerequisites: A grade of C or better in college-level math course, or appropriate District placement, or permission of | Occ | Occ | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | Department/Division Chair. | | | | |
| PPT230 | 2020 Summer | Nuclear Plant Systems | | Operation, components, instrumentation and controls, automatic features, and precautions and limitations of nuclear plant systems. | Prerequisites: A grade of C or better in college-level math course, or appropriate District placement, or permission of Department/Division Chair. | | | LEC 3.0 3.0 3.0 | S |
| PPT235 | 2020 Summer | Nuclear Physics | | Course provides a foundation for understanding atomic and nuclear physics, neutron characteristics, reactor theory, reactor operation, and radiation fundamentals. | Prerequisites: A grade of C or better in college-level math course, or appropriate District placement, or permission of Department/Division Chair. | Occ | | LEC 3.0 3.0 3.0 | S |
| PPT242 | 2020 Summer | Components for Maintenance Technicians | | Electrical component types and characteristics, such as circuit breakers and fuses, instrumentation schematics, protective relaying, and inverters. In-depth reading and troubleshooting of electrical engineering and vendor prints. Operation and control of emergency power systems. Diesel Generators will also be covered. | Prerequisites: A grade of C or better in (ELC119 and ELC120) or permission of Program Director. | Occ | Occ | L+L 2.0 2.0 2.0 | T |
| PPT250 | 2019 Summer | Power Plant Position Preparation | | Prepares students for the Power Plant Maintenance Positions Selection System (MASS) examination. Reading comprehension, mechanical concepts, spatial ability, and mathematical usage. | Prerequisites: None. | PPT250 may be repeated for a total of four (4) credit hours. | Occ | LEC 2.0 2.0 2.0 | S |
| PPT255 | 2019 Fall | Fossil Systems | | Upon completion, the student will be able to explain how fossil plant systems operate in accordance with reference materials. | Prerequisites: None. | | Occ | L+L 3.0 3.0 3.0 | S |
| PPT270AA | 2019 Fall | Power Systems Technology Internship | | Work experience in power plant industry and / or related field. Five (5) hours of work weekly. Approval, supervision | Prerequisites: Permission of Department or Division. | | | L+L 1.0 5.0 0.0 | C |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | and evaluation by an internship coordinator. | | | | | |
| PPT270AB | 2019 Fall | Power Systems Technology Internship | | Work experience in power plant industry and / or related field. Ten (10) hours of work weekly. Approval, supervision and evaluation by an internship coordinator. | Prerequisites: Permission of Department or Division. | | | L+L 2.0 10.0 0.0 | C |
| PPT270AC | 2019 Fall | Power Systems Technology Internship | | Work experience in power plant industry and / or related field. Fifteen (15) hours of work weekly. Approval, supervision and evaluation by an internship coordinator. | Prerequisites: Permission of Department or Division. | | | L+L 3.0 15.0 0.0 | C |
| PPT298AA | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | Prerequisites: Permission of Program Director or Instructor. | Occ<br><br><br><br>Occ | Occ | LAB 1.0 1.0 0.0 | Z |
| PPT298AB | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | Prerequisites: Permission of Program Director or Instructor. | | Occ | LAB 2.0 2.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| PPT298AC | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | Prerequisites: Permission of Program Director or Instructor. | | Occ | LAB 3.0 3.0 0.0 | Z |
| PSA301 | 2023 Fall | Foundations of Public Safety Administration | | Foundation in the principles and study of public safety administration including legal, political, and social factors. Overview of organizational theory and management, human capital management, resource management, leadership, and ethics that guide administration of diverse public safety organizations. | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| PSA305 | 2023 Fall | Communication Strategies for Public Safety Professionals | | Overview of communication and public relations for public safety professionals. Topics include organization's internal and external environment and identifying and addressing public relations situations that emerge in these environments including the use of social media and other news media channels. Emphasis on developing, implementing, and evaluating public relations plans and strategies. | Prerequisites: A grade of C or better in [(COM100, or COM110, or COM230, or COM225) and (ENG102 or ENG108)] or permission of Program Director or Department/Division. | Occ | | LEC 3.0 3.0 3.0 | S |
| PSA310 | 2023 Fall | Research Methods for Public Safety Administration | | Overview of research methods and presentation of research results for public safety administration. Introduction to quantitative and qualitative | Prerequisites: A grade of C or better in [(ENG102 or ENG108), and (MAT14+, or MAT15+, or equivalent), | | | L+L 4.0 6.0 6.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | methods including statistics for conducting and analyzing discipline-specific research within the fields of public safety. | and [MAT206, or PSY230, or (PSY230 and PSY231), or PSY230WL]], or permission of Instructor or Program Director or Department/Division Chair. | | | | |
| PSA315 | 2023 Fall | Public Policy and Public Safety Organizations | | Overview of public policy as it relates to the administration and management of public safety organizations. Topics include the political environment, laws and regulations, and the interrelationship among law, regulations, budget and finance, and public policy. Focus on current issues surrounding public administration and bureaucracy, as well as how public constituencies can affect public policy decision-making. | Prerequisites: A grade of C or better in [PAD100 and (ENG102 or ENG108)], or permission of Instructor or Program Director or Department/Division Chair. | Occ | | LEC 3.0 3.0 3.0 | S |
| PSA320 | 2023 Fall | Human Capital Management for Public Safety Organizations | | Examination of the role and functions of human capital management in public safety organizations including recruitment, hiring, retention, and training. Focus on the impact and intersections of strategic planning, employee benefits and compensation, personnel issues, performance management, employment laws, labor relations, and responding to internal and external inquiries as it relates to the administration of public safety organizations. | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| PSA398AA | 2024 Fall | Special Topics in the Public Safety Administration | | Explores special topics including current issues within the field of public safety administration. Focuses on | Prerequisites: None. | | Occ | LEC 1.0 1.0 1.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | examination and investigation of existing and innovative program solving techniques also related to the field. | | | | | |
| PSA398AB | 2024 Fall | Special Topics in the Public Safety Administration | | Explores special topics including current issues within the field of public safety administration. Focuses on examination and investigation of existing and innovative program solving techniques also related to the field. | Prerequisites: None. | | Occ | LEC 2.0 2.0 2.0 | S |
| PSA398AC | 2024 Fall | Special Topics in the Public Safety Administration | | Explores special topics including current issues within the field of public safety administration. Focuses on examination and investigation of existing and innovative program solving techniques also related to the field. | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| PSA401 | 2023 Fall | Public Safety Leadership | | Examines the nature and roles of leadership in public safety, including concepts of organizational culture, leadership principles, and management strategies unique to public safety organizations. | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| PSA405 | 2023 Fall | Public Safety Finance and Budget | | Overview of the public finance system at all levels of government as it relates to the development of a budget for a public safety department. Topics include state and local budget process, revenue and funding sources involving taxes and revenue forecasting, as well as capital planning, projects, and budgets related to public safety. The course will consider alternative sources of public safety funding available to local government entities and stewardship of funds. | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| PSA410 | 2023 Fall | Program Planning and Evaluation for Public Safety Organizations | | Focus on knowledge and skills required of public safety leaders in strategic planning for the design, development, implementation, and evaluation of social intervention initiatives related to public safety, health, and disaster management. Exploration of theories related to public services considered in the development of programs, the application of evaluation findings, and prioritization of community concerns and resources. | Prerequisites: A grade of C or better in PSA310 or permission of Instructor or Program Director or Department/Division Chair. | Occ | | LEC 3.0 3.0 3.0 | S |
| PSA439 | 2023 Fall | Critical Incident Management for Public Safety Professionals | | In-depth examination of the process of critical incident management for supervisors, encompassing a variety of events that impact public safety organizations. Focus on the four phases of emergency management in relation to critical incident management. | Prerequisites: A grade of C or better in (AJS/FSC147 and AJS/FSC148), or permission of Program Director or Department/Division Chair. Prerequisites or Corequisites: AJS/FSC149 or permission of Program Director or Department/Division Chair. | Occ | | LEC 3.0 3.0 3.0 | S |
| PSA449 | 2023 Fall | Strategic Hazard Mitigation | | In-depth examination of the process of strategic hazard mitigation for supervisors, encompassing a variety of events that impact Public Safety Organizations. Focus on mitigation planning to address community risks and vulnerabilities including the stakeholders involved and strategies employed to improve community resilience. | Prerequisites: A grade of C or better in PSA439 or permission of Program Director or Department/Division Chair. | | | LEC 3.0 3.0 3.0 | S |
| PSA450 | 2023 Fall | 21st Century Public Safety Practices | | Examination of emerging trends in public safety administration and organizational responsiveness | Prerequisites: None. | Occ | Occ | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | through policy and practice. Topics include an overview of public safety administration, components of ethical leadership, sustainable and evolving practices, internal and external influences on policy, technology, effective data collection, and strategic planning to address societal and cultural changes in the community and workforce. | | | | | |
| PSA460 | 2023 Fall | Crime Scene Coordination for Public Safety Professionals | | Overview of the crime scene logistics needed to effectively coordinate the work of law enforcement officers, police dispatch, forensic science services personnel, emergency medical personnel, and others present during crime scene investigations. | Prerequisites: A grade of C or better in AJS275, or LET225, or permission of Program Director or Department/Division Chair. | | | LEC 3.0 3.0 3.0 | S |
| PSA470 | 2023 Fall | Administrative Law for Public Safety Professionals | | Introduction to the basic principles of administrative law for public safety professionals including the structure of federal, state, and local administrative institutions. Topics include the sources of law for administrative agencies, the basic procedures for administrative rulemaking, adjudication, and compliance, as well as judicial review of agency action. | Prerequisites: None. | Occ | Occ | LEC 3.0 3.0 3.0 | S |
| PSA490 | 2023 Fall | Public Safety Administration Capstone | | Completion of a professional project within the field of public safety administration applying concepts covered throughout the program. Students will demonstrate the steps for issue identification, related research, analysis, and presentation of information. Project topics will | Prerequisites: Permission of Program Director or Department/Division Chair. | | | L+L 3.0 4.0 4.0 | T |



Occ

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | follow an instructor approval process. | | | | | |
| PSG140 | 2018 Fall | Respiratory Care Fundamentals and Physiology for Polysomnography | | Introduction to the development and implementation of prescribed care plans for sleep-related breathing disorders. Administration of basic respiratory therapeutic modalities for sleep-related breathing disorders and non-invasive assisted breathing. Use and maintenance of all forms of positive airway pressure therapy with specific knowledge of how algorithms function when using advanced positive pressure therapies. Basic respiratory physiology as it relates to sleep-related breathing disorders. | Prerequisites: Admission to the Polysomnographic Technology program. | | Occ | LEC 4.0 3.0 3.0 LAB 0.0 3.0 3.0 | T |
| PSG150 | 2018 Fall | Introduction to Sleep Medicine | | Introduction to the fundamental concepts of polysomnography, sleep technology and sleep medicine. Emphasis on nomenclature, technical and medical roles, normal sleep, sleep disorders, and professional organizations and resources. | Prerequisites: Admission into the Polysomnographic Technology program. Corequisites: PSG150LL. | | | LEC 3.0 3.0 3.0 | S |
| PSG150LL | 2018 Fall | Introduction to Sleep Medicine Laboratory | | Introduction to the fundamental concepts of polysomnography, sleep technology and sleep medicine in the laboratory setting. Emphasis on nomenclature, technical and medical roles, normal sleep, sleep disorders, and professional organizations and resources. | Prerequisites: Admission to the Polysomnographic Technology program. Corequisites: PSG150. | Occ | Occ | LAB 1.0 3.0 3.0 | T |
| PSG160 | 2018 Fall | Polysomnographic Procedures | | Practical application of clinical procedures germane to the performance of polysomnography. Emphasis | Prerequisites: Admission into the Polysomnographic Technology program. | | | LEC 2.0 2.0 2.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | on patient assessment and communications, pre-test preparations, patient hook-up, instrument calibration and operation, test termination, cleanup and troubleshooting. | Corequisites: PSG160LL. | | | | |
| PSG160LL | 2018 Fall | Polysomnographic Procedures Laboratory | | Practical application of clinical procedures germane to the performance of polysomnography. Emphasis on patient assessment and communications, pre-test preparations, patient hook-up, instrument calibration and operation, test termination, cleanup and troubleshooting. | Prerequisites: Admission to the Polysomnographic Technology program. Corequisites: PSG160. | | Occ | LAB 1.0 3.0 3.0 | T |
| PSG165 | 2009 Fall | Clinical Polysomnographic I | | Introduction to a sleep disorders center, observation of a center conducting polysomnography, and participation in performance of associated procedures. Emphasis on patient preparation, testing protocol, instrument calibration and operation, documentation, and patient interactions | Prerequisites: Admission into the Polysomnography Technology program. | | Occ | LAB 3.0 15.0 0.0 | C |
| PSG170 | 2018 Fall | Sleep Therapeutics | | Review of sleep therapies to include medical treatment of insomnia, hypersomnia, restless legs syndrome, periodic limb movement disorder, rapid eye movement sleep behavior disorder, parasomnias, and the use of positive airway pressure therapy and/or oxygen therapy to treat sleep-disordered breathing. | Prerequisites: Admission into the Polysomnographic Technology program. Corequisites: PSG170LL. | | | LEC 2.0 2.0 2.0 | S |
| PSG170LL | 2018 Fall | Sleep Therapeutics Laboratory | | Perform sleep therapies to include medical treatment of insomnia, hypersomnia, restless legs syndrome, periodic limb movement disorder, rapid eye movement sleep behavior disorder, | Prerequisites: Admission to the Polysomnographic Technology program. Corequisites: PSG170. | Occ | Occ | LAB 1.0 3.0 3.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | parasomnias, the use of positive airway pressure therapy and/or oxygen therapy to treat sleep-disordered breathing. | | | | | |
| PSG250 | 2018 Fall | Record Scoring | | Polysomnographic record scoring including visual, arousal, cardiac, movement, and respiratory scoring rules outlined by the American Academy of Sleep Medicine. Polysomnogram report generation and calculations, technical and digital specifications, multiple sleep latency test/maintenance of wakefulness test scoring and reporting, and archive and data storage, abnormal polysomnographic record events, and artifact recognition. | Prerequisites: Admission into the Polysomnographic Technology program. Corequisites: PSG250LL. | Occ | | LEC 2.0 2.0 2.0 | S |
| PSG250LL | 2018 Fall | Record Scoring Laboratory | | Polysomnographic record scoring including visual, arousal, cardiac, movement, and respiratory scoring rules outlined by the American Academy of Sleep Medicine (AASM). Polysomnogram report generation and calculations, technical and digital specifications, multiple sleep latency test/maintenance of wakefulness test scoring and reporting, and archive and data storage, abnormal polysomnographic record events, and artifact recognition. | Prerequisites: Admission to the Polysomnographic Technology program. Corequisites: PSG250. | Occ | | LAB 1.0 3.0 3.0 | T |
| PSG260 | 2009 Fall | Special Topics in Polysomnography | | Specialized techniques, equipment and procedures used in polysomnography. Emphasis on infant, pediatric and geriatric populations, disabled and | Prerequisites: Admission into the Polysomnography Technology program. | | | LEC 2.0 2.0 2.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | emotionally/mentally challenged, Polysomnograms with legal implications, research, and less commonly performed procedures. | | | | | |
| PSG265 | 2009 Fall | Clinical Polysomnography II | | Participation in clinical polysomnography testing. Emphasis on patient preparation, troubleshooting, therapeutics, proper documentation, record review, scoring and report generation. | Prerequisites: Admission into the Polysomnography Technology program. | | Occ | LAB 2.0 10.0 0.0 | C |
| PSG275 | 2009 Fall | Clinical Polysomnography III | | Clinical polysomnography testing. Emphasis on independent function and decision making, time management, record review, scoring and report preparation. | Prerequisites: Admission into the Polysomnography Technology program. | | Occ | LAB 3.0 15.0 0.0 | C |
| PSG282AA | 2018 Fall | Volunteerism for Polysomnographic Technology: Service Learning Experience | | Service learning field experience within private/public agencies, educational institution, and citizen volunteer groups. | Prerequisites: Permission of Instructor. | PSG282AA may be repeated for a total of six (6) credit hours. Standard grading available according to procedures outlined in catalog. | Occ | LAB 1.0 1.0 1.0 | T |
| PSY101 | 2022 Fall | Introduction to Psychology | | Overview of the study and methods of psychological science. Includes an introduction to subfields such as biopsychology, learning, memory, development, social, and psychological disorders. | Prerequisites: None. | | Acad | LEC 3.0 3.0 3.0 | S |
| PSY102 | 2018 Fall | Introduction to Psychology Lab | | Optional laboratory designed to accompany PSY101. Application of psychological principles in areas such as learning, memory, emotion, motivation, cognition, language, development, personality, and intelligence. | Prerequisites: A grade of C or better in PSY101 or Corequisites: PSY101 or permission of Instructor. | | Acad | LAB 1.0 1.0 1.0 | T |
| PSY123 | 2022 Fall | Psychology of Parenting | | The demonstration and application of psychological principles to parenting and the development and guidance of children and adolescents. | Prerequisites: None. | Course Attribute(s): General Education Designation: Social and Behavioral Sciences - [SB] | Acad | LEC 3.0 3.0 3.0 | S |
| PSY132 | 2014 Fall | Psychology and Culture | | Presents current knowledge about human diversity in | Prerequisites: None. | | Acad | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | behavior and culture using examples from a variety of contexts within western and global societies. Highlights topics in cross-cultural psychology, such as intergroup relations, diverse cognitive styles, ethnocentrism, gender, personality, emotion, language, communication, work and health. The role of enculturation throughout the lifespan will be explored to increase awareness of how behavioral and cognitive principles affect interactions in a multicultural world. | | | | | |
| PSY143 | 2023 Fall | Psychology of Sexual Orientation and Gender Identity | | Introduction to the psychological study of sexual orientation and gender identity. Focus on psychological, developmental, social, biological, historical, and cultural aspects. Includes topics related to the recognition and development of sexual orientation and gender identity throughout the lifespan and lived experiences of LGBTQIA+ individuals and communities. Examines prejudice, discrimination, family dynamics, contributions, and current issues impacting LGBTQIA+ individuals, their allies, and communities. | Prerequisites: None. | | Acad | LEC 3.0 3.0 3.0 | S |
| PSY156 | 2022 Fall | Understanding Death and Dying | | Designed to give the student an understanding of the research and theories of death, dying, bereavement process, and aspects of end-of-life care and decision-making. | Prerequisites: None. | Course Attribute(s): General Education Designation: Social-Behavioral Sciences - [SB] | Acad | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| PSY157 | 2009 Fall | African/Black Psychology | | Historical overview of the development of Black Psychology and the African-American "frame of reference." Includes topics such as family, psychological assessment, mental health, male/female relationships, personality and community development as well as educational, ethical and contemporary issues. Critical examination of psycho-cultural forces which have helped to shape and determine the unique thought, styles, behavior of African-Americans and to gain a greater appreciation of the theories, research, writings, and activities of Black Psychologists. | Prerequisites: None. | Course Attribute(s): General Education Designation: Cultural Diversity - [C] General Education Designation: Social and Behavioral Sciences - [SB] | Acad | LEC 3.0 3.0 3.0 | S |
| PSY201AC | 1996 Fall | Selected Issues in Psychology | | In-depth investigation of topical issues in Psychology. Promotes understanding of the psychological theory, application, and critical reasoning about the selected psychological issues and topics. Potential topics may include, but not limited to, parenting, gender, applied cognitive psychology, personality, perception, applied-experimental interventions, motivation, emotion, cultural psychology, methodology paradigms, history and systems, development, and intelligence. | Prerequisites: A grade of C or better in PSY101 or permission of Instructor. | PSY201AC may be repeated for credit with change of topic. | Acad | LEC 3.0 3.0 3.0 | S |
| PSY210 | 2001 Summer I | Educational Psychology | | Scientific research and psychological principles as they apply to teaching and learning. The role of psychology in educational settings, human diversity, | Prerequisites: A grade of C or better in PSY101 or permission of Instructor. | | Acad | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | theories of learning, intelligence, memory, creativity, assessment, and factors influencing effective instruction and learning. | | | | | |
| PSY215 | 2022 Fall | Sports Psychology | | Application of the physiological, behavioral, social, cognitive, and humanistic perspectives in psychology to sport. Includes topics such as optimal performance, correlation, motivation, co-action effect, self-actualization, psycho-behavioral techniques, self-efficacy, and the general health benefits of sport participation. | Prerequisites: None. | | Acad | LEC 3.0 3.0 3.0 | S |
| PSY218 | 1999 Fall | Health Psychology | | Behavioral and mental foundations of health, wellness, illness, and disease, and psychological dimensions of medical intervention. | Prerequisites: A grade of C or better in PSY101 or permission of Instructor. | Course Attribute(s): General Education Designation: Social and Behavioral Sciences - [SB] | Acad | LEC 3.0 3.0 3.0 | S |
| PSY225 | 2010 Summer I | Psychology of Religion | | Provides an introduction to the history, varieties and theories of the psychology of religion from an empirical, research-based perspective. Specific areas of study include the role of gender, age, socioeconomic status, and personality on religious experience, the effects of religion and prayer on mental and physical health, the development of religious thought and behavior over the lifespan, and the social psychology of new religious movements. In addition, the role of cultural differences on religious attitudes both within the USA and around the world is also addressed. | Prerequisites: A grade of C or better in PSY101 or Permission of Instructor. | Course Attribute(s): General Education Designation: Global Awareness - [G] General Education Designation: Social and Behavioral Sciences - [SB] | Acad | LEC 3.0 3.0 3.0 | S |
| PSY230 | 2023 Fall | Introduction to Statistics | | An introduction to basic concepts in descriptive and | Prerequisites: A grade of C or better in | Student may receive credit for only one (1) of the following | Acad | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | inferential statistics, with emphasis upon application to psychology. Consideration given to the methods of data collection, sampling techniques, graphing of data, and the statistical evaluation of data collected through experimentation. Required of psychology majors. | (PSY101 and eligibility for MAT14+ or higher as indicated by appropriate district mathematics placement) or permission of Instructor. | courses: PSY230 or PSY230WL. | | | |
| PSY230WL | 2023 Fall | Introduction to Statistics with Lab | | An introduction to basic concepts in descriptive and inferential statistics, with emphasis upon application to psychology. Consideration given to the methods of data collection, sampling techniques, graphing of data, use of statistical software, and the statistical evaluation of data collected through experimentation. Required of psychology majors. | Prerequisites: A grade of C or better in (PSY101 and eligibility for MAT14+ or higher as indicated by appropriate district mathematics placement) or permission of Instructor. | Student may receive credit for only one (1) of the following courses: PSY230 or PSY230WL. | Acad | L+L 4.0 5.0 5.0 | T |
| PSY231 | 2022 Fall | Laboratory for Statistics | | Applications of inferential and descriptive statistics to statistical software in the field of psychology. | Prerequisites: None. Corequisites: PSY230. | | | LAB 1.0 2.0 2.0 | T |
| PSY235 | 2007 Fall | Psychology of Gender | | To assess historical and psychological perspectives on women and men and to evaluate contemporary viewpoints regarding the psychology of women and men. | Prerequisites: A grade of C or better in PSY101 or permission of Instructor. | Course Attribute(s): General Education Designation: Social and Behavioral Sciences - [SB] General Education Designation: Cultural Diversity - [C] | Acad | LEC 3.0 3.0 3.0 | S |
| PSY240 | 2022 Fall | Developmental Psychology | | Human development from conception through death. Includes biological, physical, cognitive, emotional, and sociocultural development across various ages. | Prerequisites: A grade of C or better in PSY101 or permission of Instructor. | PSY240 is recommended for students majoring in nursing, education, behavioral, pre-med, and psychology. | Acad | LEC 3.0 3.0 3.0 | S |
| PSY241 | 2022 Spring | Understanding and Changing Behavior | | Theory and methods for observing, analyzing, and modifying behavior. | Prerequisites: A grade of C or better in PSY101 or permission of Instructor. | | Acad | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| PSY242 | 2021 Fall | Understanding and Changing Behavior Lab | | Advanced course designed to enable students to apply the principles of Applied Behavior Analysis (ABA) in a lab setting. Incorporates case studies and hands-on employment of best practices. Reviews current research in areas including, but not limited to, schedules of reinforcement, functional behavior assessment, stimulus discrimination and generalization. | Prerequisites: A grade of C or better in PSY241. | PSY242 students will complete in-class role-plays, practice exam questions, and submit videos of themselves performing specific procedures. | Acad | LAB 1.0 1.0 1.0 | T |
| PSY243 | 2022 Spring | The Psychology of Developmental Disabilities | | The interrelationships among the physical, intellectual, social, and psychological aspects of developmental disabilities (DD). Various service approaches, policies, and programs designed to foster an adequate adjustment for individuals with DD and their families. Values and beliefs relating to persons with developmental disabilities. | Prerequisites: A grade of C or better in PSY101. | | | LEC 3.0 3.0 3.0 | S |
| PSY244 | 2023 Fall | Internship in Psychology | | Experience in working in a wide variety of settings including but not limited to schools, non-profit agencies, advocacy agencies and other governmental agencies. 80 hours of designated volunteer or paid work. | Prerequisites: A grade of C or better required in all prerequisites. Prerequisites or Corequisites: Any two (2) 200-level PSY courses and permission of Instructor. | PSY244 may be repeated for a $t_A o_c tal_d$ of two (2) credit hours. | Acad | L+L 1.0 1.0 0.0 | C |
| PSY248 | 2004 Fall | Psychology of Adolescent Development | | Explores the highly specialized developmental stage of adolescence. Includes biological, cognitive, psychosexual, and sociocultural factors as well as current theories and research. | Prerequisites: A grade of C or better in PSY101 or permission of Instructor. | | Acad | LEC 3.0 3.0 3.0 | S |
| PSY250 | 1999 Fall | Social Psychology | | The scientific study of how people's thoughts, feelings, and behaviors are influenced by other people and situations. Includes how we | Prerequisites: A grade of C or better in PSY101 or permission of Instructor. | Course Attribute(s): General Education Designation: Social and Behavioral Sciences - [SB] | Acad | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | think about ourselves and others, persuasion and influence, sexual and romantic attraction, friendship and helping others, aggression and prejudice. | | | | | |
| PSY260 | 2003 Fall | Psychology of Personality | | Introduction to theories of personality with emphasis upon application of specific theories towards the understanding of individuals. | Prerequisites: A grade of C or better in PSY101 or permission of Instructor. | Course Attribute(s): General Education Designation: Social and Behavioral Sciences - [SB] | Acad | LEC 3.0 3.0 3.0 | S |
| PSY262 | 2021 Fall | Positive Psychology: The Science of Well-Being | | Overview and application of psychological principles based on strengths and resilience of human beings as opposed to dysfunction and symptoms of mental disorders. Topics include happiness, relationships, resilience, optimism, well-being, and brain research explaining positive emotions. | Prerequisites: None. | | Acad | LEC 3.0 3.0 3.0 | S |
| PSY266 | 2022 Fall | Psychological Disorders | | Distinguishes between healthy psychological functioning and psychological disorders. Includes topics in psychopathology such as problems with anxiety and depression, eating disorders, substance-use, schizophrenia, sexuality, and personality. Also covers causes and treatments of psychological disorders. | Prerequisites: A grade of C or better in PSY101 or permission of Instructor. | | Acad | LEC 3.0 3.0 3.0 | S |
| PSY267 | 2017 Summer | Introduction to Forensic Psychology | | Overview of the practice of psychology in the law, by the law, and of the law. Focuses on the complementary functions and distinctions between psychology and the legal justice system. Topics include, but are not limited to, criminal investigations, risk and level of danger, competency, interrogations, confessions, assessment, | Prerequisites: A grade of C or better in PSY101. | | | LEC 3.0 3.0 3.0 | S |



Acad

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | eyewitness testimony, child custody, and domestic violence. | | | | | |
| PSY270 | 2013 Summer I | Personal and Social Adjustment | | Surveys the basic mental health principles as they relate to coping with stress, interpersonal relationships, sex, marriage, and working. Emphasis on learning to become a more competent and effective person. | Prerequisites: A grade of C or better in PSY101 or permission of Instructor. | | Acad | LEC 3.0 3.0 3.0 | S |
| PSY275 | 2018 Fall | Biopsychology | | Biological foundations of sensation, perception, motivation, emotion, cognition and psychopathology. Designed for students in the life sciences. | Prerequisites: A grade of C or better in PSY101 or permission of Instructor. | Course Attribute(s): General Education Designation: Natural Sciences (General) - [SG] | Acad | L+L 4.0 5.0 5.0 | T |
| PSY277 | 2018 Fall | Psychology of Human Sexuality | | Survey of psychological and physiological aspects of human sexual behavior. Emphasis placed on the integration of the cognitive, emotional, and behavioral factors in sexual functioning. | Prerequisites: A grade of C or better in PSY101. | PSY277 may contain adult content. All students under the age of 18 are required to have a signed parental consent form on file, which is on the back of the Under the Age of 18 Enrollment Form. | Acad | LEC 3.0 3.0 3.0 | S |
| PSY280 | 2024 Fall | Industrial/Organizational Psychology | | The application of psychological principles to business and industry practices including organizational structure, leadership, personnel, employee stress and conflict, workplace conditions and job performance. | Prerequisites: A grade of C or better in PSY101, or permission of Instructor. | | Acad | LEC 3.0 3.0 3.0 | S |
| PSY282AA | 1994 Fall | Volunteerism Service Learning Experience in Psychology | | Service learning field experience within private/public agencies, and citizen volunteer groups. | Prerequisites: A grade of C or better in PSY101 and permission of Instructor. | PSY282AA may be repeated for a total of three (3) credit hours. Standard grading available according to procedures outlined in catalog. | Acad | LAB 1.0 1.0 0.0 | L |
| PSY282AB | 1994 Fall | Volunteerism Service Learning Experience in Psychology | | Service learning field experience within private/public agencies, and citizen volunteer groups. | Prerequisites: A grade of C or better in PSY101 and permission of Instructor. | PSY282AB may be repeated for a total of three (3) credit hours. Standard grading available according to procedures outlined in catalog | Acad | LAB 2.0 2.0 0.0 | L |
| PSY282AC | 1994 Fall | Volunteerism Service Learning Experience in Psychology | | Service learning field experience within | Prerequisites: A grade of C or better in | Standard grading available according to procedures outlined in catalog. | Acad | LAB 3.0 3.0 0.0 | L |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | private/public agencies, and citizen volunteer groups. | PSY101 and permission of Instructor. | | | | |
| PSY290AB | 2023 Fall | Research Methods | | Planning, execution, analysis, and written reporting of psychological research using American Psychological Association guidelines (APA). Surveys the literature, procedures, and instruments in representative areas of psychological research. | A grade of C or better required in all Prerequisites. Prerequisites: ENG101 or ENG107. Prerequisites or Corequisites: PSY230 or PSY230WL or permission of Instructor. | Course Attribute(s): General Education Designation: Literacy and Critical Inquiry - [L] General Education Designation: Natural Sciences (General) - [SG] Arizona Shared Unique Number SUN#: PSY 2290 | Acad | LEC 4.0 3.0 3.0 LAB 0.0 3.0 3.0 | T |
| PSY290AC | 2023 Fall | Research Methods | | Planning, execution, analysis, and written reporting of psychological research using American Psychological Association guidelines (APA). Surveys the literature, procedures, and instruments in representative areas of psychological research. | A grade of C or better required in all Prerequisites. Prerequisites: ENG101 or ENG107. Prerequisites or Corequisites: PSY230 or PSY230WL or permission of Instructor. | Course Attribute(s): General Education Designation: Literacy and Critical Inquiry - [L] General Education Designation: Natural Sciences (General) - [SG] Arizona Shared Unique Number SUN# PSY 2290 | Acad | LEC 3.0 3.0 3.0 LAB 1.0 2.0 2.0 | T |
| PSY292 | 1999 Fall | Psychology of Altered States of Consciousness | | Examines phenomena and history of altered states of consciousness. Surveys scientific principles, methods and applications in altered states research. Reviews current psychological research in topics related to sensory deprivation, daydreaming, meditation, hypnosis, sleep and dreams, and the effects of drugs. | Prerequisites: A grade of C or better in PSY101 or permission of Instructor. | Course Attribute(s): General Education Designation: Social and Behavioral Sciences - [SB] | Acad | LEC 3.0 3.0 3.0 | S |
| PSY295AA | 2018 Spring | Independent Research in Psychology | | Original scientific investigation of psychology-related phenomenon. | Prerequisites: A grade of C or better in PSY290++ or Corequisites: PSY290++ or permission of Instructor. | PSY295AA requires a minimum of 80 hours of laboratory/research study. PSY295AA may be repeated for credit. | Acad | LAB 1.0 1.0 0.0 | C |
| PSY298AA | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type | Prerequisites: Permission of Program Director or Instructor. | | Acad | LAB 1.0 1.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | | | | | |
| PSY298AB | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | Prerequisites: Permission of Program Director or Instructor. | Acad | | LAB 2.0 2.0 0.0 | Z |
| PSY298AC | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | Prerequisites: Permission of Program Director or Instructor. | Acad | | LAB 3.0 3.0 0.0 | Z |
| PTA101 | 2022 Fall | Survey of Physical Therapy | | History of physical therapy. Purpose, benefits, and goals of the Arizona and American Physical Therapy Associations (APTA). Roles and responsibilities of physical | Prerequisites: Admission to the Physical Therapist Assisting program or permission of the Program Director. | | | LEC 1.5 1.5 1.5 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | therapists (PT) and physical therapist assistants (PTA). Patient care, legal issues, principles of physical therapy treatment, education requirements, and functions of the American Physical Therapy Association. Clinical practice settings used in the provision of physical therapy services. Common medical conditions and injuries treated by PT's and PTA's. Emerging opportunities in the practice of physical therapy. | | | | | |
| PTA102 | 2006 Fall | Structured Physical Therapist Assisting Review | | Structured physical therapist assisting tutorial assistance and physical therapist assisting study skills related to physical therapist assisting courses. Physical therapist assisting process and critical thinking application skills emphasized. | Prerequisites: None. Corequisites: Enrollment in the Physical Therapist Assisting program or permission of Department Chair. | PTA102 offered as Credit (P) No credit (Z) basis. PTA102 may be repeated for a total of eight (8) credit hours. | Occ | LEC 1.0 1.0 1.0 | S |
| PTA103 | 2018 Fall | Kinesiology | | Physical principles of human motion. Emphasis on structure, movement, and stability of specific joints. Normal and abnormal human locomotion. Stabilizing and motion producing forces upon extremities and the spine including muscles, ligaments, and cartilage. Discussion of common joint deformities. Kinesiological analysis of functional movement of the human body. | Prerequisites: Admission to the Physical Therapist Assisting program or permission of the Program Director. | Occ | | LEC 3.0 3.0 3.0 | S |
| PTA104 | 2018 Fall | Musculo-Skeletal Assessment Techniques | | Theory and principles of goniometry and manual muscle testing. Measure range of motion of joints and strength of muscles of the head, face, neck, trunk and extremities. Normal range of motion of the spine and | Prerequisites: Admission to the Physical Therapist Assisting program or permission of the Program Director. | | | LAB 1.5 4.5 4.5 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | extremities. Assess posture and common postural deviations. Palpate and identify pertinent bony and soft tissue structures. Document results of goniometric measurement, muscle testing, palpation and posture assessment. Perform data collection in a time efficient manner following the plan of care established by the supervising physical therapist. Communicate effectively with patients and the supervising physical therapist. | | | | | |
| PTA152 | 2018 Fall | Musculoskeletal Kinesiology and Assessment Techniques in Sonographic Imaging | | Joint movements and planes of motion. Normal anatomy of the extremities. Tissue physiology. Pathological structures and their relationships. External palpation and relation to imaging. | Prerequisites: Admission to Diagnostic Medical Sonography program or permission of the Program Director. | | | L+L 4.0 6.0 6.0 | T |
| PTA200 | 2018 Fall | Patient Mobility Techniques | | Theory, principles and practice of proper body mechanics. Principles and techniques of gait training, bed mobility and transfers, wheelchair mobility. Theory, principles, and techniques of therapeutic exercise. Patient instruction, data collection, assistive devices and equipment used by the physical therapist assistants and their patients. Safety and first aid in physical therapy practice settings including contraindications for therapeutic interventions. Document physical therapy interventions. Perform physical therapy interventions in a time efficient manner following the plan of care | Prerequisites: A grade of C or better in (PTA101, PTA103, and PTA104) or permission of the Program Director. | Occ<br><br>Occ | | LEC 4.0 2.0 2.0 LAB 0.0 6.0 6.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | established by the supervising physical therapist. Communicate effectively with patients and the supervising physical therapist. | | | | | |
| PTA202 | 2018 Fall | Therapeutic Modalities | | Stages of inflammation responses and tissue repair. Theories on pain. Guidelines for patient positioning and safety. Physiological effects of therapeutic modalities. Principles and application of thermal agents. Apply superficial and deep thermal agents, cryotherapy, ultrasound, electromagnetic radiation, massage, hydrotherapy, light, intermittent venous compression therapies, and traction. Indications and contraindications for treatment methods. Concepts in research in physical therapy. Document physical therapy interventions. Perform physical therapy interventions including relevant data collection in a time efficient manner following the plan of care established by the supervising physical therapist. Communicate effectively with patients and the supervising physical therapist. | Prerequisites: A grade of C or better in (PTA101, PTA103, and PTA104) or permission of the Program Director. | Occ | | LEC 5.0 3.0 3.0 LAB 0.0 6.0 6.0 | T |
| PTA203 | 2022 Fall | Clinical Pathology | | Terminology and definitions used in discussion of human pathology. Disease processes frequently encountered in physical therapy practice. Functional anatomy, select medical tests for diagnoses, and medication and effects in providing physical therapy. Principles of disease prevention. | Prerequisites: Admission to the Physical Therapist Assisting program or permission of the Program Director. | | | LEC 3.0 3.0 3.0 | S |



Occ

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| PTA204 | 2023 Fall | Preclinical Practicum I | | Supervised physical therapy clinical practice in the Healthcare United at GateWay (HUG) Clinic with moderate to maximal supervision with emphasis on performance of data collection and treatment interventions for a diverse patient population in an outpatient treatment setting. | Prerequisites: A grade of C or better in PTA101, PTA103, and PTA104. Corequisites: PTA202. | | Occ | LAB 0.5 1.5 1.5 | T |
| PTA205 | 2013 Fall | Communication in Physical Therapy | | Communication skills in the Physical Therapy setting. Self-image in communication. Active listening, responding to problems, body language, patient interview skills. Communicating with chronically ill and dying patients and their families. Communicating with persons with disabilities. Cultural differences in communication and views of Health Care. | Prerequisites: Admission to the Physical Therapist Assisting program or permission of Department or Division. | | | LEC 1.5 1.5 1.5 | S |
| PTA206 | 2023 Fall | Clinical Practicum I | | Clinical experience with advanced beginner or higher level of performance for physical therapist assisting students. Application of physical therapy skills and techniques in specific clinical settings including outpatient, hospital, rehabilitation and skilled nursing care. | Prerequisites: A grade of C or better in (PTA200, PTA202, PTA203, PTA204, and PTA205) or permission of the Program Director. Corequisites: PTA207. | Occ | Occ | LAB 3.0 15.0 0.0 | C |
| PTA207 | 2018 Fall | Clinical Practicum Seminar I | | Integration of non-clinical aspects of clinical practicums with clinical performance in Clinical Practicum I. Emphasis on clinical journaling, in-service and case presentations, and documentation of patient care interventions. | Prerequisites: Admission to the Physical Therapist Assisting program or permission of the Program Director. Corequisites: PTA206. | | Occ | LEC 1.0 1.0 1.0 | S |
| PTA208 | 2018 Fall | Rehabilitation of Special Populations | | Rehabilitation strategies for brain injured patients. Neurodevelopmental treatment emphasized. | Prerequisites: A grade of C or better in (PTA200, PTA202, PTA203, and PTA205), | | | LEC 5.0 3.0 3.0 LAB 0.0 6.0 6.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Theories and alternative physical therapy treatment for neurologically impaired patients. Clinical applications and treatment of patients. Proprioceptive neuromuscular facilitation (PNF), cardiopulmonary rehabilitation, spinal cord injury and amputee management, and prosthetics/orthotics. Motor development and changes across the lifespan including developmental motor milestones and normal reflexes and reactions. Emphasis on proficiency in hands-on techniques. | or permission of the Program Director. | | | | |
| PTA210 | 2018 Fall | Orthopedic Physical Therapy | | Response of human bone and soft-tissue to injury. Orthopedic and medical management and physical therapy interventions for common injuries of the extremities and spine. Common orthopedic surgeries. Joint mobilization techniques. Body mechanics and therapeutic exercise programs. Documentation procedures. Perform physical therapy interventions including relevant data collection in a time efficient manner following the plan of care established by the supervising physical therapist. Communicate effectively with patients and the supervising physical therapist. | Prerequisites: A grade of C or better in (PTA206 and PTA207) or permission of the Program Director. | Occ | | LEC 4.0 3.0 3.0 LAB 0.0 3.0 3.0 | T |
| PTA214 | 2018 Fall | Electromodalities | | Electrical currents for physical therapy. Types of human muscular contractions. Safety stressed. Application of electrical currents for physical | Prerequisites: A grade of C or better (PTA206 and PTA207) or permission of the Program Director. | | | LEC 2.5 1.5 1.5 LAB 0.0 3.0 3.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | therapy. Uses and implications of electrical nerve tests. Biophysical effects of transcutaneous electrical nerve stimulation. Use of low volt, high volt, and interferential electrical stimulation devices. Neuromuscular electrical stimulation (NMES). Use of biofeedback in physical therapy. Perform physical therapy interventions using including relevant data collection in a time efficient manner following the plan of care established by the supervising physical therapist. Communicate effectively with patients and the supervising physical therapist. | | | | | |
| PTA215 | 2010 Summer I | Wound Care for the Physical Therapist Assistant | | Introduction to current concepts in wound care management techniques for the physical therapist assistant including skin anatomy and physiology, principles of healing, types of wounds, and therapeutic interventions. | Prerequisites: Admission to the Physical Therapist Assisting program or permission of Department or Division. | | | LEC 1.0 1.0 1.0 | S |
| PTA217 | 2018 Fall | Clinical Neurology | | Anatomy and function of the brain, spinal cord and peripheral nervous system. Review of motor and sensory innervation and spinal tracts. Specific diseases of the central and peripheral nervous systems related to the physical therapy plan of care. Emphasis on clinical signs and symptoms of neurological disorders. | Prerequisites: A grade of C or better in (PTA101, PTA103, PTA104, PTA200, PTA203, and PTA206) or permission of the Program Director. | Occ | Occ | LEC 2.0 2.0 2.0 | S |
| PTA230 | 2018 Fall | Physical Therapy Seminar | | Current practices and issues in physical therapy. Clinical problem solving, ethics, legal aspects, reimbursement, | Prerequisites: Admission to the Physical Therapist Assisting program or | | | LEC 2.0 2.0 2.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | management, research. Resume preparation and job interviewing skills. Stress management techniques. Total quality management principles. Employment issues. Prevention of fraud and abuse. Career and professional development. Job descriptions, performance assessments, and wage and salary administration. | permission of the Program Director. | | | | |
| PTA240 | 2018 Fall | Peripheral Joint Mobilization Techniques for the Physical Therapist Assistant | | Peripheral joint mobilization techniques for the upper and lower extremity joints. Concepts, indications, and contraindications. Documentation. Statutes and policies regarding joint mobilizations. | Prerequisites: Certification or licensure as a Physical Therapist Assistant and six months clinical practice. | | Occ | L+L 1.0 1.0 1.0 | T |
| PTA279 | 2023 Fall | Preclinical Practicum II | | More advanced supervised physical therapy clinical practice in the Healthcare United at GateWay (HUG) Clinic with minimal supervision with emphasis on performance of data collection and treatment interventions for a diverse patient population in an outpatient treatment setting. | Prerequisites: A grade of C or better in PTA206. Corequisites: PTA210. | | Occ | LAB 0.5 1.5 1.5 | T |
| PTA280 | 2023 Fall | Clinical Practicum II | | Clinical experience requiring an intermediate or higher level of clinical performance by the physical therapist assisting students. Application of physical therapy skills and techniques in various clinical settings including outpatient, hospital, rehabilitation and skilled nursing. | Prerequisites: A grade of C or better in (PTA208, PTA210, PTA214, PTA217, and PTA279) or permission of Program Director. Corequisites: PTA281. | | Occ | LAB 3.0 15.0 0.0 | C |
| PTA281 | 2018 Fall | Clinical Practicum Seminar II | | Integration of non-clinical aspects of clinical practicums with clinical performance in Clinical Practicum II. Emphasis on clinical | Prerequisites: Admission to the Physical Therapist Assisting program, or permission of | | Occ | LEC 1.0 1.0 1.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | journaling, in-service and case presentations, and documentation of patient care interventions. | Department or Division. Corequisites: PTA280. | | | | |
| PTA290 | 2022 Fall | Clinical Practicum III | | Clinical experience with entry-level performance for physical therapist assisting students. Application of physical therapy skills and techniques in specific clinical settings including outpatient, hospital, rehabilitation and skilled nursing. | Prerequisites: A grade of C or better in: PTA208, PTA210, PTA214, and PTA217 or permission of Department or Division. Corequisites: PTA292. | | Occ | LAB 3.0 15.0 0.0 | C |
| PTA292 | 2018 Fall | Clinical Practicum Seminar III | | Integration of non-clinical aspects of clinical practicums with clinical performance in Clinical Practicum III. Emphasis on clinical journaling, in-service and case presentations, and documentation of patient care interventions. | Prerequisites: Admission to the Physical Therapist Assisting program or permission of the Department or Division. Corequisites: PTA290. | | Occ | LEC 1.0 1.0 1.0 | S |
| PTA295 | 2018 Fall | Physical Therapist Assistant Examination Review | | Preparation for the physical therapist assistant examination administered by the Federation of State Boards of Physical Therapy. Topics include physical therapy management of patients with musculoskeletal, neurological, integumentary and cardiopulmonary system diseases and complications. Therapeutic modalities, therapeutic exercise, functional mobility activities, and data collection techniques. Documentation and ethical/legal considerations in practice of physical therapy. | Prerequisites: Admission to the Physical Therapist Assisting program or permission of the Program Director. | | Occ | LEC 2.0 2.0 2.0 | S |
| QCT296WA | 2002 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average | | | LAB 1.0 5.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | objectives of the students. COMMON COMPETENCY COURSE | and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor. | | | | |
| QCT296WB | 2002 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor. | | Occ | LAB 2.0 10.0 0.0 | Z |
| QCT296WC | 2002 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to | Occ | | LAB 3.0 15.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | students major or career interest or with permission of Instructor. | | | | |
| QCT296WD | 2002 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor. | | Occ | LAB 4.0 20.0 0.0 | Z |
| QCT298AA | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | Prerequisites: Permission of Program Director or Instructor. | | Occ | LAB 1.0 1.0 0.0 | Z |
| QCT298AB | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment | Prerequisites: Permission of Program Director or Instructor. | | Occ | LAB 2.0 2.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | | | | | |
| QCT298AC | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | Prerequisites: Permission of Program Director or Instructor. | | Occ | LAB 3.0 3.0 0.0 | Z |
| QST200 | 2023 Spring | Introduction to Queer Studies | | Provides a general introduction to queer studies, including review of queer theory, intersectionality, social and political institutions, representation, and identity related to sex, gender, and sexual orientation. | Prerequisites: A grade of C or better in ENG101 or ENG107. | | Acad | LEC 3.0 3.0 3.0 | S |
| QST210 | 2023 Spring | Queer Media Studies | | Brings together media studies and queer studies to examine the history and ongoing development of media produced by queer and non-queer creators in national and global contexts. Interrogates the relationship between sex, gender, and sexuality as it is and has been represented in media. Offers an overview of popular media and queerness. | Prerequisites: A grade of C or better in ENG101 or ENG107. | | Acad | LEC 3.0 3.0 3.0 | S |
| RAD100 | 2020 Fall | Introduction to Radiologic Science and Health Care | | Provides an overview of the foundations of radiography and the practitioner's role in | Prerequisites: Admission to the | | | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | health care delivery. Principles, practices and policies of health care organizations will be examined and discussed in addition to the professional responsibilities of the radiographer. | Medical Radiography Program. | | | | |
| RAD101 | 2020 Fall | Ethics and Law in the Radiologic Sciences | | Foundation in ethics and law related to the practice of medical imaging. An introduction to terminology, concepts and principles will be presented. | Prerequisites: Admission to the Medical Radiography Program. | | Occ | LEC 1.0 1.0 1.0 | S |
| RAD102 | 2020 Fall | Structured Diagnostic Medical Imaging Skills Enhancement I | | Structured medical imaging cognitive and non-cognitive learning, study skills, and strategies to help students achieve success in their respective imaging courses. Medical imaging learning process and critical thinking application skills are emphasized. | Prerequisites: Admission to the Medical Radiography Program. | | Occ | LEC 1.0 1.0 1.0 | S |
| RAD103 | 2020 Fall | Radiation Protection in Radiologic Technology | | Content presents an overview of the principles of radiation protection, including the responsibilities of the radiographer for patients, personnel and the public. Radiation health and safety requirements of federal and state regulatory agencies, accreditation agencies and health care organizations are incorporated. | Prerequisites: Admission to the Medical Radiography Program. | | Occ | LEC 2.0 2.0 2.0 | S |
| RAD104 | 2020 Fall | Imaging Equipment | | Content establishes a knowledge base in radiographic, fluoroscopic and mobile equipment requirements and design. Content also provides a basic knowledge of quality control. | Prerequisites: Admission to the Medical Radiography Program. | | Occ | LEC 2.0 2.0 2.0 | S |
| RAD105 | 2020 Fall | Radiation Production and Principles of Exposure | | Content establishes a basic knowledge of atomic structure and terminology and a base in | Prerequisites: Admission to the | | | LEC 2.5 2.0 2.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | technical factors that govern the image production process. Also presented are the nature and characteristics of radiation, x-ray production and the fundamentals of photon interactions with matter. | Medical Radiography Program. | | | LAB 0.0 1.5 1.5 | |
| RAD106 | 2020 Fall | Patient Care in Radiologic Sciences I | | Content provides the foundational concepts of optimal patient care, including consideration for the physical and psychological needs of the patient and family. Routine and emergency patient care procedures are described, as well as infection control procedures using standard precautions. The role of the radiographer in patient education is identified. | Prerequisites: Admission to the Medical Radiography Program. | | | LEC 2.5 2.0 2.0 LAB 0.0 1.5 1.5 | T |
| RAD107 | 2020 Fall | Radiographic Procedures I | | Content provides the knowledge base necessary to perform standard imaging procedures. Focus is on upper extremities, lower extremities, shoulder, and thorax. Consideration is given to the evaluation of optimal diagnostic images. | Prerequisites: Admission to the Medical Radiography Program. | Occ | | LEC 3.0 3.0 3.0 LAB 0.0 3.0 3.0 | T |
| RAD109 | 2020 Fall | Radiography Practicum I | | Clinical practice experience to develop and apply concepts and theories in the performance of radiologic procedures. Concepts of team practice, patient-centered clinical practice, and professional development are discussed, examined and evaluated. Focus is on patient care and assessment and competent performance of radiologic imaging. Imaging procedures are performed under the appropriate supervision of a qualified radiographer. | Prerequisites: Admission to the Medical Radiography Program. | Occ | Occ | LAB 3.5 19.0 0.0 | C |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| RAD112 | 2020 Fall | Structured Diagnostic Medical Imaging Skills Enhancement II | | Focus is on the application of structured medical imaging cognitive and non-cognitive learning, study skills, and strategies to help students achieve success in their respective imaging courses and their first clinical experience. Medical imaging learning process and critical thinking application skills introduced in the Structured Diagnostic Medical Imaging Skills Enhancement I course are reinforced; and advanced concepts are introduced. | Prerequisites: Admission to the Medical Radiography Program. | | Occ | LEC 1.0 1.0 1.0 | S |
| RAD114 | 2020 Fall | Digital Image Acquisition and Display I | | Imparts an understanding of the components, principles and operation of digital imaging systems found in diagnostic radiology. Factors that impact image acquisition, display, archiving and retrieval are discussed. | Prerequisites: Admission to the Medical Radiography Program. | | Occ | LEC 2.0 2.0 2.0 | S |
| RAD116 | 2020 Fall | Patient Care in Radiologic Sciences II | | Content provides advanced concepts of optimal patient care, including consideration for assessment of vital signs. Trauma and emergency patient care procedures are described, as well as surgical asepsis concepts. The role of the radiographer in surgical settings is also discussed. | Prerequisites: Admission to the Medical Radiography Program. | | | LEC 2.5 2.0 2.0 LAB 0.0 1.5 1.5 | T |
| RAD117 | 2020 Fall | Radiographic Procedures II | | Content provides the knowledge base necessary to perform standard imaging procedures. Focus is on abdomen, pelvic girdle, vertebral column, and cranium. Contrast studies specific to the gastrointestinal system are also addressed. Consideration is given to the evaluation of optimal diagnostic images. | Prerequisites: Admission to the Medical Radiography Program. | Occ | | LEC 3.0 3.0 3.0 LAB 0.0 3.0 3.0 | T |



Occ

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| RAD119 | 2020 Fall | Radiography Practicum II | | Clinical practice experience to develop, apply, reinforce, and integrate concepts and theories in the performance of radiologic procedures. Concepts of team practice, patient-centered clinical practice, and professional development are practiced, examined, and evaluated. Focus is on patient care and assessment and competent performance of radiologic imaging. Imaging procedures are performed under the appropriate supervision of a qualified radiographer. | Prerequisites: Admission to the Medical Radiography Program. | | Occ | LAB 6.0 36.0 0.0 | C |
| RAD203 | 2020 Fall | Radiation Biology | | Provides an overview of the principles of the interaction of radiation with living systems. Radiation effects on molecules, cells, tissues and the body as a whole are presented. Factors affecting biological response are presented, including acute and chronic effects of radiation. | Prerequisites: Admission to the Medical Radiography Program. | | Occ | LEC 2.0 2.0 2.0 | S |
| RAD206 | 2020 Fall | Pharmacology and Venipuncture | | Content provides basic concepts of pharmacology, venipuncture and administration of diagnostic contrast agents and intravenous medications. The appropriate delivery of patient care during these procedures is emphasized. | Prerequisites: Admission to the Medical Radiography Program. | | Occ | LEC 1.0 1.0 1.0 LAB 0.0 1.0 1.0 | T |
| RAD207 | 2020 Fall | Radiographic Procedures III | | Content provides the knowledge base necessary to perform advanced imaging procedures. Focus is on special studies, trauma, and surgical procedures. Contrast studies specific to the urinary system are also addressed. Consideration is given to the | Prerequisites: Admission to the Medical Radiography Program. | | Occ | LEC 3.0 3.0 3.0 LAB 0.0 1.5 1.5 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | evaluation of optimal diagnostic images. | | | | | |
| RAD208 | 2020 Fall | Image Analysis I | | Provides a basis for analyzing radiographic images. Included are the importance of optimal imaging standards, the use of problem-solving techniques for image evaluation, and the factors that can affect image quality. Focus on the analysis of images for the upper extremity, shoulder, lower extremity, bony thorax, upper airway, and chest. | Prerequisites: Admission to the Medical Radiography Program. | | Occ | LEC 1.0 1.0 1.0 | S |
| RAD209 | 2020 Fall | Radiography Practicum III | | Continued clinical practice experience to further develop, apply, reinforce, and integrate concepts and theories in the performance of radiologic procedures. Concepts of team practice, patient-centered clinical practice, and professional development are practiced, examined, and evaluated. Focus remains on patient care and assessment and competent performance of radiologic imaging. New experiences in special procedural environments. Imaging procedures are performed under the appropriate supervision of a qualified radiographer. | Prerequisites: Admission to the Medical Radiography Program. | | Occ | LAB 5.0 29.0 0.0 | C |
| RAD212 | 2020 Fall | Structured Diagnostic Medical Imaging Skills Enhancement III | | Use of skills and resources for preparing for the American Registry of Radiologic Technologists (ARRT) exam. Utilization of career and educational planning resources is emphasized. | Prerequisites: Admission to the Medical Radiography Program. | | Occ | LEC 1.0 1.0 1.0 | S |
| RAD214 | 2020 Fall | Digital Image Acquisition and Display II | | Imparts an understanding of the image acquisition errors related to components, principles and operation of digital imaging systems found | Prerequisites: Admission to the Medical Radiography Program. | | Occ | LEC 2.0 2.0 2.0 LAB 0.0 1.5 1.5 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | in diagnostic radiology. Principles of digital system quality assurance and maintenance are presented. The concept of "as low as reasonably achievable" (ALARA) as it relates to digital imaging systems is also covered. | | | | | |
| RAD217 | 2020 Fall | Radiographic Pathology and Additional Modalities | | Introduces concepts related to disease and etiological considerations with emphasis on radiographic appearance of disease. Additional modalities are also discussed. | Prerequisites: Admission to the Medical Radiography Program. | | | LEC 2.0 2.0 2.0 | S |
| RAD218 | 2020 Fall | Image Analysis II | | Provides a basis for analyzing radiographic images. Included are the importance of optimal imaging standards, the use of problem-solving techniques for image evaluation, and the factors that can affect image quality. Focus on analysis of images for the abdomen, pelvic girdle, vertebral column, cranium, and special studies. | Prerequisites: Admission to the Medical Radiography Program. | Occ | | LEC 1.0 1.0 1.0 | S |
| RAD219 | 2020 Fall | Radiography Practicum IV | | Continued clinical practice experience to further develop, apply, reinforce, and integrate concepts and theories in the performance of radiologic procedures. Concepts of team practice, patient-centered clinical practice, and professional development are practiced, examined, and evaluated. Focus remains on patient care and assessment and competent performance of radiologic imaging. Continued experiences in special procedural environments. Imaging procedures are performed under the appropriate | Prerequisites: Admission to the Medical Radiography Program. | Occ<br>Occ | | LAB 5.0 29.0 0.0 | C |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | supervision of a qualified radiographer. | | | | | |
| RBT296WA | 2002 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor. | | Occ | LAB 1.0 5.0 0.0 | Z |
| RBT296WB | 2002 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor. | | Occ | LAB 2.0 10.0 0.0 | Z |
| RBT296WC | 2002 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or | | Occ | LAB 3.0 15.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor. | | | | |
| RBT296WD | 2002 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor. | | Occ | LAB 4.0 20.0 0.0 | Z |
| RBT298AA | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | Prerequisites: Permission of Program Director or Instructor. | | Occ | LAB 1.0 1.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| RBT298AB | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | Prerequisites: Permission of Program Director or Instructor. | | Occ | LAB 2.0 2.0 0.0 | Z |
| RBT298AC | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | Prerequisites: Permission of Program Director or Instructor. | | Occ | LAB 3.0 3.0 0.0 | Z |
| RDG071 | 2014 Spring | Basic Reading | | Provide opportunities for practice and application of basic reading skills. Includes phonic analysis, word recognition, structural analysis, use of context clues, and use of dictionary, reinforced through practical application. Development of vocabulary required for success in content area courses. Emphasis on literal comprehension and | Prerequisites: Appropriate reading placement test score or a grade of C or better in ESL/RDG046 or permission of Instructor. | Recommended for all students with limited reading experiences. | Acad | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | development of inferential interpretation. | | | | | |
| RDG079 | 1995 Fall | Vocabulary Improvement | | Systematic methods of increasing vocabulary by emphasizing the most important affixes, Latin, and Greek roots. Content analysis techniques. Common foreign words and phrases used in English. Specialized vocabularies of areas of study and interest. Interpretation of information in dictionary entries. Examination ofwords frequently confused and misused. College preparatory level | Prerequisites: None. | | Acad | LEC 2.0 2.0 2.0 | S |
| RDG081 | 2014 Spring | Reading Improvement | | Designed to improve basic reading skills. Includes word recognition, interdisciplinary vocabulary development, recognizing patterns of organization, interpreting inference. Reviews interpreting graphic materials. Emphasis on identifying main ideas and related details. | Prerequisites: Appropriate reading placement test score or a grade of C or better in RDG071 or permission of Instructor. | | Acad | LEC 3.0 3.0 3.0 | S |
| RDG081AC | 2013 Fall | Reading Fundamentals Applications | | Continues students' expansion of vocabulary through the use of additional vocabulary improvement. Expands identification of main ideas and related details to longer reading selections. Reviews the following or written directions and the understanding of graphic materials. | Prerequisites: Placement test scores or permission of Instructor. | | Acad | LEC 1.0 1.0 1.0 | S |
| RDG085 | 2023 Fall | Adult Reading Skills for the Workplace | | Small cooperative group settings used to discuss readings to enhance comprehension, oral communication, and problem solving skills. Emphasis on reading and thinking skills as applied to overall job | Prerequisites: Appropriate score on placement test. | | | LEC 1.0 1.0 1.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | performance. Using context clues, constructing graphs, following written directions, using diagrams and flow charts, locating main ideas, recognizing cause and effect, and identifying logical order in written text | | | | | |
| RDG086 | 2023 Fall | Problem Solving and Reading in the Workplace | | Small cooperative group setting used to discuss readings to enhance comprehension, oral communication, and problem solving skills. Emphasis on evaluative reading and thinking skills as applied to overall job performance. Previewing; determining main points and purpose of general and work-related materials; interpreting charts and graphs. | Prerequisites: Appropriate score on placement test or RDG085. | | | LEC 1.0 1.0 1.0 | S |
| RDG095 | 2014 Fall | Intensive Foundations for College Reading | | Accelerated format to improve basic reading skills, study skills, and information literacy skills including vocabulary development, main idea identification, patterns of organization recognition, and comprehension improvement. | Prerequisites: Appropriate reading placement test score or a grade of B or better in RDG071 or permission of Instructor. | RDG095 is an accelerated and intensive learning program for students and meets the requirements for RDG081 and RDG091 in one semester. | Acad | LEC 6.0 6.0 6.0 | S |
| RDG100 | 2024 Spring | Successful College Reading | | Emphasis on reading study strategies for any introductory class in any subject area. Introduction to Learning Management System (LMS), how to successfully read course textbooks and assessments, how to navigate information technology and development of academic vocabulary. | Prerequisites: A grade of C or better in ALT100, or RDG081, or ESL202, or appropriate reading placement, or permission of Instructor. Corequisites: Any 100-level course in another content area, or permission of Instructor. | RDG100 satisfies RDG091 requirement. RDG100 may be repeated for a total of twelve (12) credit hours. | Acad | LEC 3.0 3.0 3.0 | S |
| RDG100AA | 2016 Spring | Successful College Reading - Organizing for Success | | Includes goal setting, time management, college orientation, reading content materials. Emphasis on organizational skills and strategies for any introductory | Prerequisites: A grade of C or better in RDG081 or appropriate reading placement score or permission of Instructor. Corequisites: | | | LEC 1.0 1.0 1.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | class in any subject area. Introduction to Learning Management System (LMS), how to organize and manage college reading assignments, and how to navigate information literacy using campus resources. | Any 100-level course in another content area or permission of Instructor. | | | | |
| RDG100AB | 2016 Spring | Successful College Reading - Notetaking and Studying for Success | | Emphasis on reading study and notetaking techniques applicable to any introductory class in any subject area. Includes effective use of textbooks, notetaking, and development of academic vocabulary. | Prerequisites: A grade of C or better in RDG081 or appropriate reading placement score or permission of Instructor. Corequisites: Any 100-level course in another content area or permission of Instructor. | | Acad | LEC 1.0 1.0 1.0 | S |
| RDG100AC | 2016 Spring | Successful College Reading - Taking College Exams with Success | | Emphasis on successful lecture notetaking and synthesis of information, studying skills and strategies, types of exams, and exam taking strategies for success in any college introductory class. | Prerequisites: A grade of C or better in RDG081 or appropriate reading placement score or permission of Instructor. Corequisites: Any 100-level course in another content area or permission of Instructor. | | Acad | LEC 1.0 1.0 1.0 | S |
| RDG100LL | 2020 Summer | Disciplinary Literacy Lab | | Supplemental instruction for college-level discipline courses. Focus on developing effective reading processes to address a range of literacy needs including reading, writing, digital, numerical, financial and informational literacies. | Prerequisites: None. Corequisites: Any 100-level course in another content area or permission of Instructor. | | Acad | LAB 1.0 3.0 3.0 | T |
| RDG111 | 2020 Fall | Successful College Reading for Cultural or Social Sciences | | Emphasis on reading study strategies for an introductory class in the Cultural and Social Sciences. Introduction to Learning Management System (LMS), how to successfully read course textbook and assessments and development of academic vocabulary. | Prerequisites: A grade of C or better in ALT100 or RDG081 or appropriate reading placement score or permission of Instructor. Corequisites: Any 100-level course in Cultural Science or Social Science area or permission of Instructor. | RDG111 satisfies RDG091 requirement. | Acad | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| RDG112 | 2020 Fall | Successful College Reading for Life Sciences, Mathematics, Physical Sciences or Technology | | Emphasis on reading study strategies for an introductory class in the Life Science, Mathematics, Physical Sciences, or Technology. Introduction to Learning Management System (LMS), how to successfully read course textbook and assessments and development of academic vocabulary. | Prerequisites: A grade of C or better in ALT100 or RDG081 or appropriate reading placement or permission of Instructor. Corequisites: Any 100-level class in the Life Sciences or Mathematics or Physical Sciences or Technology or permission of Instructor. | RDG112 satisfies RDG091 requirement. | Acad | LEC 3.0 3.0 3.0 | S |
| RDG113 | 2020 Fall | Successful College Reading for Communication, Humanities or Behavioral Science | | Emphasis on reading study strategies for an introductory class in the Communication, Humanities, or Behavioral Science. Introduction to Learning Management System (LMS), how to successfully read course textbook and assessments and development of academic vocabulary. | Prerequisites: A grade of C or better in ALT100 or RDG081 or appropriate reading placement or permission of Instructor. Corequisites: Any 100-level course in Communication or Humanities or Behavioral Sciences or permission of Instructor. | RDG113 satisfies RDG091 requirement. | Acad | LEC 3.0 3.0 3.0 | S |
| RDG282AA | 2014 Summer | Service-Learning Experience in Reading | | Unpaid Service-Learning (SL) experience, completed with approved community partner. | Prerequisites: Permission of Instructor. | RDG282AA may be repeated for a total of six (6) credit hours. Standard grading available according to procedures outlined in catalog. | Acad | LAB 1.0 1.0 0.0 | L |
| RDG282AB | 2014 Summer | Service-Learning Experience in Reading | | Unpaid Service-Learning (SL) experience, completed with approved community partner. | Prerequisites: Permission of Instructor. | RDG282AB may be repeated for a total of six (6) credit hours. Standard grading available according to procedures outlined in catalog. | Acad | LAB 2.0 2.0 0.0 | L |
| RDG282AC | 2014 Summer | Service-Learning Experience in Reading | | Unpaid Service-Learning (SL) experience, completed with approved community partner. | Prerequisites: Permission of Instructor. | RDG282AC may be repeated for a total of six (6) credit hours. Standard grading available according to procedures outlined in catalog. | Acad | LAB 3.0 3.0 0.0 | L |
| RDG296WA | 2023 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a | | | LAB 1.0 5.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor. | | | | |
| RDG296WB | 2023 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor. | | Acad | LAB 2.0 10.0 0.0 | Z |
| RDG296WC | 2023 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest | | Acad | LAB 3.0 15.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | or with permission of the Instructor. | | | | |
| RDG296WD | 2023 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor. | | Acad | LAB 4.0 20.0 0.0 | Z |
| RDG298AA | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | Prerequisites: Permission of Program Director or Instructor. | | Acad | LAB 1.0 1.0 0.0 | Z |
| RDG298AB | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. | Prerequisites: Permission of Program Director or Instructor. | | Acad | LAB 2.0 2.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | | | | | |
| RDG298AC | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | Prerequisites: Permission of Program Director or Instructor. | | Acad | LAB 3.0 3.0 0.0 | Z |
| REA150 | 2018 Fall | Supervisory Appraiser/Appraiser Trainee | | Examine the national minimum requirements, responsibilities, and expectations for Trainee Appraisers and Supervisory Appraisers that are included in the Appraiser Qualifications Board (AQB) Criteria. | Prerequisites: None. | | Occ | LEC 1.0 1.0 1.0 | S |
| REA179 | 2021 Spring | Real Estate Principles I | | Basics of real estate principles including introduction to the profession and license law, definition of real property, legal descriptions, rights and interests in property, ownership, contracts, title transfer and escrow procedures. Also covers an introduction to water rights and environmental hazards as well as procedures for various real estate calculations. | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| REA180 | 2021 Spring | Real Estate Principles II | | Advanced work in real estate including governmental restrictions and limitations, | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | property management, insurance and warranties, appraisal procedures, financing and loan security instruments. Also covers Deed of Trust foreclosure options and consumer protection provisions. | | | | | |
| REA201 | 2021 Spring | Real Estate Principles I and II | | Comprehensive survey of real estate principles to include careers in real estate, nature and description of real estate, rights and interests in land, forms of real property ownership, forms of business organization, methods of title transfer, title search and insurance, contract law, real estate sales contracts, mortgage and notes payable, deeds of trust, lending practices, loans and consumer rights, sources of financing real estate loans, types of financing instruments, real property taxes and assessments, title closing, escrow and settlement procedures, property management and real estate leases, real estate appraisal, state licensing laws and professional affiliations, real estate brokerage, real estate agency, fair housing and equal credit laws, types of residential real estate, real property insurance, land use control, economics of real estate, and investment considerations. | Prerequisites: None. | | Occ | LEC 6.0 6.0 6.0 | S |
| REA205 | 2022 Fall | Introduction to Commercial Real Estate | | Introduces key features of the commercial real estate industry and its differences from residential real estate. Provides residential agents | Prerequisites: None. | | Occ | LEC 2.0 2.0 2.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | with a starting point to transition into commercial real estate. | | | | | |
| REA208 | 2023 Fall | Ethics in Commercial Real Estate | | Course covers ethics in commercial real estate. Review of National Association of Realtors (NAR) code of ethics and scenarios common in commercial real estate transactions. | Prerequisites: None. | | Occ | LEC 1.0 1.0 1.0 | S |
| REA211 | 2023 Fall | Compliance in Commercial Real Estate | | Course covers compliance in commercial real estate. Review of federal, state, and municipal regulations and scenarios common in commercial real estate transactions. | Prerequisites: None. | | Occ | LEC 1.0 1.0 1.0 | S |
| REA214 | 2023 Fall | Finances in Commercial Real Estate | | Course covers finances in commercial real estate, including funding sources, taxes, and relevant data and analytic tools. Also includes review of financial presentations to clients. | Prerequisites: None. | | Occ | LEC 1.0 1.0 1.0 | S |
| REA220 | 2023 Fall | Multiunit Properties in Commercial Real Estate | | This course covers various considerations of the multiunit commercial properties industry sector. Overview of the types of properties, financial considerations, transaction processes, resources, and compliance considerations. | Prerequisites: None. | | Occ | LEC 1.0 1.0 1.0 | S |
| REA225 | 2023 Fall | Industrial Properties in Commercial Real Estate | | Covers various aspects of the industrial commercial properties industry sector. Overview of the types of properties, financial considerations, transaction processes, resources, and compliance considerations. | Prerequisites: None. | | Occ | LEC 1.0 1.0 1.0 | S |
| REA230 | 2023 Fall | Land Properties in Commercial Real Estate | | Covers various aspects of the land commercial properties industry sector. Overview of the types of land and land use, financial considerations, | Prerequisites: None. | | Occ | LEC 1.0 1.0 1.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | transaction processes, resources, and compliance considerations. | | | | | |
| REA235 | 2023 Fall | Commercial Real Estate Essential Tools | | Covers various tools for research, analysis, and presentation of data relevant to commercial real estate. | Prerequisites: None. | | Occ | LEC 1.0 1.0 1.0 | S |
| REA240 | 2022 Fall | Introduction to Commercial Property Management | | Provides an overview of the commercial property management industry. Covers the key aspects of commercial property management, including compliance requirements, financial considerations, and ethical practices. Includes application of commercial property management knowledge and skills in a variety of settings such as medical, office, mixed-used, industrial, bio-science, and non-profit company buildings. | Prerequisites: An Arizona real estate license, or completion of MCCCD`s CCL Real Estate: Prelicense (5139N) or its equivalent, or a real estate license from another state, or completion of pre licensure coursework from another approved Arizona real estate school. | | Occ | LEC 2.0 2.0 2.0 | S |
| REA270 | 2007 Summer II | Basic Appraisal Principles | | Overview of real property concepts and characteristics, legal considerations, value influences, real estate finance, types of value, economic principles, real estate markets and analysis, and ethics in appraisal practice | Prerequisites: None. | | Occ | LEC 2.0 2.0 2.0 | S |
| REA271 | 2008 Summer I | Basic Appraisal Procedures | | Overview of real estate appraisal approaches to valuation procedures, value, property description, residential applications, commercial applications, improvement construction, home inspection, and appraisal math. Practical application of appraisal procedures including case studies, and examples | Prerequisites: A grade of C or better in REA270 or permission of Instructor. | | Occ | LEC 2.0 2.0 2.0 | S |
| REA272 | 2018 Fall | Uniform Standards of Professional Appraisal Practice (USPAP) | | Basic rules for ethical behavior and competent performance. USPAP | Prerequisites: None. | | Occ | LEC 1.0 2.0 1.7 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | requirements for state certified appraisers. Highlights role of the appraiser and implied impartiality of this role. Requirements of the Uniform Standards of Professional Appraisal Practice (USPAP) affect appraisal businesses. | | | | | |
| REA273 | 2007 Summer II | Residential Market Analysis Highest and Best Use | | Recognize and evaluate market conditions affecting the buyers' and sellers' activities in understanding and reporting values. Gather and evaluate market data. Markets, sub-markets, market segmentation, supply side analysis, demand analysis and the importance of market examination to the appraisal process | Prerequisites: None. | | Occ | LEC 1.0 1.0 1.0 | S |
| REA274 | 2007 Summer II | Residential Appraiser Site Valuation and Cost Approach | | Learn theories and methodologies for arriving at residential site values and applying the Cost Approach for new and reproduction factors. The advantages and disadvantages of using the cost methods for estimating accrued depreciation. Reading of residential building plans and specifications | Prerequisites: None. | | Occ | LEC 1.0 1.0 1.0 | S |
| REA275 | 2018 Summer | Residential Sales Comparison and Income Approaches | | Basic understanding and knowledge of the residential sales comparison and income approaches to appraisal including valuation principles and procedures applicable to these approaches. Development of market analysis, including the application and use of matched pairs and capitalization rates, and gross rent multipliers. Includes organizing market data and reconciling value indications. | Prerequisites: None. | | Occ | LEC 2.0 2.0 2.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| REA276AA | 2007 Summer II | Residential Report Writing and Case Studies I | | Exposes appraiser to realistic writing skills essential to producing realistic appraisal reports in their practice. Includes study of writing techniques, grammar, punctuation, and analytical techniques. Actual report writing and case studies are applied | Prerequisites: None. | | Occ | LEC 1.0 1.0 1.0 | S |
| REA281 | 1993 Fall | Principles of Real Estate Law | | Incidents of ownership and use of real estate, legal principles, procedures, and methods of acquisition and disposition of real estate | Prerequisites: A grade of C or better in REA179 or permission of Department or Division. | | | LEC 3.0 3.0 3.0 | S |
| REA282 | 1995 Fall | Real Estate Finance | | Study of lending institutions, including banks, savings and loans, conventional loans, Federal Housing Administration (FHA), Veterans Administration (VA) for residential, commercial and industrial property | Prerequisites: A grade of C or better in REA179 or permission of Instructor. | | Occ | LEC 3.0 3.0 3.0 | S |
| REA283 | 1995 Fall | Property Management | | Emphasizes realty laws, survey of rentals, housing needs, and rents in Phoenix metropolitan area | Prerequisites: A grade of C or better in REA179 or permission of Instructor. | Occ | Occ | LEC 3.0 3.0 3.0 | S |
| REA290AH | 2008 Summer I | Real Estate Seminar: Contract Writing | | Contract writing skills, techniques, and requirements. Writing of basic real estate contracts, including purchase offers, counter offers, sales listing agreements, and riders | Prerequisites: None. | | Occ | LEC 0.5 0.5 0.5 | S |
| REC120 | 1999 Fall | Leisure and the Quality of Life | | Overview of the historical, psychological, social, and cultural aspects of play, leisure, and recreation and their role in contemporary society. Nature of play and leisure behavior in human development within different cultures and the contribution play, recreation, and leisure make to the quality of life for individuals in today's society. | Prerequisites: None. | Course Attribute(s): General Education Designation: Social and Behavioral Sciences - [SB] | Acad | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| REC210 | 2023 Fall | Leisure Delivery Systems | | Systematic study of Delivery of Leisure Services in public, commercial, and independent sectors; particular emphasis placed on the urban setting. | Prerequisites: None. | | Acad | LEC 3.0 3.0 3.0 | S |
| REC230 | 2023 Fall | Programming of Recreation Services | | Foundations for designing, planning, delivering and managing recreational and leisure events. Emphasis on application of recreation programming concepts and practices in a variety of settings and situations for a diversity of participants. | Prerequisites: None. | | Acad | LEC 3.0 3.0 3.0 | S |
| REC250 | 2023 Fall | Recreation Leadership | | An examination of roles and methods of leadership in leisure services settings. Overview of theories and models of leadership, group dynamics, participant motivation, communication, and face-to-face leadership. Exploration of leadership contexts, including coaching and officiating sports, leading community groups and volunteers, working with persons in various life stages and with varying abilities, and leading different recreation activity areas. | Prerequisites: None. | | Acad | LEC 3.0 3.0 3.0 | S |
| REL100 | 2023 Fall | World Religions | | The development of various religions from the prehistoric to modern times. Political, economic, social and geographic relationships among world religions. Consideration of both Eastern and Western religions. | Prerequisites: None. | Course Attribute(s): General Education Designation: Global Awareness - [G] General Education Designation: Humanities, Arts and Design - [HU] Arizona Shared Unique Number SUN#: REL 1101 | Acad | LEC 3.0 3.0 3.0 | S |
| REL101 | 1999 Fall | Introduction to Religion | | Various religious expressions of humankind. Focuses on basic religious themes common to religions, such as encounter with the Holy, search for self and | Prerequisites: None. | Course Attribute(s): General Education Designation: Humanities, Arts and Design - [HU] | Acad | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | community, mystical illumination, spiritual discipline | | | | | |
| REL151 | 2012 Summer I | Religion in the Hispanic World | | Survey of various religious traditions within Spain and the Spanish-settled world. Considers the impact of and impact on both major world religions and indigenous traditions. | Prerequisites: None. | Course Attribute(s): General Education Designation: Global Awareness - [G] General Education Designation: Humanities, Arts and Design - [HU] | Acad | LEC 3.0 3.0 3.0 | S |
| REL200 | 2011 Spring | Religion and Film | | A course examining the relationships between religion and film, with particular attention to representations of religious beliefs, institutions, and practices in film and their reception by various audiences. | Prerequisites: None. | Course Attribute(s): General Education Designation: Humanities, Arts and Design - [HU] | Acad | LEC 3.0 3.0 3.0 | S |
| REL201 | 2008 Spring | Classics of Western Religions | | Academic study of the scriptures of Judaism, Christianity and Islam, and works from later phases of these religious traditions. | Prerequisites: None. | Course Attribute(s): General Education Designation: Humanities, Arts and Design - [HU] | Acad | LEC 3.0 3.0 3.0 | S |
| REL202 | 1999 Fall | Classics of Asian Religions | | Academic study of selected works from Hindu, Buddhist, Taoist and Confucian traditions. Study of cultural and concepts of the world, history, culture, and human nature as represented in these works. | Prerequisites: None. | Course Attribute(s): General Education Designation: Global Awareness - [G General Education Designation: Humanities, Arts and Design - [HU] | Acad | LEC 3.0 3.0 3.0 | S |
| REL203 | 2013 Summer I | American Indian Religions | AIS213 | An examination of the historical and cultural background of diverse lifeways and worldviews belonging to the peoples indigenous to the North American continent over time, including a study of modern day American Indian beliefs and practices. | Prerequisites: A grade of C or better in ENG101, or ENG107, or equivalent. | Course Attribute(s): General Education Designation: Cultural Diversity - [C] General Education Designation: Humanities, Arts and Design - [HU] General Education Designation: Literacy and Critical Inquiry - [L] | Acad | LEC 3.0 3.0 3.0 | S |
| REL205 | 2009 Spring | Religion and the Modern World | | Introduction to the nature and role of religious beliefs and practices in shaping the lives of individuals and societies, with particular attention to the modern world | Prerequisites: A grade of C or better in ENG101 or ENG107 or equivalent. | Course Attribute(s): General Education Designation: Humanities, Arts and Design - [HU] General Education Designation: Literacy and Critical Inquiry - [L] | Acad | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| REL206 | 2011 Fall | Religion in America | | Introduction of the rich tapestry of religious traditions and movements that have helped to shape the United States of America. Investigate how religion has impacted American culture and institutions, and how the United States has in turn transformed long-standing religious traditions. | Prerequisites: None. | Course Attribute(s): General Education Designation: Humanities, Arts and Design - [HU] | Acad | LEC 3.0 3.0 3.0 | S |
| REL207 | 2011 Spring | Ritual, Symbol, and Myth | | Introduction to the academic study of religion through the study of myths, symbols, and rituals. Includes methods and theories used by scholars to study the complex subject of religion. Attention to literate and nonliterate cultures. | Prerequisites: A grade of C or better in ENG101 or ENG107 or permission of Department or Division. | Course Attribute(s): General Education Designation: Humanities, Arts and Design - [HU] General Education Designation: Literacy and Critical Inquiry - [L] | Acad | LEC 3.0 3.0 3.0 | S |
| REL210 | 2016 Fall | Introduction to Judaism | | Introduction to the history, scriptures, practices and impact of Judaism. | Prerequisites: A grade of C or better in ENG101 or ENG107 or permission of Department or Division. | Course Attribute(s): General Education Designation: Historical Awareness - [H] General Education Designation: Humanities, Arts and Design - [HU] | Acad | LEC 3.0 3.0 3.0 | S |
| REL211 | 2010 Spring | Introduction to the Old Testament (Hebrew Bible) | | The historical context, development, canonization, historical transmission, translation and interpretation of the Hebrew Bible. | Prerequisites: None. | | Acad | LEC 3.0 3.0 3.0 | S |
| REL212 | 2017 Fall | Introduction to Islam | | Introduction to History, scriptures, practices and impact of Islam. | Prerequisites: None. | Course Attribute(s): General Education Designation: Global Awareness - [G] General Education Designation: Humanities, Arts and Design - [HU] | Acad | LEC 3.0 3.0 3.0 | S |
| REL213 | 2010 Summer I | Introduction to the Qur'an | | Historical context, development, canonization, historical transmission, translation and Interpretation of the Qur'an. | Prerequisites: None. | | Acad | LEC 3.0 3.0 3.0 | S |
| REL214 | 2009 Summer I | Introduction to Mormonism (The Church of Jesus Christ of Latter-day Saints) | | History, scriptures, doctrines, and organization of the Church of Jesus Christ of Latter-day Saints as a modern American religious movement | Prerequisites: None. | | Acad | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| REL218 | 2009 Summer I | Religion and Culture | | Examination of the relationship between religion and culture, with a particular emphasis on how culture influences religion and how religion influences culture historically and in modern settings | Prerequisites: None. | | Acad | LEC 3.0 3.0 3.0 | S |
| REL223 | 2009 Summer I | Spiritual But Not Religious | | Explore the historical, social, and cultural context for the emergence of spiritual but not religious segment, and examine who identifies with this movement and why. Identify what variety of attitudes and beliefs this group holds, and explore the varieties of private and public spiritual practices and civic engagement this group participates in | Prerequisites: None. | | Acad | LEC 3.0 3.0 3.0 | S |
| REL225 | 2010 Summer II | African-American Religions | | Leaders, movements, traditions, and controversies in the religious history of African-Americans | Prerequisites: None. | Course Attribute(s): General Education Designation: Cultural Diversity - [C] General Education Designation: Humanities, Arts and Design - [HU] | Acad | LEC 3.0 3.0 3.0 | S |
| REL230 | 1998 Fall | Religions Of Indigenous Peoples | | Sacred story as experienced in ritual and daily practice of various contemporary groups, such as African, Native American, Native Australian, Native South American, Icelandic and Japanese. Power of sacred story to create and re-create religious and social perspectives | Prerequisites: None. | | Acad | LEC 3.0 3.0 3.0 | S |
| REL240 | 2011 Fall | Religion and Science | | Consideration of the relationship of religion and science from the beginnings of the historical period to the present. Includes consideration of various contemporary religious perspectives on current scientific issues | Prerequisites: None. | Course Attribute(s): General Education Designation: Humanities, Arts and Design - [HU] | Acad | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| REL244 | 1997 Fall | Philosophy of Religion | PHI244 | Religious language, the existence of God, miracles, and human destiny | Prerequisites: None. | Course Attribute(s): General Education Designation: Humanities, Arts and Design - [HU] | Acad | LEC 3.0 3.0 3.0 | S |
| REL245 | 2009 Fall | Eco Religion | | Consideration of the perspectives of various religious traditions toward the origins, destiny and value of the earth and its non-human life. Includes exploration of contemporary issues in the interaction of humans with the environment | Prerequisites: None. | | Acad | LEC 3.0 3.0 3.0 | S |
| REL248 | 2011 Fall | Religion, Peace and Violence | | Exploration of the understandings and attitudes toward peace, war and violence in religious traditions from the pre-historical to the present. Includes consideration of a variety of religious scripture traditions, theological and philosophical reflections, and religious symbolism. | Prerequisites: A grade of C or better in ENG101, or ENG107, or permission of Instructor. | | Acad | LEC 3.0 3.0 3.0 | S |
| REL250 | 2012 Spring | Religion in Ireland: Neolithic to Early Medieval | | Survey of the Ancient religious traditions of Ireland. Students investigate the beliefs and practices of Irish Religions in the context of their social, economical and political systems from the late Neolithic to the early Medieval periods (4000 BCE-700 CE). | Prerequisites: None. | Course Attribute(s): General Education Designation: Historical Awareness - [H] General Education Designation: Humanities, Arts and Design - [HU] | Acad | LEC 3.0 3.0 3.0 | S |
| REL251 | 2007 Summer I | History of Religion in Ireland: Medieval to Modern | | Development of Christianity in Ireland from 400 AD to present, focusing on political, economic, social, and cultural factors. | Prerequisites: None. | Course Attribute(s): General Education Designation: Historical Awareness - [H] General Education Designation: Humanities, Arts and Design - [HU] | Acad | LEC 3.0 3.0 3.0 | S |
| REL270 | 1998 Fall | Introduction to Christianity | | The nature and content of the Christian tradition developed over time, with overview of the New Testament, major historical trends and figures, major Christian ideas and | Prerequisites: None. | Course Attribute(s): General Education Designation: Humanities, Arts and Design - [HU] | Acad | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | practices, and survey of denominations. | | | | | |
| REL271 | 2017 Spring | Introduction to the New Testament | | Focuses on the origins, development, and selection of the New Testament (NT) books in the Christian religion. Includes authorship, historical reliability, translation and transmission over the centuries, and investigative techniques used by modern scholars. Also considers the varieties of literature contained in the NT, its portrayal of the status of women, and the influence of first-century religious and cultural worldviews on its development. | Prerequisites: None. | Course Attribute(s): General Education Designation: Humanities, Arts and Design - [HU] | Acad | LEC 3.0 3.0 3.0 | S |
| REL277 | 2006 Fall | Mysticism East and West | | Mystical traditions of Eastern and Western religions, including Hinduism, Buddhism, Judaism, Christianity, and Islam, as well as shamanism of oral traditions | Prerequisites: None. | | Acad | LEC 3.0 3.0 3.0 | S |
| REL282AA | 2014 Fall | Service Learning Experience in Religious Studies | | Service learning field experience within private/public agencies, and citizen volunteer groups. | Prerequisites: A grade of C or better in REL100 or permission of Instructor. | REL282AA may be repeated for a total of six (6) REL282 credit hours; may not repeat specific agency assignment for more than three (3) credit hours. | Acad | LAB 1.0 1.0 0.0 | L |
| REL282AB | 2014 Fall | Service Learning Experience in Religious Studies | | Service learning field experience within private/public agencies, and citizen volunteer groups. | Prerequisites: A grade of C or better in REL100 or permission of Instructor. | REL282AB may be repeated for a total of six (6) REL282 credit hours; may not repeat specific agency assignment for more than three (3) credit hours. | Acad | LAB 2.0 2.0 0.0 | L |
| REL282AC | 2014 Fall | Service Learning Experience in Religious Studies | | Service learning field experience within private/public agencies, and citizen volunteer groups. | Prerequisites: A grade of C or better in REL100 or permission of Instructor. | REL282AC may be repeated for a total of six (6) REL282 credit hours; may not repeat specific agency assignment for more than three (3) credit hours. | Acad | LAB 3.0 3.0 0.0 | L |
| REL290 | 2012 Spring | Women and World Religions | WST290 | Focus on the role of women in several organized religions and/or religious sects. Study of myth and symbols as they are used to establish, | Prerequisites: None. | Course Attribute(s): General Education Designation: Global Awareness - [G] General Education Designation: | Acad | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | maintain, and enforce sex-roles within specific cultural contexts around the world. | | Humanities, Arts and Design - [HU] | | | |
| REL291 | 2018 Spring | Religion and Sexuality | | Exploration of the perspectives of various religious traditions on human sexuality. Includes consideration of all aspects of sexual practice as well as its incorporation into religious discourse and practice and its impact on social norms and structures. | Prerequisites: None. | REL291 may contain adult content. All students under 18 years old are required to have a signed parental consent form on file, which is on the back of the Under the age of 18 Enrollment Form. Course Attribute(s): General Education Designation: Global Awareness- [G] General Education Designation: Humanities, Arts and Design - [HU] | Acad | LEC 3.0 3.0 3.0 | S |
| REL292 | 2012 Summer I | Goddess Religions | WST292 | Introduction to Goddess religions from pre-historic to modern times. Focuses on ancient origins, myths and practices of religions with female deities, their historical replacement by male religious deities, and their modern re-emergence in neo-Goddess movements. | Prerequisites: None. | | Acad | LEC 3.0 3.0 3.0 | S |
| REL294 | 2009 Fall | Religion in Community Service | | Consideration of the history and nature of the involvement of religious tradition in transformative social action. Incorporates student involvement in some dimension of community service with subsequent integrative classroom activities. | Prerequisites: None. | | Acad | LEC 3.0 3.0 3.0 | S |
| REL295 | 2009 Fall | Capstone: The Story of Belief | | Analysis of both the process and results of human belief, in various stages of the human experience. Incorporates materials from multiple disciplines to form an overarching narrative that integrates the variations of human belief | A grade of C or better in any four (4) REL courses. | | Acad | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| REL296WA | 2023 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor. | | Acad | LAB 1.0 5.0 0.0 | Z |
| REL296WB | 2023 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor. | | Acad | LAB 2.0 10.0 0.0 | Z |
| REL296WC | 2023 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify | | Acad | LAB 3.0 15.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor. | | | | |
| REL296WD | 2023 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor. | Acad | | LAB 4.0 20.0 0.0 | Z |
| REL298AA | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | Prerequisites: Permission of Program Director or Instructor. | Acad | | LAB 1.0 1.0 0.0 | Z |
| REL298AB | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of | Prerequisites: Permission of Program Director or Instructor. | | | LAB 2.0 2.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | | | | | |
| REL298AC | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | Prerequisites: Permission of Program Director or Instructor. | | Acad | LAB 3.0 3.0 0.0 | Z |
| RES109 | 2016 Spring | CPR for Health Care Provider | HCC109 | Current American Heart Association standards for one and two rescuer cardiopulmonary resuscitation (CPR) and obstructed airway procedures on the adult, infant, and pediatric victim. Use of automatic, external defibrillation and resuscitation equipment | Prerequisites: None. | | Occ | LEC 0.5 0.5 0.5 | S |
| RES118 | 2021 Fall | Vascular Access for Clinical Practice | | Scope of practice and regulations governing vascular access. Anatomy and physiology of the vascular system. Occupational Safety and Health Administration (OSHA) guidelines. Theory and practice of vascular | Prerequisites: None. Corequisites: RES130 or permission of the Program Director. | | Occ | L+L 1.0 1.5 1.5 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | access as designated by Infusion Nursing Standards (INS). | | | | | |
| RES130 | 2020 Fall | Respiratory Care Fundamentals I | | Review of existing clinical data and recommendations. Data required to determine appropriateness of prescribed respiratory care plan. Administration of basic respiratory care therapeutics to include medical gas administration, oxygen therapy administration, and humidity/aerosol therapy administration. Use and maintenance of select respiratory equipment. Use of communication skills during interactions with members of the health care team and patients. Ethical, legal and professional work behaviors. | Prerequisites: Admission into the Respiratory Care program. | | Occ | LEC 4.5 3.0 3.0 LAB 0.0 5.0 5.0 | T |
| RES131 | 2016 Fall | Infection Control for Respiratory Care | | Techniques and procedures used by Respiratory Therapist to clean and sterilize equipment and environments, and prevent the transmission of nosocomial and other healthcare related infections. | Prerequisites: Admission into the Respiratory Care program or admission into the Polysomnographic Technology program. | | Occ | LEC 1.0 1.0 1.0 | S |
| RES133 | 2020 Fall | Respiratory Care Clinical Seminar | | Clinical application of concurrent respiratory care course work with emphasis on professionalism, medical record evaluation, communication, universal precaution, infection control, patient safety, patient assessment, age related care, cultural competence, routine hospital regulations, patient education and introduction to respiratory disease and treatment | Prerequisites: Admission into the Respiratory Care program. | | Occ | LEC 2.0 2.0 2.0 | S |
| RES134 | 2020 Spring | Respiratory Care Pharmacology I | | Pharmacologic principles related to the treatment of acute and chronic pulmonary | Prerequisites: Admission into the Respiratory Care | | Occ | LEC 2.0 2.0 2.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | diseases. Information on mucokinetics, anti-inflammatory, antiasthmatic and anti-infective agents to include mechanism of action, general drug information, side effects, and respiratory care considerations. | program or permission of the Program Director. | | | | |
| RES136 | 2009 Fall | Applied Biophysics for Respiratory Care | | Physical principles specific to ventilation. Laws of physics and their relationship to the respiratory system and the application of respiratory care equipment. Role of respiratory care during specific diagnostic procedures. Use of mathematical formulae. | Prerequisites: Admission into the Respiratory Care program. | | | LEC 3.0 3.0 3.0 | S |
| RES140 | 2018 Fall | Respiratory Care Fundamentals II | | Continuation of basic respiratory care procedures to include patient assessment and monitoring, chest physiotherapy techniques and pulmonary rehabilitation. Hyperinflation therapy, airway management and introduction to mechanical ventilation. Equipment operation, quality assurance and maintenance. Use of communications skills during interactions with health care team members and patients. Ethical, legal and professional work behaviors. | Prerequisites: Admission into the Respiratory Care program. | Occ<br><br>Occ | | LEC 5.0 3.0 3.0 LAB 0.0 6.0 6.0 | T |
| RES142 | 2021 Fall | Respiratory Care Clinical I | | Clinical application of concurrent respiratory care course work with emphasis on professionalism, medical record evaluation and performance of oxygen therapy, aerosol therapy, chest physiotherapy techniques, hyperinflation therapy, airway management devices and techniques, and observation of mechanical ventilation. | Prerequisites: Admission into the Respiratory Care program. | | | LAB 4.0 27.0 0.0 | C |



Occ

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| RES144 | 2019 Spring | Introduction to Mechanical Ventilation | | Introduction to mechanical ventilation including, technology, impact of the use of technology on patient physiology, and how it affects the oxygenation and ventilation ability of the patient. | Prerequisites: Admission into the Respiratory Care program. | | Occ | LEC 1.0 1.0 1.0 | S |
| RES220 | 2020 Fall | Respiratory Care Fundamentals III | | Advanced respiratory care therapy and assessment techniques to include ventilator setup and management. Diagnostic testing specific to assessment of oxygenation and ventilation and specific respiratory care procedures utilized in critical care. | Prerequisites: Admission into the Respiratory Care program. | | Occ | LEC 4.5 3.0 3.0 LAB 0.0 5.0 5.0 | T |
| RES222 | 2018 Fall | Cardiopulmonary Resuscitation Instructor | | Standards of the American Heart Association for Basic Life Support. Procedures and skills for teaching cardiopulmonary resuscitation | Health care provider CPR card. | | | L+L 1.0 1.0 1.0 | T |
| RES224 | 2019 Spring | Pathophysiology for Respiratory Care | | Causes of disease and their impact on the human body. Common physiologic effects of disease on body systems. Role of the respiratory therapist and the members of a multidisciplinary health care team in the diagnosis and treatment of disease. Cultural implications in prevention and treatment of disease. | Prerequisites: Admission into the Respiratory Care program. | Occ | Occ | LEC 2.0 2.0 2.0 | S |
| RES226 | 2016 Fall | Respiratory Care Clinical II | | Clinical application of all prerequisite respiratory care course work with emphasis on adult critical care and neonatal/pediatric care. Basic and critical care therapeutics, advanced patient assessment and monitoring. Assisting physician during special procedures. Increased responsibility for total patient | Prerequisites: Admission into the Respiratory Care program. | | Occ | LAB 4.0 27.0 0.0 | C |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | care, work organization and time management. | | | | | |
| RES230 | 2021 Fall | Respiratory Care Fundamentals IV | | Advanced respiratory care therapy and assessment techniques to include advanced modes of ventilation, hemodynamic monitoring, performance and interpretation of pulmonary function testing. Assisting physicians during special procedures. Development of advanced respiratory care plans and clinical research techniques. Equipment operation, quality assurance, and maintenance. Use of effective communication skills with members of the health care team and patients. | Prerequisites: Admission into the Respiratory Care program. | | Occ | LEC 4.5 3.0 3.0 LAB 0.0 5.0 5.0 | T |
| RES232 | 2016 Fall | Respiratory Care Clinical III | | The study and scientific inquiry of issues and demands placed on business enterprise by owners, customers, government, employees and society. Included are social, ethical and public issues and analysis of the social impact of business responses. | Prerequisites: None. | | Occ | LAB 4.0 27.0 3.0 | C |
| RES235 | 2020 Spring | Respiratory Care Pharmacology II | | Pharmacologic principles specific to the care of the respiratory patient in the acute care environment to include the following agents: cardiac, renal, blood pressure, antithrombotic, neuromuscular, anesthetic, sedative, and analgesics. Utilization of evidence-based practice in the treatment and care of patients. | Prerequisites: Admission into the Respiratory Care program or permission of the Program Director. | | Occ | LEC 2.0 2.0 2.0 | S |
| RES240 | 2019 Spring | Respiratory Physiology | | Physiology of the respiratory, cardiovascular and renal systems as related to oxygenation and ventilation of the human body. Physiologic | Prerequisites: Admission into the Respiratory Care program. | | Occ | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | mechanisms of breathing. Role of capillary circulation in fluid regulation. Impact of respiratory care procedures on the organ systems. | | | | | |
| RES270 | 2020 Spring | Neonatal and Pediatric Respiratory Care | | Neonatal and pediatric respiratory care to include development, anatomical and physiological differences, assessment, basic respiratory care procedures, mechanical ventilation and common disorders and conditions. Specific communication skills. | Prerequisites: Admission into the Respiratory Care program or permission of the Program Director. | | Occ | LEC 2.0 2.0 2.0 | S |
| RES278 | 2020 Spring | Vascular Access Review | | Scope of practice and regulations governing venipuncture and maintenance of vascular devices specific to the vascular access board certification credentialing examination. Anatomy and physiology of the vascular system. Administration and discontinuation of vascular devices based on best practice guidelines. The use of communication skills for different patient populations and among other healthcare providers. Ethical, legal and professional work behaviors. | Prerequisites: Current license in a medical profession or permission of the Program Director. | | Occ | LEC 2.0 2.0 2.0 | S |
| RES280 | 2020 Spring | Respiratory Care Review | | Data interpretation, equipment operation and therapeutic procedures specified for the National Board for Respiratory Care (NBRC) Registered Respiratory Therapist (RRT) examination. Quality control and therapeutic procedures. Pharmacologic agents and treatment of cardiopulmonary collapse. Pulmonary rehabilitation and home care. | Prerequisites: Admission into the Respiratory Care program or permission of the Program Director. | | Occ | LEC 2.0 2.0 2.0 | S |
| RES291 | 2019 Spring | Respiratory Care Advanced Life Support | | Airway management for the adult, patient. Endotracheal | Prerequisites: Admission into the | | | LEC 1.0 1.0 1.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | and suctioning procedures. Usage of specific medications for cardiovascular emergencies. Interpretation of electrocardiogram (ECG) dysrhythmias. Performance of defibrillation and synchronized cardioversion in simulated situations. Procedure to be followed during cardiovascular collapse. Special resuscitation techniques for adult, patients. Current American Heart Association validation in Advanced Cardiac Life Support (ACLS). | Respiratory Care program or permission of the Program Director. | | | | |
| RES292 | 2019 Spring | Respiratory Care Pediatric Advanced Life Support | | Airway management for the pediatric patient. Endotracheal and suctioning procedures. Usage of specific medications for cardiovascular emergencies. Interpretation of electrocardiograms (ECG) dysrhythmias. Performance of defibrillation and synchronized cardioversion in simulated situations. Procedure followed during cardiovascular collapse in the pediatric patient. Special resuscitation techniques for pediatric patients. Current American Heart Association validation in pediatric advanced life support (PALS). | Prerequisites: Admission into the Respiratory Care program or permission from the Program Director. | Occ | | LEC 1.0 1.0 1.0 | S |
| RES297 | 2020 Spring | Respiratory Care Seminar | | Presentation of case scenarios of various patient type and disease processes. Application of general principles of respiratory care to arrive at clinical solutions. | Prerequisites: Admission into the Respiratory Care program or permission of the Program Director. | | Occ | LEC 2.0 2.0 2.0 | S |
| RES298AA | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and | Prerequisites: Permission of Program Director or Instructor. | | Occ | LAB 1.0 1.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | | | | | |
| RES298AB | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | Prerequisites: Permission of Program Director or Instructor. | | Occ | LAB 2.0 2.0 0.0 | Z |
| RES298AC | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | Prerequisites: Permission of Program Director or Instructor. | | Occ | LAB 3.0 3.0 0.0 | Z |
| RPM132 | 2023 Fall | Landscape Management | GCO132 | Identification of plants commonly used in Arizona landscaping. Includes trees, | Prerequisites: None. | | Occ | L+L 2.0 3.0 3.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | shrubs, vines, flowers, and ground covers. Techniques for planting, watering, and fertilizing recreational grounds. Pest control planning. | | | | | |
| RPM150AA | 2023 Fall | Outdoor Adventure Skills Field Experience | | Practical application of camping and outdoor skills including camping, equipment selection and use, cooking, fire building, camp programs, backpacking, and safety. | Prerequisites: None. | RPM150AA may be repeated for a total of four (4) credits. | Occ | LAB 1.0 2.0 2.0 | T |
| RPM150AB | 2023 Fall | Outdoor Adventure Skills | | Camping and outdoor skills including types of camping, equipment selection and use, cooking and fire building, camp programs, backpacking, and safety. | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| RPM155AA | 2023 Fall | Canyoneering | | Basic canyoneering skills. Includes hydrology, navigation, safety systems, climbing and hiking skills, wading/swimming techniques and flood/weather identification. | Prerequisites: None. | RPM155AA may be repeated for a total of four (4) credits. | Occ | L+L 1.0 2.0 2.0 | T |
| RPM155AB | 2023 Fall | Caving | | Basic caving skills. Includes cave ecology, navigation, safety systems, lighting systems and equipment selection. | Prerequisites: None. | RPM155AB may be repeated for a total of four (4) credits. | Occ | L+L 1.0 2.0 2.0 | T |
| RPM155AC | 2023 Fall | Outdoor Rock Climbing | | Basic outdoor rock climbing skills. Includes belaying, climbing techniques, rope systems and anchor systems. | Prerequisites: None. | RPM155AC may be repeated for a total of four (4) credits. | Occ | L+L 1.0 2.0 2.0 | T |
| RPM155AD | 2023 Fall | Rowing | | Basic rowing skills for a four or eight person shell. Includes physical conditioning, rowing etiquette and safety, boat handling, proper rowing techniques, and teamwork. | Prerequisites: None. | RPM155AD may be repeated for a total of four (4) credits. | Occ | L+L 1.0 2.0 2.0 | T |
| RPM155AE | 2023 Fall | Indoor Rock Climbing | | Basic indoor rock climbing skills. Includes belaying, climbing techniques, rope systems, anchor systems and safety. | Prerequisites: None. | RPM155AE may be repeated for a total of four (4) credits. | Occ | L+L 1.0 2.0 2.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| RPM155AF | 2023 Fall | Backpacking | | Covers basic skills and techniques of backpacking and the application of these to wilderness travel. | Prerequisites: None. | RPM155AF may be repeated for a total of four (4) credits. | Occ | L+L 1.0 2.0 2.0 | T |
| RPM155AG | 2023 Fall | Hiking | | Development of safe and enjoyable hiking skills. Essentials and requirements for safe hiking. | Prerequisites: None. | RPM155AG may be repeated for a total of four (4) credits. | Occ | L+L 1.0 2.0 2.0 | T |
| RPM155AJ | 2023 Fall | Outdoor Survival | | Introduction to and practice of essential skills needed for procuring shelter, water and fire in a wilderness environment. | Prerequisites: None. | RPM155AJ may be repeated for a total of four (4) credits. | Occ | L+L 1.0 2.0 2.0 | T |
| RPM155AK | 2023 Fall | Leave No Trace Trainer Certification | | Emphasis on seven (7) Leave No Trace principles. Skills needed to effectively teach and demonstrate minimum impact techniques and outdoor ethics. | Prerequisites: None. | RPM155AK provides hands-on experiences, held in the outdoors with one overnight camping. Course instructor(s) are certified LNT Master Educators. Students who successfully complete the course become Leave No Trace Trainers and receive a completion certificate through the LNT Center. Basic level of fitness recommended. RMP155AK may be repeated for a total of four (4) credit hours. | Occ | L+L 1.0 2.0 2.0 | T |
| RPM240 | 2023 Fall | Wilderness First Responder | | Introduces and provides practical training in the essentials of medical assistance in backcountry emergencies. Includes patient assessment, first aid for trauma victims, and treatment of other medical emergencies. | Prerequisites: None. | | Occ | L+L 3.0 6.0 6.0 | T |
| RPM271AC | 2023 Fall | Recreational Resources and Facilities Management Internship | | Work experience in a recreational resources and facilities setting. Fifteen (15) hours of work weekly. Supervision and evaluation by internship coordinator. | Prerequisites: Permission of Department or Division. | RPM271AC may be repeated for a total of six (6) credit hours. | Occ | LAB 3.0 15.0 0.0 | C |
| RPM282AA | 2023 Fall | Volunteerism for Recreation: A Service Learning Experience | | Service learning field experience within private/public agencies, | Prerequisites: Permission of Instructor. | RPM282AA may be repeated for a total of six (6) credit hours. Standard grading available | Occ | LAB 1.0 1.0 0.0 | L |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | educational institution, and citizen volunteer groups. | | according to procedures outlined in catalog. | | | |
| RPM282AB | 2023 Fall | Volunteerism for Recreation: A Service Learning Experience | | Service learning field experience within private/public agencies, educational institution, and citizen volunteer groups. | Prerequisites: Permission of Instructor. | RPM282AB may be repeated for a total of six (6) credit hours. Standard grading available according to procedures outlined in catalog. | Occ | LAB 2.0 2.0 0.0 | L |
| RPM282AC | 2023 Fall | Volunteerism for Recreation: A Service Learning Experience | | Service learning field experience within private/public agencies, educational institution, and citizen volunteer groups. | Prerequisites: Permission of Instructor. | RPM282AC may be repeated for a total of six (6) credit hours. Standard grading available according to procedures outlined in catalog. | Occ | LAB 3.0 3.0 0.0 | L |
| RPM296WA | 2023 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor. | | Occ | LAB 1.0 5.0 0.0 | Z |
| RPM296WB | 2023 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest | | Occ | LAB 2.0 10.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | or with permission of the Instructor. | | | | |
| RPM296WC | 2023 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor. | | Occ | LAB 3.0 15.0 0.0 | Z |
| RPM296WD | 2023 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor. | | Occ | LAB 4.0 20.0 0.0 | Z |
| RPM298AA | 2023 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type | Prerequisites: Permission of Program Director or Instructor. | | Occ | LAB 1.0 1.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. | | | | | |
| RPM298AB | 2023 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. | Prerequisites: Permission of Program Director or Instructor. | | Occ | LAB 2.0 2.0 0.0 | Z |
| RPM298AC | 2023 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. | Prerequisites: Permission of Program Director or Instructor. | | Occ | LAB 3.0 3.0 0.0 | Z |
| RUS095 | 2002 Spring | Speak Russian I | | Limited vocabulary and grammar to help develop fluency in Russian. Emphasis on speaking skills | Prerequisites: None. | | Acad | LEC 1.0 1.0 1.0 | S |
| RUS101 | 2011 Fall | Elementary Russian I | | Basic grammar, pronunciation, and vocabulary of the Russian language. Practice of listening, speaking, reading, and writing skills | Prerequisites: None. | Course Attribute(s): Arizona Shared Unique Number SUN#: RUS 1101 | Acad | LEC 4.0 4.0 4.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| RUS102 | 2014 Fall | Elementary Russian II | | Continued study of grammar and vocabulary, with emphasis on speaking, reading, and writing skills. | Prerequisites: A grade of C or better in RUS101 or permission of Department or Division. Completion of prerequisites within the last three years is required. | | | LEC 4.0 4.0 4.0 | S |
| RUS115 | 1994 Fall | Beginning Russian Conversation I | | Basic sentence structure, pronunciation and vocabulary necessary to develop speaking ability in Russian | Prerequisites: None. | | Acad | LEC 3.0 3.0 3.0 | S |
| RUS201 | 2014 Fall | Intermediate Russian | | A continuation of RUS102. Review of essential grammar and continued practice and development of reading, writing, and speaking skills. | Prerequisites: A grade of C or better in RUS102 or permission of Department or Division. Completion of prerequisites within the last three years is required. | Course Attribute(s): General Education Designation: Global Awareness - [G] Arizona Shared Unique Number SUN#: RUS 2201 | Acad | LEC 4.0 4.0 4.0 | S |
| RUS202 | 2014 Fall | Intermediate Russian | | Continued development of Russian language skills. | Prerequisites: A grade of C or better in RUS201 or permission of Department or Division. Completion of prerequisites within the last three years is required. | Course Attribute(s): General Education Designation: Global Awareness - [G] Arizona Shared Unique Number SUN#: RUS 2202 | Acad | LEC 4.0 4.0 4.0 | S |
| RUS296WA | 2023 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor. | | Acad | LAB 1.0 5.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| RUS296WB | 2023 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor. | | Acad | LAB 2.0 10.0 0.0 | Z |
| RUS296WC | 2023 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor. | | Acad | LAB 3.0 15.0 0.0 | Z |
| RUS296WD | 2023 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) | | Acad | LAB 4.0 20.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor. | | | | |
| RUS298AA | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | Prerequisites: Permission of Program Director or Instructor. | | Acad | LAB 1.0 1.0 0.0 | Z |
| RUS298AB | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | Prerequisites: Permission of Program Director or Instructor. | | Acad | LAB 2.0 2.0 0.0 | Z |
| RUS298AC | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by | Prerequisites: Permission of Program Director or Instructor. | | Acad | LAB 3.0 3.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | | | | | |
| SBS200 | 1996 Fall | Small Business Operations | | In-depth analysis of and individual plan development for the "day-to-day" problems encountered in the operation of a small business. Includes the development of an individual business operations plan including finance, purchasing, production scheduling, maintenance, shipping/receiving,personnel management and insurance/risk management requirements. Investigation of daily problems related to inventory control and business expansion | Prerequisites: None. | | Occ | LEC 2.0 2.0 2.0 | S |
| SBS202 | 1996 Fall | Small Business Bookkeeping and Tax Preparation | | Introduces accounting and record-keeping with emphasis on practical use of financial data for the successful management of a small business. Develops an understanding of the accounting cycle and preparation of financial statements. Includes section on tax consequences and preparation for small business owners. Designed for the non-financially oriented owner/manager of a small business | Prerequisites: None. | | Occ | LEC 1.0 1.0 1.0 | S |
| SBS203 | 1996 Fall | Financing and Cash Management For a Small Business | | Planning for and meeting the financial needs of the small business including cash flow | Prerequisites: None. | | Occ | LEC 1.0 1.0 1.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | planning, identification of financial needs and sources, equity and debt financing, and preparation of loan packages. Participants complete a financial plan for their individual company, with emphasis on cost controls, sales revenue projection, expense allocation, and inventory cost control. Day-to-day operational budgeting also included | | | | | |
| SBS204 | 1996 Fall | Small Business Marketing and Advertising | | Introduction to marketing and advertising strategies and methods including business image, target market analysis, and customer buying behavior profile. Analysis and selection of advertising/business promotion methods and timing. Methods of deciding product and market segment focus included. Design of an individual marketing and advertising/promotion plan | Prerequisites: None. | | Occ | LEC 2.0 2.0 2.0 | S |
| SBS213 | 1996 Fall | Hiring and Managing Employees | | Methods and techniques for managing employees in a small business. Includes supervisor's role, leadership styles, interpersonal communications, staff planning, employee work styles, techniques for handling problem employees, and employee motivation. Focuses on real life situations to enable the business owner to gain high performance from their employee team. Includes segment on hiring, new employee orientation, training, benefits, and developing future staffing needs assessment | Prerequisites: None. | | Occ | LEC 1.0 1.0 1.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| SBS214 | 1996 Fall | Small Business Customer Relations | | Developing and improving customer relations for the small business. Planning and delivering quality customer service. Includes topics on attitude of employees, customer perceptions and motivations, handling customer dissatisfaction, and developing customer, supplier, vendor, and distributor loyalty | Prerequisites: None. | | Occ | LEC 1.0 1.0 1.0 | S |
| SBS216 | 2019 Fall | Planning for a Small Business | | Relates business management issues to a specific small business through development of an individual study plan. Provides on-site review of business operation by trained instructor. | Prerequisites: A grade of C or better in (SBS200 and SBS204) or SBS220 or permission of Instructor. | | Occ | LEC 2.0 2.0 2.0 | S |
| SBS217 | 1996 Fall | Starting/Managing a Home Business | | Analysis of the successful operation of a home-based business. Includes study of economic feasibility, practicality, and adjustments for the family. Analysis of the advantages/disadvantages of operating a home based business, versus a "store-front" business. Review of current trends in home business opportunities and franchises. Descriptions of home businesses that have succeeded in local, national, and international markets | Prerequisites: None. | | Occ | LEC 1.0 1.0 1.0 | S |
| SBS220 | 1999 Fall | Internet Marketing for Small Business | | Focuses on "e-Commerce"-doing business on the Internet and planning a web site. Topics include: how the Internet can help growth and success of business; examples of successful marketing on the Internet; availability of Internet services; necessary hardware and software for marketing on the Internet; determining | Prerequisites: None. | | Occ | LEC 2.0 2.0 2.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | products/services appropriate for Internet marketing; budget constraints and on-going operations of the Internet site | | | | | |
| SBS221 | 2015 Fall | Social Media Marketing for Small Business | | Focuses on use of Social Media for Small Businesses and Entrepreneurs. Topics include: Use of Social Media, types of Social Media, how Social Media can help growth and success of business; examples of successful Social Media marketing, setting up and deploying various types of Social Media. Options for hardware and software for Social Media, determining products/services appropriate for Social Media, Monetization of Social Media. Budget constraints and on-going monitoring and content management of Social Media. | Prerequisites: None. | | Occ | LEC 2.0 2.0 2.0 | S |
| SBS230 | 2001 Fall | Financial and Tax Management for Small Business | | An overview of accounting and record-keeping for the successful management of a small business. Develops an understanding of the accounting cycle and preparation of financial statements. Includes section on tax consequences and the choice of legal entity choice based on taxation | Prerequisites: None. | | Occ | LEC 2.0 2.0 2.0 | S |
| SBS290AA | 2019 Summer | Developing a Practical Small Business Plan | | Practical techniques for developing, writing, and implementing a business plan. Designed for the small business owner or manager. | Prerequisites: None. | | Occ | LEC 0.5 0.5 0.5 | S |
| SBS298AA | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and | Prerequisites: Permission of Program Director or Instructor. | | Occ | LAB 1.0 1.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | | | | | |
| SBS298AB | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | Prerequisites: Permission of Program Director or Instructor. | Occ | | LAB 2.0 2.0 0.0 | Z |
| SBS298AC | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | Prerequisites: Permission of Program Director or Instructor. | Occ | | LAB 3.0 3.0 0.0 | Z |
| SBU200 | 2016 Summer | Society and Business | | The study and scientific inquiry of issues and demands placed on business enterprise by owners, customers, government, employees and | Prerequisites: None. | Course Attribute(s): General Education Designation: Global Awareness - [G] General Education Designation: Social and Behavioral Sciences - [SB] | Occ | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | society. Included are social, ethical and public issues and analysis of the social impact of business responses | | | | | |
| SCT100 | 2012 Spring | Introduction to Sustainable Built Environments | | Study of the built environment and implications on human health, the natural environment, and society. Understanding of strategies that achieve sustainable design. Exploration of positive and negative sustainable product attributes. Emphasis on Leadership in Energy and Environmental Design (LEED). | Prerequisites: None. | SCT100 will not complete the requirements to sit for the LEED Accredited Professional examinations. Additional study is necessary to successfully pass the LEED Green Associates examination. | Occ | LEC 3.0 3.0 3.0 | S |
| SEM104AA | 2018 Fall | Secondary Basic Emergency Medical Technology: Patient Assessment | | Techniques of emergency medical care in accordance with national and state curriculum. Study of patient assessment. | Prerequisites: Current enrollment in the Phoenix Union High School District Current CPR (Cardiopulmonary Resuscitation) certification from the American Heart Association American Red Cross or other equivalent organization at the Healthcare Provider level meeting the American Heart Association Guidelines 2002 Proof of TB testing or chest x-ray with a negative result within 6 months prior to enrollment. | Occ | | L+L 0.5 0.75 0.75 | T |
| SEM104AB | 2018 Fall | Secondary Basic Emergency Medical Technology: Basic Life Support and Airway Management | | Techniques of emergency medical care in accordance with national and state curriculum. Study of the use of mechanical aids for breathing and circulation, administration of oxygen, and techniques of basic life support (BLS) | Prerequisites: Current enrollment in the Phoenix Union High School District and SEM104AA with a grade of C or better. | | | L+L 0.5 0.75 0.75 | T |



Occ

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| SEM104AC | 2004 Fall | Secondary Basic Emergency Medical Technology: Soft Tissue and Environmental Emergencies | | Techniques of emergency medical care in accordance with national and state curriculum. Study of soft tissue and environmental injuries | Prerequisites: Current enrollment in the Phoenix Union High School District and SEM104AB with a grade of C or better. | | Occ | LEC 0.5 0.5 0.5 | S |
| SEM104AD | 2018 Fall | Secondary Basic Emergency Medical Technology: Head, Brain, Neck, and Spine | | Techniques of emergency medical care in accordance with national and state curriculum. Study of injuries to the head, brain, neck, and spine. | Prerequisites: Current enrollment in the Phoenix Union High School District and SEM104AC with a grade of C or better. | | Occ | L+L 0.5 0.75 0.75 | T |
| SEM104AE | 2004 Fall | Secondary Basic Emergency Medical Technology: Shock | | Techniques of emergency medical care in accordance with national and state curriculum. Study of shock, hypotension, and hypoperfusion | Prerequisites: Current enrollment in the Phoenix Union High School District and SEM104AD with a grade of C or better. | | Occ | LEC 0.5 0.5 0.5 | S |
| SEM104AF | 2004 Fall | Secondary Basic Emergency Medical Technology: Head ,Chest, and Abdomen | | Techniques of emergency medical care in accordance with national and state curriculum. Study of injuries to head, chest, abdomen, genitalia, and acute abdominal disorders | Prerequisites: Current enrollment in the Phoenix Union High School District and SEM104AE with a grade of C or better. | | Occ | LEC 0.5 0.5 0.5 | S |
| SEM104AG | 2004 Fall | Secondary Basic Emergency Medical Technology: Medical-Legal | | Techniques of emergency medical care in accordance with national and state curriculum. Includes the role and scope of the duties and practice of the Basic Emergency Medical Technician. Includes standard of care, consents, and associated statutes, rules, and regulations | Prerequisites: Current enrollment in the Phoenix Union High School District and SEM104AF with a grade of C or better. | | Occ | LEC 0.5 0.5 0.5 | S |
| SEM104AH | 2018 Fall | Secondary Basic Emergency Medical Technology: Pediatrics | | Techniques of emergency medical care in accordance with national and state curriculum. Study of the human body from birth to 12 years of age. Includes pediatric patient assessment, treatment of medically or traumatically compromised patients, special hazards and | Prerequisites: Current enrollment in the Phoenix Union High School District and SEM104AG with a grade of C or better. | | Occ | L+L 0.5 1.0 1.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | abusive situations, and Sudden Infant Death Syndrome (SIDS) | | | | | |
| SEM104AI | 2018 Fall | Secondary Basic Emergency Medical Technology: Respiratory, Behavioral, Environmental | | Techniques of emergency medical care in accordance with national and state curriculum. Study of acute and chronic respiratory emergencies, behavioral and environmental emergencies, and diabetic states | Prerequisites: Current enrollment in the Phoenix Union High School District and SEM104AH with a grade of C or better. | | Occ | L+L 0.5 1.0 1.0 | T |
| SEM104AJ | 2018 Fall | Secondary Basic Emergency Medical Technology: Gynecologic or Obstetrical Emergencies | | Techniques of emergency medical care in accordance with national and state curriculum. Study of gynecologic and obstetrical emergencies | Prerequisites: Currently enrolled in the Phoenix Union High School District and SEM104AI with a grade of C or better. | | Occ | L+L 0.5 1.0 1.0 | T |
| SEM104AK | 2018 Fall | Secondary Basic Emergency Medical Technology: Musculoskeletal Extremity Injuries | | Techniques of emergency medical care in accordance with national and state curriculum. Study of techniques for stabilization and splinting of musculoskeletal injuries in extremities, including participation in two eight-hour clinical rotations through a local emergency department or an ambulance agency scheduled during the semester outside normal class hours | Prerequisites: Current enrollment in the Phoenix Union High School District and SEM104AJ with a grade of C or better. | | Occ | L+L 0.5 1.0 1.0 | T |
| SEM104AL | 2018 Fall | Secondary Basic Emergency Medical Technology: Patient Movement and Ambulance Equipment | | Techniques of emergency medical care in accordance with national and state curriculum. Study of techniques for lifting, moving, or positioning a patient, and use of ambulance/rescue vehicle equipment | Prerequisites: Current enrollment in the Phoenix Union High School District and SEM104AK with a grade of C or better. | | Occ | L+L 0.5 1.0 1.0 | T |
| SEM104AM | 2018 Fall | Secondary Basic Emergency Medical Technology: Triage Management | | Techniques of emergency medical care in accordance with national and state curriculum. Study of techniques for triage and | Prerequisites: Current enrollment in the Phoenix Union High School District and SEM104AL with a grade of C or better. | | Occ | L+L 0.5 0.75 0.75 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | disaster management in simulated situations | | | | | |
| SEM104AN | 2018 Fall | Secondary Basic Emergency Medical Technology: Intravenous Fluids | | Techniques of emergency medical care in accordance with national and state curriculum. Study of techniques for assessing a patient with intravenous (IV) fluids | Prerequisites: Current enrollment in the Phoenix Union High School District and SEM104AM with a grade of C or better. | | Occ | L+L 0.25 0.5 0.5 | T |
| SEM104AO | 2018 Fall | Secondary Basic Emergency Medical Technology: Evaluations | | Techniques of emergency medical care in accordance with national and state curriculum. Includes final written and practical evaluations according to the National Registry of EMTs (NREMT) and Arizona Rules and Regulations | Prerequisites: Current enrollment in the Phoenix Union High School District and SEM104AN with a grade of C or better. | | Occ | L+L 0.5 1.0 1.0 | T |
| SEM106 | 2018 Fall | Secondary Vehicular Extrication and Patient Stabilization | | Participative course designed to enhance the knowledge base of the Emergency Medical Technician (EMT) and to incorporate new knowledge and skills necessary to access, extricate, and care for victims of crash incidents. Provides exposure to scene management skills, including size-up, disentanglement, victim stabilization for single- and multi-victim situations, hazardous materials incidents, integration of local emergency medical services (EMS) for patient assessment and management, and standard operating procedures for selected victim scenarios. | Prerequisites: Current enrollment in the Phoenix Union High School District and (a grade of C or better in SEM104AO or permission of instructor). | | Occ | L+L 1.0 2.5 2.5 | T |
| SEM108 | 2018 Fall | Secondary Trauma Patient Management | | Provides exposure to victim assessment, initial treatment, resuscitative techniques, victim stabilization, victim transportation to an emergency care facility, and documentation | Prerequisites: Current enrollment in the Phoenix Union High School District and SEM104AO with a grade of C or better. | | Occ | L+L 0.5 2.0 2.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| SFS101AA | 2005 Summer I | Secondary Introduction to Fire Service Selection: Application Process | | Overview of the application and selection processes used by various fire departments and fire service organizations. Identification of the job qualifications and requirements used by various fire departments and fire service organizations | Current enrollment in the Phoenix Union High School District. | | | LEC 0.5 0.5 0.5 | S |
| SFS101AB | 2005 Summer I | Secondary Introduction to Fire Service Selection: Selection Process and Resumes | | Major components of written application processes, requirements, preparation of resumes, and their effect on employment prospects | Prerequisites: Current enrollment in the Phoenix Union High School District and SFS101AA with a grade of C or better. | Occ | Occ | LEC 1.0 1.0 1.0 | S |
| SFS101AC | 2005 Summer I | Secondary Introduction to Fire Service Selection: Interview Process | | Preparation for the interview to include communications skills, mental preparation techniques, behaviors, and the importance of the interview in the pre-employment process. Role of the applicant and interviewer in the interview process | Prerequisites: Current enrollment in the Phoenix Union High School District and SFS101AB with a grade of C or better. | | Occ | LEC 1.0 1.0 1.0 | S |
| SFS101AD | 2018 Fall | Secondary Introduction to Fire Service Selection: Fire Station Culture/Observation | | Elements of fire service culture and their effects on personal growth and interpersonal relationships. Preparation for on-site experiences at a fire station | Prerequisites: Current enrollment in the Phoenix Union High School District and SFS101AC with a grade of C or better. | | Occ | L+L 0.5 1.0 1.0 | T |
| SFS101AE | 2005 Summer I | Secondary Introduction to Fire Service Selection: Lifelong Learning | | General components of the selection process, the importance of general education, and components of lifelong learning in career choices | Prerequisites: Current enrollment in the Phoenix Union High School District and SFS101AD with a grade of C or better. | | Occ | LEC 0.5 0.5 0.5 | S |
| SFS102AA | 2004 Fall | Secondary Fire Department Operations: Organization and Dispatch | | Introductory fire science course designed primarily for the potential fire department recruit. Includes fire department organization and dispatch. | Prerequisites: Currently enrolled in the Phoenix Union High School District. | | Occ | LEC 0.25 0.25 0.25 | S |
| SFS102AB | 2004 Fall | Secondary Fire Department Operations: Fire Behavior and Classes | | Introductory fire science course designed primarily for the potential fire department recruit. Includes fire behavior, | Prerequisites: Currently enrolled in the Phoenix Union High School District and SFS102AA | | | LEC 0.5 0.5 0.5 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | phases of fire, classes of fire, and fire control methods | with a grade of C or better. | | | | |
| SFS102AC | 2018 Fall | Secondary Fire Department Operations: Fireground and Station Safety | | Introductory fire science course designed primarily for the potential fire department recruit. Includes firefighter safety on the fireground and in the fire station | Prerequisites: Currently enrolled in the Phoenix Union High School District and SFS102AB with a grade of C or better. | | Occ | L+L 0.25 0.5 0.5 | T |
| SFS102AD | 2018 Fall | Secondary Fire Department Operations: Self-Contained Breathing Apparatus | | Introductory fire science course designed primarily for the potential fire department recruit. Includes self-contained breathing apparatus (SCBA) | Prerequisites: Currently enrolled in the Phoenix Union High School District and SFS102AC with a grade of C or better. | | Occ | L+L 0.25 0.5 0.5 | T |
| SFS102AE | 2018 Fall | Secondary Fire Department Operations: Ropes, Knots, and Hitches | | Introductory fire science course designed primarily for the potential fire department recruit. Includes ropes, knots, and hitches. | Prerequisites: Currently enrolled in the Phoenix Union High School District and SFS102AD with a grade of C or better. | | Occ | L+L 0.25 0.5 0.5 | T |
| SFS102AF | 2018 Fall | Secondary Fire Department Operations: Water Supply and Foam | | Introductory fire science course designed primarily for the potential fire department recruit. Includes water supply and use of foam | Prerequisites: Currently enrolled in the Phoenix Union High School District and SFS102AE with a grade of C or better. | | Occ | L+L 0.25 0.5 0.5 | T |
| SFS102AG | 2018 Fall | Secondary Fire Department Operations: Fire Apparatus | | Introductory fire science course designed primarily for the potential fire department recruit. Includes fire apparatus | Prerequisites: Currently enrolled in the Phoenix Union High School District and SFS102AF with a grade of C or better. | | Occ | L+L 0.25 0.5 0.5 | T |
| SFS102AH | 2018 Fall | Secondary Fire Department Operations: Hoses | | Introductory fire science course designed primarily for the potential fire department recruit. Includes standard hose rolls, carries, and evolutions | Prerequisites: Currently enrolled in the Phoenix Union High School District and SFS102AG with a grade of C or better. | | Occ | L+L 0.5 2.0 2.0 | T |
| SFS102AI | 2018 Fall | Secondary Fire Department Operations: Hand Ladders | | Introductory fire science course designed primarily for the potential fire department recruit. Includes standard hand ladder evolutions | Prerequisites: Currently enrolled in the Phoenix Union High School District and SFS102AH with a grade of C or better. | | Occ | L+L 0.25 0.5 0.5 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| SFS102AJ | 2018 Fall | Secondary Fire Department Operations: Power Tools | | Introductory fire science course designed primarily for the potential fire department recruit. Includes power tools. | Prerequisites: Currently enrolled in the Phoenix Union High School District and SFS102AI with a grade of C or better. | | Occ | L+L 0.5 0.75 0.75 | T |
| SFS102AK | 2018 Fall | Secondary Fire Department Operations: Building Construction | | Introductory fire science course designed primarily for the potential fire department recruit. Includes building construction. | Prerequisites: Currently enrolled in the Phoenix Union High School District and SFS102AJ with a grade of C or better. | | Occ | L+L 0.25 0.5 0.5 | T |
| SFS102AL | 2018 Fall | Secondary Fire Department Operations: Forcible Entry | | Introductory fire science course designed primarily for the potential fire department recruit. Includes forcible entry | Prerequisites: Currently enrolled in the Phoenix Union High School District and SFS102AK with a grade of C or better. | | Occ | L+L 0.5 1.0 1.0 | T |
| SFS102AM | 2018 Fall | Secondary Fire Department Operations: Search and Rescue | | Introductory fire science course designed primarily for the potential fire department recruit. Includes search and rescue techniques | Prerequisites: Currently enrolled in the Phoenix Union High School District and SFS102AL with a grade of C or better. | | Occ | L+L 0.5 1.0 1.0 | T |
| SFS102AN | 2018 Fall | Secondary Fire Department Operations: Ventilation | | Introductory fire science course designed primarily for the potential fire department recruit. Includes structure ventilation | Prerequisites: Currently enrolled in the Phoenix Union High School District and SFS102AM with a grade of C or better. | | Occ | L+L 0.5 1.0 1.0 | T |
| SFS102AO | 2018 Fall | Secondary Fire Department Operations: Salvage and Overhaul | | Introductory fire science course designed primarily for the potential fire department recruit. Includes salvage and overhaul. | Prerequisites: Currently enrolled in the Phoenix Union High School District and SFS102AN with a grade of C or better. | | Occ | L+L 0.25 1.0 1.0 | T |
| SFS102AP | 2018 Fall | Secondary Fire Department Operations: Electrical Hazards | | Introductory fire science course designed primarily for the potential fire department recruit. Includes electrical hazards. | Prerequisites: Currently enrolled in the Phoenix Union High School District and SFS102AO with a grade of C or better. | | Occ | L+L 0.25 0.5 0.5 | T |
| SFS102AQ | 2018 Fall | Secondary Fire Department Operations: Radiological Hazards | | Introductory fire science course designed primarily for the potential fire department | Prerequisites: Currently enrolled in the Phoenix Union High School District and SFS102AP | | | L+L 0.25 0.5 0.5 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | recruit. Includes radiological hazards | with a grade of C or better. | | | | |
| SFS102AR | 2018 Fall | Secondary Fire Department Operations: Special Emergencies | | Introductory fire science course designed primarily for the potential fire department recruit. Includes special emergencies | Prerequisites: Currently enrolled in the Phoenix Union High School District and SFS102AQ with a grade of C or better. | | Occ | L+L 0.5 1.0 1.0 | T |
| SFS102AS | 2004 Fall | Secondary Fire Department Operations: Physical and Mental Fitness | | Introductory fire science course designed primarily for the potential fire department recruit. Includes physical and mental fitness | Prerequisites: Currently enrolled in the Phoenix Union High School District and SFS102AR with a grade of C or better. | | Occ | LEC 0.5 0.5 0.5 | S |
| SFS102AT | 2004 Fall | Secondary Fire Department Operations: Prevention and Investigation | | Introductory fire science course designed primarily for the potential fire department recruit. Includes prevention and investigation. | Prerequisites: Currently enrolled in the Phoenix Union High School District and a grade of C or better in SFS102AS. | | | LEC 0.5 0.5 0.5 | S |
| SFS102AU | 2004 Fall | Secondary Fire Department Operations: Code Violation | | Introductory fire science course designed primarily for the potential fire department recruit. Includes code violation | Prerequisites: Currently enrolled in the Phoenix Union High School District and SFS102AT with a grade of C or better. | | Occ | LEC 0.25 0.25 0.25 | S |
| SFS102AV | 2004 Fall | Secondary Fire Department Operations: Incident Organization and Communication | | Introductory fire science course designed primarily for the potential fire department recruit. Includes incident organization and communication | Prerequisites: Currently enrolled in the Phoenix Union High School District and SFS102AU with a grade of C or better. | Occ | Occ | LEC 0.5 0.5 0.5 | S |
| SFS102AW | 2004 Fall | Secondary Fire Department Operations: Tactical Priorities | | Introductory fire science course designed primarily for the potential fire department recruit. Includes tactical priorities | Prerequisites: Currently enrolled in the Phoenix Union High School District and SFS102AV with a grade of C or better. | | Occ | LEC 1.0 1.0 1.0 | S |
| SFS102AX | 2018 Fall | Secondary Fire Department Operations: Structural Fires | | Introductory fire science course designed primarily for the potential fire department recruit. Includes operations applied to structural fires | Prerequisites: Currently enrolled in the Phoenix Union High School District and SFS102AW with a grade of C or better. | | Occ | L+L 0.5 1.0 1.0 | T |
| SFS102AY | 2018 Fall | Secondary Fire Department Operations: Evaluations | | Introductory fire science course designed primarily for the potential fire department | Prerequisites: Currently enrolled in the Phoenix Union High School | | | L+L 0.25 1.0 1.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | recruit. Includes final written evaluation and International Fire Service Accreditation Congress Practical Skills Validation. | District and SFS102AX with a grade of C or better. | | | | |
| SFS134AA | 2005 Summer I | Secondary Fitness and Conditioning for Firefighters: Physical Requirements | | Overview of firefighters' physical fitness, nutrition, and protective clothing | Current enrollment in the Phoenix Union High School District. | | | LEC 0.5 0.5 0.5 | S |
| SGT100 | 2022 Fall | Fundamentals of Surgical Services | HCS100 | Preparation for the Certified Registered Central Service Technician (CRCST) role. Central Service work flow, job responsibilities, growth and development in the field, anatomy and physiology, microbiology for Central Service regulations and standards, infection prevention and control, tools for cleaning, decontamination, cleaning and decontamination, disinfection, sterile packaging and storage, processing, sterilization, management of patient care equipment, tracking systems, quality assurance, safety, communication, sterile processing for ambulatory surgery and clinics. | Prerequisites: Admission into the Hospital Central Service Technology or Surgical Technology program or permission of the Program Director. | Occ | Occ | LEC 5.0 3.0 3.0 LAB 0.0 6.0 6.0 | T |
| SGT101 | 2017 Spring | Medical Terminology for Surgical Services | HCS101 | Medical Terminology for patient care in surgery related areas. Use of word parts, term spelling, pronunciation and abbreviations related to all surgical specialties. | Prerequisites: None. Corequisites: HCS/SGT100. | | | LEC 1.0 1.0 1.0 | S |
| SGT102 | 2022 Fall | Basic Surgical Instrumentation for Surgical Services | HCS102 | History, construction and assembly of surgical instrumentation, categories, instrument set assembly, soft tissue foundation sets, general surgery instrumentation sets. | Prerequisites: Admission into the Hospital Central Service Technology or Surgical Technology program or permission of the Program Director. | | | LEC 2.0 1.0 1.0 LAB 0.0 3.0 3.0 | T |
| SGT105 | 2021 Fall | Surgical Technology Pre-Clinical | | Direct observation of principles and culture of operating room. Traffic | Prerequisites: A grade of C or better in BIO205 and PHY101. | Occ | Occ | LEC 1.0 0.5 0.5 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | patterns, aseptic techniques, roles, professional surgical team work, instrument handling, safety precautions with regard to exposure, surgical attire, surgical regimen and chain of command. | | | | LAB 0.0 1.5 1.5 | |
| SGT107 | 2022 Fall | Equipment and Supplies for Surgical Services | HCS107 | Introduction to the surgical equipment and supplies used in surgical services areas. | Prerequisites: Admission into the Hospital Central Service Technology or Surgical Technology program or permission of the Program Director. | | | L+L 1.0 1.0 1.0 | T |
| SGT135 | 2023 Fall | Instrument Handling I | | Classification of surgical instruments for general surgery including basic laparoscopy, appendectomy, breast procedures, cholecystectomy, colon resection, gastrectomy, hemorrhoidectomy, herniorrhaphy, laparoscopic Nissen fundoplication, liver resection, splenectomy, thyroidectomy, Whipple procedure. Common and proper names for instruments in general surgery. Introduction to aseptic technique for handling instruments. Specific uses, handling, and care for surgical instruments in general surgery. | Prerequisites: None. Corequisites: HCS/SGT102 or permission of Program Director. | Occ<br>Occ | | L+L 3.0 4.0 4.0 | T |
| SGT152 | 2018 Fall | Advanced Surgical Instruments for Surgical Services | HCS152 | Surgical specialty instrumentation care and assembly of instruments to include plastic, gynecologic, urologic, basic bone and joint, head and neck, neurosurgery, cardiovascular and thoracic, microscopic, endoscopes, stapling guns, and robotics procedures. | Prerequisites: A grade of C or better in HCS/SGT102. | | | LEC 2.0 1.0 1.0 LAB 0.0 3.0 3.0 | T |



Occ

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| SGT155 | 2018 Fall | Instrument Handling II | | Classification of specialized surgical instruments for surgical specialties including obstetric and gynecological procedures, genitourinary, otorhinolaryngology, orthopedic, oral and maxillofacial, plastic and reconstructive, ophthalmic, cardiothroacic, peripheral vascular, and neurosurgery. Common and proper names for instruments in the surgical specialties. Specific uses, handling, and care for surgical instruments in the surgical specialties. | Prerequisites: A grade of C or better in SGT135. | | Occ | L+L 1.0 2.0 2.0 | T |
| SGT156 | 2020 Fall | Hospital Central Service Practicum for Surgical Technology | | Short-term supervised student observation and application for 40 hours of central service theory and laboratory skills. Exposure to limited compilation of case carts, building of instrument trays, distribution of supplies, sterilization and inventory. | Prerequisites: A grade of C or better in HCS/SGT102 or permission of Program Director. Corequisites: HCS/SGT152 or permission of Instructor. | | Occ | LAB 0.5 1.5 0.0 | C |
| SGT165 | 2018 Fall | Surgical Procedures I | | General Surgery arena procedures. Pre-operative procedures to include patient`s charts and consent forms. Common diagnostic procedures prior to surgery. Operating room admission procedures and interview, charting, and checklist. Purpose of the post anesthesia care unit (PACU). Impact of specific chronic illnesses on body functions. Issues pertaining to death and dying. Special considerations for the pediatric and geriatric patient. | Prerequisites: A grade of C or better in SGT135. | | Occ | LEC 4.0 2.0 2.0 LAB 0.0 6.0 6.0 | T |
| SGT180 | 2022 Fall | Pharmacology for Surgical Technology I | | Role of surgical technologist in safe handling of drugs according to operating room | Prerequisites: A grade of C or better in SGT135. | | Occ | L+L 2.0 3.0 3.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | policies and procedures. Uses and classification of drugs. Federal and state pharmacy regulations applicable to the surgical patient. Complications and safety issues during topical, local, regional, and general anesthesia. Antibiotic, diagnostic agent, and hemostatic agent administration in the surgical specialties of obstetrics, peripheral vascular, orthopedics, and oncology. | | | | | |
| SGT200 | 2017 Fall | Operating Room Practicum I | | Roles and responsibilities of operating room personnel focusing on the surgical technician under the direction of the clinical facility preceptor demonstrating the role of the surgical technologist and scope of practice and standard of recommendations. | Prerequisites: A grade of C or better in SGT165. | | | LAB 1.0 6.0 0.0 | C |
| SGT205 | 2017 Fall | Operating Room Practicum II | | Reinforcement and broadening of knowledge and skills of the surgical technologist required for pre-operative, intra-operative and post-operative care of the patient undergoing general surgery and specialties. | Prerequisites: A grade of C or better in SGT200. | Occ | | LAB 2.0 12.0 0.0 | C |
| SGT208 | 2018 Fall | Perioperative Case Management | | Pre-operative procedures to include patient's charts and consent forms. Common diagnostic procedures prior to surgery. Operating room admission procedures and interview, charting, and checklist. Purpose of the post anesthesia care unit (PACU). Impact of specific chronic illnesses on body functions. Issues pertaining to death and dying. Special considerations for the pediatric and geriatric | Prerequisites: A grade of C or better in SGT105. | OccOcc | | LEC 1.0 0.5 0.5 LAB 0.0 1.5 1.5 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | patient. Includes a clinical observation experience. | | | | | |
| SGT210 | 2018 Fall | Surgical Procedures II | | General surgical procedures to include ophthalmic, plastic surgery, reconstruction with grafting, obstetric, gynecological, genitourinary, otorhinolaryngology, oral and maxilla facial surgery with lasers and scopes. Surgical techniques as applied to major body systems, anatomical structures. Related abbreviations and usage in the pre-operative, intra-operative and post-operative areas of surgical technology. Surgical care provided by the surgical technologist in the perioperative arena. | Prerequisites: A grade of C or better in SGT165. | | Occ | LEC 4.0 2.0 2.0 LAB 0.0 6.0 6.0 | T |
| SGT220 | 2017 Fall | Operating Room Practicum III | | Intermediate level reinforcement and broadening of knowledge and skills of the surgical technologist required for pre-operative, intra-operative and post-operative care of the patient undergoing general surgery and specialties. | Prerequisites: A grade of C or better in SGT205. | | Occ | LAB 3.0 15.0 0.0 | C |
| SGT225 | 2013 Summer I | Operating Room Practicum IV | | Advanced level reinforcement and broadening of knowledge and skills of the surgical technologist required for pre-operative, intra-operative and post-operative care of the patient undergoing general surgery and specialties. | Prerequisites: A grade of C or better in SGT220. | | Occ | LAB 3.0 15.0 0.0 | C |
| SGT227 | 2013 Summer I | Operating Room Practicum V | | Continued advanced level reinforcement and broadening of knowledge and skills of the surgical technologist required for pre-operative, intra-operative and post-operative care of the patient undergoing general surgery and specialties. | Prerequisites: A grade of C or better in SGT225. | | Occ | LAB 3.0 15.0 0.0 | C |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| SGT230 | 2018 Fall | Surgical Technology Materials Update | PON230 | Current surgical technology materials. Surgical specialty modifications, introductions, technology. Specific uses, handling, application to surgical procedures. | Prerequisites: Currently enrolled in Surgical Technology or Surgical Technology for the Operating Room Nurse program, or Certified Surgical Technologist, or permission of Program Director. | | | LEC 2.0 2.0 2.0 LAB 1.0 3.0 3.0 | T |
| SGT260 | 2020 Fall | Surgical Procedures III | | Specialized surgical procedures of orthopedic, peripheral vascular, cardiovascular, thoracic and neurosurgery to include applications with lasers and scopes. Surgical techniques as applied to major body systems, anatomical structures. Related abbreviations and usage in the pre-operative, intra-operative and post-operative surgical arenas. Care provided by the surgical technologist in each phase of surgery. | Prerequisites: A grade of C or better in SGT210. | Occ | Occ | LEC 2.0 1.0 1.0 LAB 0.0 3.0 3.0 | T |
| SGT275 | 2023 Spring | Certification Examinations Preparation | | Preparation for the National Surgical Technology Certification Examination. Review of the content specifications, techniques for preparation and review of current literature determined by the Liaison Council on Certification for Surgical Technologists. Exploration of career possibilities. | Prerequisites: A grade of C or better in SGT210 or permission of the Program Director. | | Occ | L+L 2.0 3.0 3.0 | T |
| SGT298AA | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment are | Prerequisites: Permission of Program Director or Instructor. | | Occ | LAB 1.0 1.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | made available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | | | | | |
| SGT298AB | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment are made available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | Prerequisites: Permission of Program Director or Instructor. | Occ | | LAB 2.0 2.0 0.0 | Z |
| SGT298AC | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment are made available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | Prerequisites: Permission of Program Director or Instructor. | Occ | | LAB 3.0 3.0 0.0 | Z |
| SLC201 | 2010 Spring | Introduction to Linguistics | | Introduction to the study of language. Study of the nature and diversity of world languages, linguistic structures and functions of language, language variation, pragmatics and the | Prerequisites: None. | Course Attribute(s): General Education Designation: Humanities, Arts and Design - [HU] General Education Designation: Social and Behavioral Sciences - [SB] | Acad | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | learning/acquisition of first and second languages. | | | | | |
| SLC202 | 2019 Spring | Introduction to Literary and Cultural Theory | | Introduction to the study of literary and cultural theory. Interdisciplinary approaches to analyzing literary texts for context, meaning and form. Assessment of various literary genres which may include fiction, film, visual arts and performance. | Prerequisites: A grade of C or better in ENG101 or ENG107. Corequisites: ENG102 or ENG108. | Course Attribute(s): General Education Designation: Humanities, Arts and Design - [HU] General Education Designation: Literacy and Critical Inquiry - [L] | Acad | LEC 3.0 3.0 3.0 | S |
| SLP104 | 2021 Fall | Speech, Language, and Hearing Development | | Provides an overview of the normal development of human communication. Emphasis on normative processes involved in speech, language, and hearing development. Examines the impact of multicultural, multi-linguistic environments on speech and language development. | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| SLP205 | 2021 Fall | Introduction to Communication Disorders | | Explore a variety of communication disorders in children and adults that speech-language pathologists diagnose and treat. Provides an introduction to typical versus disordered communication, the causes, characteristics of a variety of speech, language, hearing, and swallowing disorders, and the effects that they can have on those afflicted with them. | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| SLP210 | 2021 Fall | Speech and Hearing Anatomy and Physiology | | Provides a review of the anatomical systems of respiration, phonation, articulation and resonance and hearing and their relationship to pathologies of speech, language and hearing. Includes basic physiology of systems and the neuroanatomy and neurophysiology related to speech and hearing | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | production mechanisms. Examines the physical characteristics of sound and the structure and function of the human auditory system. | | | | | |
| SLP212 | 2021 Fall | Language Disorders and Rehabilitation | | Examines the nature, causes and treatment of language disorders across the lifespan. Focuses on developmental and acquired language disorders in childhood through adulthood. Includes multicultural/multilingual issues and therapy observations. | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| SLP214 | 2021 Fall | Speech Sound Disorders and Phonetics | | Provides an overview of English phonetics and phonetic transcription including practice with transcription of normal and disordered speech at the entry-level using the International Phonetic Alphabet (IPA). Examines the nature, causes, characteristics and treatment of a variety of speech sound disorders across the lifespan including phonological processes/disorders, articulation, dysarthria, apraxia, and other organic disorders. Includes multicultural/multilingual issues and therapy observations. | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| SLP215 | 2021 Fall | Speech, Language, Hearing Disorders and Rehabilitation | | Examines the nature, causes, and treatment of a variety of speech, language, hearing disorders. Focuses on fluency, voice, hearing, and swallowing/feeding disorders. Expands on language disorders in adolescents and young adults including metacognition and cognitive | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | strategies. Includes therapy observations. | | | | | |
| SLP217 | 2021 Fall | Clinical Ethics and Documentation | | Examines issues associated with professional and ethical behaviors, including the Speech Language Pathology Assistant (SLPA) scope of practice as specified by state and national governing bodies for the profession. Focuses on indirect activities related to client treatment including creation of lessons, implementation of treatment, and documentation. Includes an overview of universal safety precautions, confidentiality, compliance with laws/regulations, and service delivery options in both the educational and health care systems. | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| SLP218 | 2021 Fall | Behavior Management | | Examines a variety of behavior principles, strategies and techniques used with individuals with communication disorders. Focuses on setting up a positive learning environment, increasing motivation and attention, and using Positive Behavioral Interventions and Supports (PBIS) with clients. | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| SLP235AA | 2021 Fall | Speech-Language Pathology Practicum | | Practical experience in completing clinical fieldwork as a Speech Language Pathology Assistant (SLPA). Provides opportunity to create lesson plans, implement therapy, record client performance and maintain appropriate documentation for a variety of speech-language disorders in a therapeutic environment. A minimum of 50 hours for the clinical | Prerequisites: None. | SLP235AA may be repeated for a total of two (2) credit hours. | Occ | L+L 1.0 1.0 1.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | interaction experience in this course is required. | | | | | |
| SLP235AB | 2021 Fall | Speech-Language Pathology Practicum | | Practical experience in completing clinical fieldwork as a Speech Language Pathology Assistant (SLPA). Provides opportunity to create lesson plans, implement therapy, record client performance and maintain appropriate documentation for a variety of speech-language disorders in a therapeutic environment. A minimum of 100 hours for the clinical interaction experience in this course is required. | Prerequisites: None. | | Occ | L+L 2.0 2.0 2.0 | T |
| SLP240 | 2021 Fall | Assistive Technology and Augmentative Communication | | Examines the use of Assistive Technology (AT) and Augmentative Alternative Communication (AAC) systems within various environments to support functional interaction with individuals with disabilities. Focuses on a variety of guiding principles, strategies, accommodations, modifications, computer hardware and software as well as low-tech and high-tech AT and AAC systems. Provides guidelines for need identification and implementation of AT and AAC systems within therapeutic and natural environments. | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| SLP242 | 2021 Fall | Low Incidence Disabilities | | Examines disabilities with a focus on treatment techniques for low incidence disabilities. Focuses on blindness, deafness, moderate to severe intellectual disability, complex health issues, serious motor and physical impairment, | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | multiple disabilities, genetic syndromes, moderate to severe autism, and social emotional disabilities. Includes therapy observations. | | | | | |
| SLP296WA | 2001 Summer I | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor. | | Occ | LAB 1.0 5.0 0.0 | Z |
| SLP296WB | 2001 Summer I | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor. | | Occ | LAB 2.0 10.0 0.0 | Z |
| SLP296WC | 2001 Summer I | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average | | | LAB 3.0 15.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | objectives of the students. COMMON COMPETENCY COURSE | and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor. | | | | |
| SLP296WD | 2001 Summer I | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor. | | Occ | LAB 4.0 20.0 0.0 | Z |
| SLP298AA | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student | Prerequisites: Permission of Program Director or Instructor. | | Occ | LAB 1.0 1.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | development. COMMON COMPETENCY COURSE | | | | | |
| SLP298AB | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | Prerequisites: Permission of Program Director or Instructor. | | Occ | LAB 2.0 2.0 0.0 | Z |
| SLP298AC | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to mazimize student development. COMMON COMPETENCY COURSE | Prerequisites: Permission of Program Director or Instructor. | | Occ | LAB 3.0 3.0 0.0 | Z |
| SOC101 | 2013 Spring | Introduction to Sociology | | The systematic study of social behavior and human groups, particularly the influence of culture, socialization, social structure, stratification, social institutions, differentiation by region, race, ethnicity, sex/gender, age, class, and socio/cultural change upon people's attitudes and behaviors. | Prerequisites: None. | Course Attribute(s): General Education Designation: Social and Behavioral Sciences - [SB] Arizona Shared Unique Number SUN#: SOC 1101 | Acad | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| SOC105 | 2013 Summer I | Introduction to American Indian Studies | AIS105 | Introduction to political, economic, and social structures of American Indian Nations. Provides overview of American Indian tribal cultures prior to contact, the impact of European contact, and the influence of western social systems on tribal nations. | Prerequisites: None. | | Acad | LEC 3.0 3.0 3.0 | S |
| SOC110 | 2018 Fall | Drugs and Society | | Provides a sociological understanding of drug use and policy. Examines social-cultural factors contributing to use and abuse and effects of commonly used drugs on the individual and society. Reviews current theories and research relating to drug use. Introduces extensive coverage of various methods and statistics for measuring drug use. Explores prevention, intervention, and treatment. Examines public policies concerning drug related issues. | Prerequisites: None. | Course Attribute(s): General Education Designation: Social and Behavioral Sciences - [SB] | Acad | LEC 3.0 3.0 3.0 | S |
| SOC112 | 1999 Spring | American Indian Policy | AIS112 | Reviews United States government policies and their impact on American Indian sovereignty. Examines historic, legal, economic, and social issues regarding Indian policies and how they impact Indian Nations and individual Indians. Studies historical as well as contemporary policies created by the Federal Government that define the trust relationship between the United States government and Indian Nations | Prerequisites: None. | | Acad | LEC 3.0 3.0 3.0 | S |
| SOC130 | 2022 Fall | Human Sexuality | | Sociological study of human sexuality. Course examines the social forces that shape a culture's sexual practices, attitudes, and inequalities. | Prerequisites: None. | SOC130 contains mature adult content and some of the topics discussed may be considered "controversial" or "taboo" in some societies and cultures. | Acad | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Topics include the social construction of sexuality, social change, sexual identities, sexual inequalities, institutional influence and regulation of sexuality, as well as current trends and issues surrounding human sexuality. | | Students are expected to be able to engage with the content in a respectful and open-minded way. | | | |
| SOC141 | 2003 Spring | Sovereign Indian Nations | AIS141 | Explores the sovereign status of American Indians as it relates to social relationships, traditions, and culture of American Indians. Reviews historic relations with non-Indian societies, the development of federal Indian law, tribal governments and their functions. Examines treaty rights, environmental issues, public policy, economic development, other current issues, and contemporary social problems | Prerequisites: None. | Course Attribute(s): General Education Designation: Cultural Diversity - [C] General Education Designation: Historical Awareness - [H] General Education Designation: Social and Behavioral Sciences - [SB] | Acad | LEC 3.0 3.0 3.0 | S |
| SOC143 | 1995 Summer I | Sociology of African American Problems | | Social, economic, political and domestic problems encountered by African Americans in typical urban environments. Emphasis on the specific dynamics of adjustment, survival and empowerment of urban African Americans | Prerequisites: None. | | Acad | LEC 3.0 3.0 3.0 | S |
| SOC157 | 2016 Fall | Sociology of Families and Relationships | | Systemic analysis of socio-cultural and historical origins of modern families in the U.S. and their importance, major challenges and changing trends. Explores being single, dating and attraction, love, cohabitation and marriage, family planning and parenthood, conflict and crisis within the family, and divorce. | Prerequisites: None. | General Education Designation: Social and Behavioral Sciences - [SB] | Acad | LEC 3.0 3.0 3.0 | S |
| SOC160 | 2017 Summer | American Indian Law | AIS160 | Analyzes the legal system of the United States Government as it applies to American | Prerequisites: None. | Course Attribute(s): General Education Designation: Cultural Diversity - [C] General | Acad | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Indian Nations. Examines how United States legal institutions have impacted Indian sovereignty. Units of analysis include the development of Indian law, United States Supreme Court decisions, Congressional Acts, treaty rights and the development of tribal governments. Focuses on legal institutions that have abridged the property rights of Indian Nations. | | Education Designation: Historical Awareness - [H] | | | |
| SOC180 | 2016 Fall | Social Implications of Technology | | Effects of development and implementation of technology on society. Historical and multi-cultural comparisons of this process, current concerns addressed, and prospects for the future analyzed. | Prerequisites: None. | | Acad | LEC 3.0 3.0 3.0 | S |
| SOC212 | 2011 Fall | Gender and Society | | A sociological analysis of the way culture shapes and defines the positions and roles of both men and women in society. Major emphasis on social conditions which may lead to a broadening of gender roles and a reduction of gender role stereotypes and the implications of these changes. | Prerequisites: None. | Course Attribute(s): General Education Designation: Cultural Diversity - [C] General Education Designation: Social and Behavioral Sciences - [SB] | Acad | LEC 3.0 3.0 3.0 | S |
| SOC220 | 2018 Spring | Sport and Society | | Applies the sociological perspective to the study of sport. Emphasizes how hierarchies of race, class, and gender in the United States impact the sport experience of fans, athletes, and athletic administrators, as well as how professional, collegiate, and amateur sports have at times played a transformative role in society. | Prerequisites: None. | Course Attribute(s): General Education Designation: Social & Behavioral Science - [SB] | Acad | LEC 3.0 3.0 3.0 | S |
| SOC241 | 2017 Spring | Race and Ethnic Relations | | Examines how the social construction of race shapes social interaction and social | Prerequisites: None. | Course Attribute(s): General Education Designation: Cultural Diversity - [C] General | Acad | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | institutions. Explores the consequences of power, privilege and oppression among major ethnic and racial groups in the United States. | | Education Designation: Social and Behavioral Sciences - [SB] Arizona Shared Unique Number SUN#: SOC 2215 | | | |
| SOC245 | 2017 Fall | Social Deviance | | A sociological analysis of social deviance including a review of theories, individual and social implications of deviant labeling, and relevant aspects of social control. | Prerequisites: None. | | Acad | LEC 3.0 3.0 3.0 | S |
| SOC251 | 2024 Fall | Social Problems | | An overview of the sociological study of social problems and inequalities confronting the United States. Emphasis is placed on what is known about social problems, recent trends, causes and consequences, individual and societal responses, and how social policies might solve social problems. Issues to be examined may include: health care, education, family, economy, environment, drug and alcohol abuse, crime and violence, among others. | Prerequisites: None. | | Acad | LEC 3.0 3.0 3.0 | S |
| SOC253 | 2017 Spring | Social Class and Stratification | | Focus on the class structure of American Society. Effects of social class position on individual life chances. The occurrence, causes and consequences of poverty in the United States. | Prerequisites: None. | | Acad | LEC 3.0 3.0 3.0 | S |
| SOC265 | 2009 Summer I | Sociology of Aging | | Examination of the aging process from post adolescence through old age from interdisciplinary and multicultural perspectives. Emphasis on positive participation in major social institutions and the amelioration of age-related problems | Prerequisites: None. | | Acad | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| SOC266 | 2018 Spring | Sociology Through Film | | Examines movie-going and the experience of spectatorship. Studies how motion pictures reflect, influence, and are influenced by American culture and societal institutions. Explores the role of the movie industry as a vehicle for social commentary, analysis, and criticism. | Prerequisites: None. | Course Attribute(s): General Education Designation: Social & Behavioral Sciences - [SB] | Acad | LEC 3.0 3.0 3.0 | S |
| SOC270 | 2023 Fall | The Sociology of Health and Illness | | The scientific study of the social patterns and social factors (e.g., class, race, gender, religion, ethnicity, kinship networks, marriage, educational status, age, place, and cultural practices) that influence health. The roles of health care providers and patients, various modalities of treatment, prevention and access, and the history, current status, future trends in medicine and medical technology, and complementary health care approaches from a cross-cultural and global sociological perspective. | Prerequisites: None. | | Acad | LEC 3.0 3.0 3.0 | S |
| SOC282AA | 2014 Summer | Service-Learning Experience in Sociology | | Unpaid Service-Learning (SL) experience, completed with approved community partner. | Prerequisites: A grade of C or better in SOC101 and permission of Instructor. | SOC282AA may be repeated for a total of six (6) credit hours. Standard grading available according to procedures outlined in catalog. | Acad | LAB 1.0 1.0 0.0 | L |
| SOC282AB | 2014 Summer | Service-Learning Experience in Sociology | | Unpaid Service-Learning (SL) experience, completed with approved community partner. | Prerequisites: A grade of C or better in SOC101 and permission of Instructor. | SOC282AB may be repeated for a total of six (6) credit hours. Standard grading available according to procedures outlined in catalog. | Acad | LAB 2.0 2.0 0.0 | L |
| SOC282AC | 2014 Summer | Service-Learning Experience in Sociology | | Unpaid Service-Learning (SL) experience, completed with approved community partner. | Prerequisites: A grade of C or better in SOC101 and permission of Instructor. | SOC282AC may be repeated for a total of six (6) credit hours. Standard grading available according to procedures outlined in catalog. | Acad | LAB 3.0 3.0 0.0 | L |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| SOC296WA | 2023 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor. | | Acad | LAB 1.0 5.0 0.0 | Z |
| SOC296WB | 2023 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor. | | Acad | LAB 2.0 10.0 0.0 | Z |
| SOC296WC | 2023 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) | | Acad | LAB 3.0 15.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor. | | | | |
| SOC296WD | 2023 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor. | Acad | | LAB 4.0 20.0 0.0 | Z |
| SOC298AA | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | Prerequisites: Permission of Program Director or Instructor. | Acad | | LAB 1.0 1.0 0.0 | Z |
| SOC298AB | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of | Prerequisites: Permission of Program Director or Instructor. | | | LAB 2.0 2.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | | | | | |
| SOC298AC | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | Prerequisites: Permission of Program Director or Instructor. | | Acad | LAB 3.0 3.0 0.0 | Z |
| SPA055 | 1991 Fall | Fundamentals of Spanish Grammar | | Introduces basic concepts of Spanish pronunciation and grammar for successful study of the language. Emphasis on grammar, sentence structure, and practice of simple dialogues | Prerequisites: None. | | Acad | LEC 1.0 1.0 1.0 | S |
| SPA085AA | 1998 Fall | Speedy Spanish I | | Basic vocabulary and grammar to develop conversational skills in Spanish. Emphasis on speaking skills | Prerequisites: None. | | Acad | LEC 1.0 1.0 1.0 | S |
| SPA085AB | 2014 Fall | Speedy Spanish II | | Intermediate development of vocabulary and grammar to develop conversational skills in Spanish. Emphasis on speaking skills. | Prerequisites: A grade of C or better in SPA085AA. Completion of prerequisites within the last three years is required. | | | LEC 1.0 1.0 1.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| SPA085AC | 2014 Fall | Speedy Spanish III | | Advanced development of vocabulary and grammar to develop conversational skills in Spanish. Emphasis on speaking skills. | Prerequisites: A grade of C or better in SPA085AB. Completion of prerequisites within the last three years is required. | | | LEC 1.0 1.0 1.0 | S |
| SPA095 | 2002 Spring | Speak Spanish I | | Limited vocabulary and grammar to help develop fluency in Spanish. Emphasis on speaking skills | Prerequisites: None. | | Acad | LEC 1.0 1.0 1.0 | S |
| SPA096 | 2014 Fall | Speak Spanish II | | Limited vocabulary and grammar to help develop fluency in Spanish. Emphasis on speaking skills. | Prerequisites: A grade of C or better in SPA095. Completion of prerequisites within the last three years is required. | Acad | | LEC 1.0 1.0 1.0 | S |
| SPA097 | 2014 Fall | Speak Spanish III | | Limited vocabulary and grammar to help develop fluency in spoken Spanish. Emphasis on speaking skills; some written work required. | Prerequisites: A grade of C or better in SPA096. Completion of prerequisites within the last three years is required. | | | LEC 1.0 1.0 1.0 | S |
| SPA101 | 2022 Summer | Elementary Spanish I | | Basic grammar, pronunciation and vocabulary of the Spanish language. Includes the study of the Spanish-speaking cultures. Practice of listening, speaking, reading, and writing skills | Prerequisites: None. | Course Attribute(s): General Education Designation: Global Awareness - [G] in combination with SPA102. Arizona Shared Unique Number SUN#: SPA 1101 | Acad | LEC 4.0 4.0 4.0 | S |
| SPA101AA | 2022 Summer | Elementary Spanish I | | Basic grammar, pronunciation and vocabulary of the Spanish language. Includes the study of the Spanish-speaking cultures. Practice of listening, speaking, reading, and writing skills. | Prerequisites: None. | Course Attributes: General Education Designation: Global Awareness - [G] | Acad | L+L 4.0 5.0 5.0 | T |
| SPA102 | 2022 Summer | Elementary Spanish II | | Continued study of grammar and vocabulary of the Spanish language and study of the Spanish-speaking cultures. Emphasis on speaking, reading, and writing skills. | (A grade of C or better in SPA101 or SPA101AA), or permission of Department or Division. Completion of prerequisites within the last three years is required. | Course Attribute(s): General Education Designation: Global Awareness - [G] in combination with SPA102. Arizona Shared Unique Number SUN#: SPA 1102 | Acad | LEC 4.0 4.0 4.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| SPA102AA | 2022 Summer | Elementary Spanish II | | Continued study of grammar and vocabulary of the Spanish language and study of the Spanish-speaking cultures. Emphasis on speaking, reading, and writing skills. | (A grade of C or better in SPA101 or SPA101AA), or permission of Department or Division. Completion of prerequisites within the last three years is required. | Course Attributes: General Education Designation: Global Awareness - [G] | Acad | L+L 4.0 5.0 5.0 | T |
| SPA103 | 1994 Fall | Elementary Spanish for Spanish Speakers I | | Review of basic Spanish grammar and pronunciation. Emphasis on reading and writing skills in Spanish. For native speakers needing review of essential language skills | Spanish-speaking or permission of Department or Division. | | | LEC 4.0 4.0 4.0 | S |
| SPA104 | 2014 Fall | Elementary Spanish for Spanish Speakers II | | Continued review of grammatical problems in speaking and writing and reading in Spanish. | Prerequisites: A grade of C or better in SPA103 or permission of Department or Division. Completion of prerequisites within the last three years is required. | Acad | | LEC 4.0 4.0 4.0 | S |
| SPA109 | 2023 Fall | Law Enforcement Spanish I | | Conversational and written Spanish for law enforcement personnel. Emphasis on basic sentence structure, pronunciation and vocabulary used in common job-related situations. | Prerequisites: None. | Acad | Acad | LEC 3.0 3.0 3.0 | S |
| SPA111 | 2014 Fall | Fundamentals of Spanish | | Accelerated study of elementary Spanish for students with previous Spanish coursework. Includes basic Spanish grammar, pronunciation, vocabulary and the study of the Spanish-speaking cultures. Emphasis on speaking, listening, reading, and writing skills. | Prerequisites: A grade of C or better in SPA101 or SPA101AA or SPA115 or SPA115AA or two years of high school Spanish or permission of Department or Division. Completion of prerequisites within the last three years is required. | | | LEC 4.0 4.0 4.0 | S |
| SPA115 | 2007 Summer I | Beginning Spanish Conversation I | | Basic pronunciation, vocabulary, sentence structures, and cultural | Prerequisites: None. | Acad | Acad | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | awareness, necessary to develop speaking and listening skills in Spanish | | | | | |
| SPA115AA | 2018 Fall | Beginning Spanish Conversation I | | Conversational Spanish. Basic sentence structure, pronunciation and vocabulary necessary to develop speaking ability in Spanish. Designed for students seeking speaking and listening abilities with little emphasis on grammar | Prerequisites: None. | | Acad | L+L 3.0 4.0 4.0 | T |
| SPA116 | 2014 Fall | Beginning Spanish Conversation II | | Continued study of basic pronunciation, vocabulary, sentence structures, and a cultural awareness necessary to develop speaking and listening skills in Spanish. | Prerequisites: A grade of C or better in SPA115 or SPA115AA or permission of Department or Division. Completion of prerequisites within the last three years is required. | | | LEC 3.0 3.0 3.0 | S |
| SPA116AA | 2018 Fall | Beginning Spanish Conversation II | | Continued development of speaking and listening skills for effective communication in Spanish. | Prerequisites: A grade of C or better in SPA115 or SPA115AA or permission of Department or Division. Completion of prerequisites within the last three years is required. | Acad | | L+L 3.0 4.0 4.0 | T |
| SPA117 | 2023 Fall | Health Care Spanish I | | Basic conversational Spanish for health care workers or students. Emphasis on basic sentence structure, pronunciation and vocabulary used in health care settings. | Prerequisites: None. | Acad | Acad | LEC 3.0 3.0 3.0 | S |
| SPA117AA | 2023 Fall | Health Care Spanish I: Introduction | | Part one of basic medical terminology in Spanish for health care personnel or students. Emphasis on pronunciation and vocabulary needed in health care setting, including coverage of routine information gathered | Prerequisites: None. | | Acad | LEC 1.0 1.0 1.0 | S |
| SPA117AB | 2023 Fall | Health Care Spanish I: Intermediate | | Part two of basic Spanish communication for health care | Prerequisites: A grade of C or better in | | | LEC 1.0 1.0 1.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | personnel or students. Emphasis on pronunciation and vocabulary needed in health care settings, including medications and their use. | SPA117AA or permission of Department or Division. Completion of prerequisites within the last three years is required. | | | | |
| SPA118 | 2023 Fall | Health Care Spanish II | | Basic conversational Spanish for health care personnel or students. Emphasis on basic sentence structure, pronunciation, and vocabulary used in health care settings. | Prerequisites: A grade of C or better in SPA117 or permission of Department or Division. Completion of prerequisites within the last three years is required. | | | LEC 3.0 3.0 3.0 | S |
| SPA119 | 2006 Spring | Spanish for Educational Settings I | | Basic conversational Spanish for teachers, counselors, administrators and other school personnel. Emphasis on basic sentence structure, pronunciation and vocabulary used in educational settings | Prerequisites: None. | Acad | Acad | LEC 3.0 3.0 3.0 | S |
| SPA120 | 2014 Fall | Spanish for Educational Settings II | | Basic conversational Spanish for teachers, counselors, administrators and other school personnel. Continuation of SPA119, expanding into secondary and post- secondary educational settings. Emphasis on basic sentence structure, pronunciation and vocabulary. | Prerequisites: A grade of C or better in SPA119 or permission of Department or Division. Completion of prerequisites within the last three years is required. | | | LEC 3.0 3.0 3.0 | S |
| SPA130 | 2022 Spring | Spanish for First Responders and 911 Emergencies | | Beginning conversational Spanish for first responders and 911 emergency personnel. Emphasis on basic sentence structure, pronunciation, vocabulary, and cultural awareness necessary to develop Spanish speaking and listening skills in medical and non-medical emergencies. | Prerequisites: None. | Acad | Acad | LEC 3.0 3.0 3.0 | S |
| SPA201 | 2014 Fall | Intermediate Spanish I | | Continued study of essential Spanish grammar and Spanish-speaking cultures. | Prerequisites: A grade of C or better in SPA102, or SPA102AA, | Course Attribute(s): General Education Designation: Global Awareness - [G] Arizona | Acad | LEC 4.0 4.0 4.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Continued practice and development of reading, writing, and speaking skills in Spanish. Emphasis on fluency and accuracy in spoken Spanish. | or SPA111, or permission of Department or Division. Completion of prerequisites within the last three years is required. | Shared Unique Number SUN#: SPA 2201 | | | |
| SPA202 | 2014 Fall | Intermediate Spanish II | | Review of grammar, continued development of Spanish language skills with continued study of the Spanish-speaking cultures. | A grade of C or better in SPA201, or permission of Department or Division. Completion of prerequisites within the last three years is required. | Course Attribute(s): General Education Designation: Global Awareness - [G] Arizona Shared Unique Number SUN#: SPA 2202 | Acad | LEC 4.0 4.0 4.0 | S |
| SPA203 | 2021 Fall | Spanish for Spanish-Speaking Students I | | Designed for Spanish-speaking students. Emphasis on written composition, grammar review, punctuation and spelling, literature and conversation. May be taken in lieu of SPA201. | Prerequisites: Permission of Instructor or Department Chair. | Course Attribute(s): General Education Designation: Cultural Diversity - [C] General Education Designation: Global Awareness - [G] | Acad | LEC 4.0 4.0 4.0 | S |
| SPA204 | 2021 Fall | Spanish for Spanish-Speaking Students II | | Designed for Spanish-speaking students. Advanced study of Spanish grammar, composition, literature, and conversation. | Prerequisites: A grade of C or better in SPA203 or SPA201 or permission of Department or Division. Completion of prerequisites within the last three years is required. | SPA204 may be taken in lieu of SPA202. Course Attribute Course Attribute(s): General Education Designation: Cultural Diversity - [C] General Education Designation: Global Awareness - [G] | Acad | LEC 4.0 4.0 4.0 | S |
| SPA205 | 2017 Summer | Spanish for Medical Interpretation I | | Introduction to Spanish interpretation for medical interpreters. Covers code of ethics, national standards and medical interpreter's responsibilities as well as cultural awareness and legal issues. Interpretation for first responders included. | Prerequisites: A grade of B or better in SPA202 or permission of Department or Division. Completion of prerequisites within the last three years is required. | | | LEC 3.0 3.0 3.0 | S |
| SPA206 | 2017 Summer | Spanish for Medical Interpretation II | | Continuation of Spanish interpretation for medical interpreters. Medical vocabulary and translation relating to human anatomy and physiology emphasized. | Prerequisites: A grade of B or better in SPA205 or permission of Department or Division. Completion of prerequisites within the | Acad | | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | last three years is required. | | | | |
| SPA217 | 2014 Fall | Spanish for Business Communication | | Continued development of Spanish language skills with emphasis on topics related to conducting business in Spanish-speaking cultures. | Prerequisites: A grade of C or better in GBS151 and (SPA201 or permission of Department or Division). Completion of prerequisites within the last three years is required. | | | LEC 4.0 4.0 4.0 | S |
| SPA225 | 2014 Fall | Intermediate Spanish Conversation I | | Continued study of vocabulary, sentence structures, and cultural awareness necessary to improve speaking and listening skills in Spanish. Emphasis on fluency and accuracy in spoken Spanish. | Prerequisites: A grade of C or better in SPA102 or SPA102AA or SPA116 or SPA116AA or permission of Department or Division. Completion of prerequisites within the last three years is required. | Acad | | LEC 3.0 3.0 3.0 | S |
| SPA226 | 2014 Fall | Intermediate Spanish Conversation II | | Continued study of vocabulary, sentence structures, and cultural awareness necessary to improve speaking and listening skills in increasingly complex Spanish. Emphasis on fluency and moderate accuracy in spoken Spanish. | Prerequisites: A grade of C or better in SPA201 or SPA225 or permission of Department or Division. Completion of prerequisites within the last three years is required. | Acad | | LEC 3.0 3.0 3.0 | S |
| SPA235 | 2014 Fall | Advanced Spanish Conversation I | | Continued development of skills in conversational fluency. Class conducted completely in Spanish. | Prerequisites: A grade of C or better in SPA226 or permission of Department or Division. Completion of prerequisites within the last three years is required. | Acad | | LEC 3.0 3.0 3.0 | S |
| SPA236 | 2014 Fall | Advanced Spanish Conversation II | | Further development of skills in conversational fluency. Grammar presented only to clarify student errors. | Prerequisites: A grade of C or better in SPA235 or permission of Department or Division. Completion of prerequisites within the | Acad | | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | last three years is required. | | | | |
| SPA237 | 2024 Fall | Spanish Legal Terminology | | Emphasis on legal terminology, including specific vocabulary and linguistic structures. Conducted entirely in Spanish. | Prerequisites: A grade of C or better in SPA202, or equivalent, or permission of Instructor. | | Acad | LEC 3.0 3.0 3.0 | S |
| SPA241 | 2014 Fall | Spanish and Spanish-American Film I | | Analysis of Spanish and Spanish-American film as art form and as social commentary. Includes documentary, biography, and films based on works of literature. All films, coursework, class participation, and oral and written reports conducted in Spanish. | Prerequisites: A grade of C or better in SPA202 or permission of Department or Division. Completion of prerequisites within the last three years is required. | Course Attribute(s): General Education Designation: Global Awareness - [G] General Education Designation: Humanities, Arts and Design - [HU] | Acad | LEC 3.0 3.0 3.0 | S |
| SPA242 | 2014 Fall | Spanish and Spanish-American Film II | | Analysis and critique of movies presented in the Spanish language and produced by cinematographers from Bolivia, Paraguay, Venezuela, Ecuador, Puerto Rico, Costa Rica and the Mexican independent film producers. Includes documentary, biography, and works of literature and their film versions as art form and social commentary. | Prerequisites: A grade of C or better in SPA241 or permission of Department or Division. Completion of prerequisites within the last three years is required. | All SPA242 coursework, class participation, oral and written reports are in Spanish. Course Attribute(s): General Education Designation: Global Awareness - [G] General Education Designation: Humanities, Arts and Design - [HU] | Acad | LEC 3.0 3.0 3.0 | S |
| SPA251 | 2014 Fall | Spanish Civilization | | An introduction to Spanish civilization with a focus on the culture of Spain. History of Spain and each period's cultural manifestations, including economic, sociological, and political factors as well as cultural artifacts such as architecture, literature, visual arts, music, and gastronomy. | Prerequisites: Four years of high school Spanish or a grade of C or better in SPA202 or permission of Department or Division. Completion of prerequisites within the last three years is required. | | | LEC 3.0 3.0 3.0 | S |
| SPA265 | 2014 Fall | Advanced Spanish I | | Introduction and study of Spanish and Spanish-American literature. Selected | Prerequisites: A grade of C or better in SPA202 or permission | Acad | | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | readings from most Spanish-speaking countries. All discussions, oral reports, and written assignments are in Spanish. | of Department or Division. Completion of prerequisites within the last three years is required. | | | | |
| SPA266 | 2014 Fall | Advanced Spanish II | | Further study of Spanish and Spanish-American literature. Reading selections from most Spanish-speaking countries. All oral reports, discussions, and written reports in Spanish. Graduated level of difficulty from the literature studied in SPA265. | Prerequisites: A grade of C or better in SPA265 or permission of Department or Division. Completion of prerequisites within the last three years is required. | Course Attribute(s): General Education Designation: Humanities, Arts and Design - [HU] | Acad | LEC 3.0 3.0 3.0 | S |
| SPA282AA | 2014 Summer | Service-Learning Experience in Spanish | | Unpaid Service-Learning (SL) experience, completed with approved community partner. | Prerequisites: Permission of Instructor. | SPA282AA may be repeated for a total of six (6) credit hours. Standard grading available according to procedures outlined in catalog. | Acad | LAB 1.0 1.0 0.0 | L |
| SPA282AC | 2014 Summer | Service-Learning Experience in Spanish | | Unpaid Service-Learning (SL) experience, completed with approved community partner. | Prerequisites: Permission of Instructor. | SPA282AC may be repeated for a total of six (6) credit hours. Standard grading available according to procedures outlined in catalog. | Acad | LAB 3.0 3.0 0.0 | L |
| SPA296WA | 2023 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor. | | Acad | LAB 1.0 5.0 0.0 | Z |
| SPA296WB | 2023 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 | | | LAB 2.0 10.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | related to the career objectives of the students. | grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor. | | | | |
| SPA296WC | 2023 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor. | | Acad | LAB 3.0 15.0 0.0 | Z |
| SPA296WD | 2023 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is | | Acad | LAB 4.0 20.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | related to student's major or career interest or with permission of the Instructor. | | | | |
| SPA298AA | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | Prerequisites: Permission of Program Director or Instructor. | Acad | | LAB 1.0 1.0 0.0 | Z |
| SPA298AB | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | Prerequisites: Permission of Program Director or Instructor. | Acad | | LAB 2.0 2.0 0.0 | Z |
| SPA298AC | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. | Prerequisites: Permission of Program Director or Instructor. | | | LAB 3.0 3.0 0.0 | Z |



Acad

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | | | | | |
| SPE341 | 2023 Fall | Special Education: Language Development and Disorders | | Language development and language acquisition of typical children and children with disabilities. Includes language characteristics of children with a variety of disabilities and the creation of enhanced learning experiences in the classroom. Covers augmentative and alternative communication tools. Also compares language disorders and language differences. | Prerequisites: Formal acceptance to a Maricopa Community College state approved teacher preparation program or permission of Department or Division. | | | LEC 2.0 2.0 2.0 | S |
| SPE343 | 2023 Fall | Special Education: Effective Collaboration and Communication Practices | | Focuses on principles of effective collaboration, consultation, and co-teaching to improve programs, services, and outcomes for students with disabilities and their families. Topics include interpersonal communication strategies and collaboration tools for working with diverse groups of people. | Prerequisites: Formal acceptance to a Maricopa Community College state approved teacher preparation program or permission of Department or Division. | Acad | | LEC 1.0 1.0 1.0 | S |
| SPE376 | 2023 Fall | Special Education: Classroom Management and Behavioral Analysis | | Application of research-based strategies in classroom management and behavioral analysis. Focuses on the classroom as a multidimensional environment in which principles of design, communication, management, and resources determine behavioral management success. Emphasis on positive behavior supports, group dynamics, student motivation, discipline models, and current research findings related to classroom | Prerequisites: Formal acceptance to a Maricopa Community College state approved teacher preparation program or permission of Department or Division. EDU221 recommended but not required. | SPE376 requires field experience in a K-12 classroom.<br>Acad | Acad | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | management and behavior analysis. | | | | | |
| SPE409 | 2023 Fall | Special Education: Law, Policy, and Practice | | Overview of special education legislation and litigation as it applies in K-12 settings. Examines federal and state level statutes and regulations, including the Individuals with Disabilities Education Act (IDEA), the Americans with Disabilities Act (ADA), Section 504 of the Rehabilitation Act of 1973. Covers regulations governing assessment and evaluation procedures, due process, mediation, manifestation determination, and disciplinary action. Emphasis on the development, implementation, and evaluation of individual education plans (IEPs), free appropriate public education (FAPE), and least restrictive environment (LRE). Focuses on students' and parents' legal rights and schools' responsibilities regarding special education. The Council for Exceptional Children (CEC) Code of Ethics will be examined. | Prerequisites: Formal acceptance to a Maricopa Community College state approved teacher preparation program or permission of Department or Division. EDU222 recommended but not required. | Acad | | LEC 3.0 3.0 3.0 | S |
| SPE422 | 2023 Fall | Special Education: Mild to Moderate Disabilities | | Application of research-based instruction in special education, including lesson planning, instructional design, assessment accommodations, modification, strategies, and materials appropriate for teaching individuals with mild to moderate disabilities in a variety of educational settings. Covers characteristics, etiologies, legal and educational provisions. | Prerequisites: Formal acceptance to a Maricopa Community College state approved teacher preparation program or permission of Department or Division. | SPE422 requires an approved field experience. | Acad | LEC 4.0 4.0 4.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| SPE424 | 2023 Fall | Special Education: Assessment and Eligibility of Exceptional Learners | | Examines eligibility criteria for students to receive and maintain special education and related services. Overviews nondiscriminatory assessments and adaptive behavior measurements, including educational achievement tests, standardized diagnostic tests, and intelligence tests, as well as the concepts, laws, current issues, and procedures that relate to formal and informal assessment of students. Analyzes the relationship between assessment data and instruction. | Prerequisites: Formal acceptance to a Maricopa Community College undergraduate state approved teacher preparation program or permission of Department or Division. | Acad | | LEC 4.0 4.0 4.0 | S |
| SPE477 | 2023 Fall | Student Teaching: Special Education (Mild to Moderate Disabilities) | | Supervised student teacher practicum in a K-12 special education setting. Students are expected to demonstrate appropriate assessment strategies, develop lesson plans, implement instructional strategies, and utilize behavior management systems and programs. Emphasis on the provision of individualized instruction to meet the requirements of Individuals with Disabilities Education Act (IDEA). | Prerequisites: Formal acceptance to a Maricopa Community College state approved teacher preparation program or permission of Department or Division. | SPE477 requires a minimum of eight (8) weeks, full-time classroom instruction. | Acad | LAB 6.0 6.0 0.0 | Z |
| SPH241 | 2014 Fall | Spanish and Latin American Film in Translation | | A survey of Spanish and Spanish-American film as art form and as social commentary. Includes documentary, biography, and films based on works of literature. Coursework, class participation, and oral and written reports conducted in English. | Prerequisites: None. | Course Attribute(s): General Education Designation: Global Awareness - [G] General Education Designation: Humanities, Arts and Design - [HU] | Acad | LEC 3.0 3.0 3.0 | S |
| SPH245 | 1996 Fall | Hispanic Heritage in the Southwest | | A survey of Hispanic heritage in the Southwest. Cultural and social institutions and their | Prerequisites: None. | | Acad | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | contribution to the development of the region and its heritage | | | | | |
| SPH296WA | 2023 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor. | | Acad | LAB 1.0 5.0 0.0 | Z |
| SPH296WB | 2023 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor. | | Acad | LAB 2.0 10.0 0.0 | Z |
| SPH296WC | 2023 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to | | | LAB 3.0 15.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor. | | | | |
| SPH296WD | 2023 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor. | | Acad | LAB 4.0 20.0 0.0 | Z |
| SPH298AA | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | Prerequisites: Permission of Program Director or Instructor. | | Acad | LAB 1.0 1.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| SPH298AB | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | Prerequisites: Permission of Program Director or Instructor. | | Acad | LAB 2.0 2.0 0.0 | Z |
| SPH298AC | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | Prerequisites: Permission of Program Director or Instructor. | | Acad | LAB 3.0 3.0 0.0 | Z |
| SPT265 | 2023 Fall | Theory of Coaching | | Discusses the impact of sports on the American culture, legal liabilities of coaching, principles of a coaching philosophy, the role of teaching skill, physical conditioning and nutrition in coaching, components of team/group psychology and dynamics, motivation and aggression in sport. | Prerequisites: None. EXS281 suggested but not required. | | | LEC 3.0 3.0 3.0 | S |
| SPT265BA | 2023 Fall | Baseball Theory of Coaching | | Reviews the principles, philosophy, strategies and | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |

Occ

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | theory of coaching baseball, as a competitive sport. | | | | | |
| SPT265BB | 2023 Fall | Basketball Theory of Coaching | | Reviews the principles, philosophy, strategies and theory of coaching basketball, as a competitive sport. | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| SPT265FB | 2023 Fall | Football Theory of Coaching | | Reviews the principles, philosophy, strategies and theory of coaching football, as a competitive sport. | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| SPT265GO | 2023 Fall | Golf Theory of Coaching | | Reviews the principles, philosophy, strategies and theory of coaching golf, as a competitive sport. | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| SPT265SB | 2023 Fall | Softball Theory of Coaching | | Reviews the principles, philosophy, strategies and theory of coaching softball, as a competitive sport. | Prerequisites: None. | SPT265SB may not be repeated for credit. | Occ | LEC 3.0 3.0 3.0 | S |
| SPT271 | 2023 Fall | Sports Medicine Foundations | | Introduction to sports medicine knowledge, techniques, and careers. Exploration of current trends in athletic injury prevention, management and rehabilitation including wound care, taping, wrapping, bracing, splinting and protective equipment. | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| SPT273 | 2023 Fall | Athletic Training: Advanced Wrapping and Taping Techniques | | Expands and enhances practical uses of basic taping and wrapping skills. Hands-on experience in the use of braces, athletic taping, and elastic wraps to care for athletic injuries | Prerequisites: A grade of C or better in SPT271 or permission of Instructor. | | Occ | LEC 2.0 2.0 2.0 | S |
| SPT275 | 2023 Fall | Rehabilitation and Therapeutic Interventions in Sports Medicine | | Exploration of current trends in the basic and advanced methodologies used in the rehabilitation of athletic injuries. Incorporates demonstrations of injury-appropriate strength and fitness training and therapeutic exercise techniques. | Prerequisites: A grade of C or better in SPT271. | | Occ | L+L 3.0 4.0 4.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| SPT281 | 2023 Fall | Methods of Coaching | | Comprehensive overview of the art and science of coaching, including development of coaching philosophy, techniques of sport pedagogy, practical application of sports skill teaching, sport physiology, nutrition, sport/team management and self management. | Prerequisites: None. PED265 suggested but not required. | | | LEC 3.0 3.0 3.0 | S |
| SPT281BA | 2023 Fall | Baseball Methods of Coaching | | Overview of the art and science of coaching baseball including: identifying various coaching styles, elements of effective communication, methods and techniques of coaching baseball. | Prerequisites: None. | Occ | Occ | LEC 3.0 3.0 3.0 | S |
| SPT281FB | 2023 Fall | Football Methods of Coaching | | Overview of the art and science of coaching football including: identifying various coaching styles, elements of effective communication, methods and techniques of coaching football. | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| SPT281GO | 2023 Fall | Golf Methods of Coaching | | Overview of the art and science of coaching golf including: identifying various coaching styles, elements of effective communication, methods and techniques of coaching golf. | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| SPT281SO | 2023 Fall | Soccer Methods of Coaching | | Overview of the art and science of coaching soccer including: identifying various coaching styles, elements of effective communication, methods and techniques of coaching soccer. | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| SSH111 | 2012 Fall | Sustainable Cities | | Introduction to the field of sustainability and exploration of the practices leading to the development of sustainable cities. Explores the concept of sustainable development of | Prerequisites: None. | Course Attribute(s): General Education Designation: Global Awareness - [G] General Education Designation: Humanities, Arts and Design - [HU] General Education | Acad | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | cities within local, regional, and global contexts. | | Designation: Social and Behavioral Sciences - [SB] | | | |
| SSH298AA | 2014 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. | Prerequisites: Permission of Program Director or Instructor. | | Acad | LAB 1.0 1.0 0.0 | Z |
| SSH298AB | 2014 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. | Prerequisites: Permission of Program Director or Instructor. | | Acad | LAB 2.0 2.0 0.0 | Z |
| SSH298AC | 2014 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be | Prerequisites: Permission of Program Director or Instructor. | | Acad | LAB 3.0 3.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | combined to maximize student development. | | | | | |
| STO100 | 2008 Summer I | Introduction to Storytelling | | Introduction to the art of storytelling. Finding, crafting and telling traditional, fact-based, and personal stories in and out of class | Prerequisites: None. | | Acad | LEC 3.0 3.0 3.0 | S |
| STO100AA | 2008 Summer I | How to Tell Traditional Stories | | Introduction to the art of storytelling. Finding, crafting and telling a traditional story in and out of class | Prerequisites: None. | | Acad | LEC 1.0 1.0 1.0 | S |
| STO100AB | 2008 Summer I | How to Tell Fact-Based Stories | | Introduction to the art of storytelling. Finding, crafting and telling fact-based stories in and out of class | Prerequisites: None. | | Acad | LEC 1.0 1.0 1.0 | S |
| STO100AC | 2008 Summer I | How to Tell Personal Stories | | Introduction to the art of storytelling. Finding, crafting and telling personal stories in and out of class | Prerequisites: None. | | Acad | LEC 1.0 1.0 1.0 | S |
| STO101 | 2002 Spring | Storytelling for Literacy | | Introduction to the natural process from oral to written language and the role of storytelling in both. Focus will be on the development and sharing of oral and written stories | Prerequisites: None. | | Acad | LEC 1.0 1.0 1.0 | S |
| STO145 | 2018 Fall | Digital Storybook | ART145 COM145 | Enables students to find and develop a narrative representing an aspect of their personal histories. Use of digital technology to produce and archive a storybook | Prerequisites: None. | | Acad | L+L 1.0 2.0 2.0 | T |
| STO150 | 2018 Fall | Digital Storytelling | ART150 COM150 | Enables students to find and develop their personal stories. Emphasis on the use of digital technology to create, edit, produce and archive a digital story | Prerequisites: None. | | Acad | L+L 3.0 6.0 6.0 | T |
| STO200AA | 2002 Summer I | Biographical Storytelling | | Exploration of the art and craft of finding, developing and telling biographical stories | Prerequisites: None. | | Acad | LEC 1.0 1.0 1.0 | S |
| STO202 | 2013 Spring | Bilingual Storytelling | | Introduction to bilingual storytelling as a genre. Research, develop, and craft bilingual stories. Find appropriate contexts and | Prerequisites: None. | | Acad | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | venues for telling. Assist in the integration and application of bilingual storytelling to the learning environment in the classroom. | | | | | |
| STO205 | 2012 Fall | Establishing a Family Storytelling Tradition | | Developing a family storytelling tradition. Finding, crafting, telling and preserving the stories of family members past and present, including the traditional stories associated with the family's cultural heritages. Sharing stories in family and community contexts. | Prerequisites: None. | | Acad | LEC 3.0 3.0 3.0 | S |
| STO250AA | 2007 Fall | Benefiting from the Storytelling Festival Experience | | Observation of master storytellers in performance. Structured observation, inquiry, and reflection in the context of a major national storytelling festival. | Prerequisites: None. | STO250AA may be taken up to 3 times for different festival experiences. | Acad | LEC 1.0 1.0 1.0 | S |
| STO273 | 2018 Summer | The Biblical Storytelling Tradition | | Introduction to the history and practice of biblical storytelling. Overview of the oral foundation of biblical texts and teachings. Utilization of exegesis to develop and adapt stories for modern audiences. Researching, developing, and crafting Bible stories for telling. Telling biblical stories in family, community, and spiritual settings. | Prerequisites: None. | | Acad | LEC 3.0 3.0 3.0 | S |
| STO279 | 2020 Fall | Creating and Telling Fact-Based Historical Stories | HIS279 | Creating and telling fact-based stories and stories from history. | Prerequisites: A grade of C or better in EDU/HUM/STO292. | HIS/STO279 may be repeated for a total of six (6) credit hours. | Acad | LEC 3.0 3.0 3.0 | S |
| STO282AA | 2014 Summer | Service-Learning Experience in Storytelling | | Unpaid Service-Learning (SL) experience, completed with approved community partner. | Prerequisites: Permission of Instructor. | STO282AA may be repeated for a total of six (6) credit hours. Standard grading available according to procedures outlined in catalog. | Acad | LAB 1.0 1.0 0.0 | L |
| STO282AB | 2014 Summer | Service-Learning Experience in Storytelling | | Unpaid Service-Learning (SL) experience, completed with approved community partner. | Prerequisites: Permission of Instructor. | STO282AB may be repeated for a total of six (6) credit hours. Standard grading available | Acad | LAB 2.0 2.0 0.0 | L |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | according to procedures outlined in catalog. | | | |
| STO282AC | 2014 Summer | Service-Learning Experience in Storytelling | | Unpaid Service-Learning (SL) experience, completed with approved community partner. | Prerequisites: Permission of Instructor. | STO282AC may be repeated for a total of six (6) credit hours. Standard grading available according to procedures outlined in catalog. | Acad | LAB 3.0 3.0 0.0 | L |
| STO283 | 2008 Fall | The African Storytelling Tradition | | Introduction to the history and practice of storytelling in Africa. Overview of African myths, legends, folktales, parables, and fables. Great story tellers and story collectors of the past and present. Researching, developing, and crafting African stories for telling | Prerequisites: None. | | Acad | LEC 3.0 3.0 3.0 | S |
| STO284 | 2012 Fall | Storytelling and Music | | Introduction to the role and importance of music in storytelling. Research, craft, and tell stories that include percussion, vocal, or instrumental elements. | Prerequisites: None. | | Acad | LEC 3.0 3.0 3.0 | S |
| STO285 | 2012 Fall | Creating/Performing Solo/Collaborative Works | THP285 | Developing, rehearsing, and performing solo and collaborative works for fringe festivals and other storytelling and theatre venues. | Prerequisites: None. | | Acad | LEC 3.0 3.0 3.0 | S |
| STO286 | 2001 Fall | Using Storytelling in a Variety of Settings | | The application of storytelling and storytelling activities in the world of health care, business, parks, museums, hospitals, and education | Prerequisites: None. | | Acad | LEC 3.0 3.0 3.0 | S |
| STO287 | 2018 Summer | Norse and Scandinavian Storytelling Tradition | | Overview of Norse and Scandinavian myths, legends, folktales. Impact of Norse and Scandinavian myth on popular culture. Researching, developing, and crafting Norse and Scandinavian stories for telling, game development, structuring graphic novels and other applications. | Prerequisites: None. | | Acad | LEC 3.0 3.0 3.0 | S |
| STO288 | 2019 Spring | Telling Sacred Stories from Around the World | | Introduction to sacred stories as a genre. Researching, developing, and crafting | Prerequisites: None. | Course Attribute(s): General Education Designation: Global Awareness - [G] | Acad | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | traditional and personal sacred stories. Finding appropriate applications and venues for telling. | | | | | |
| STO289AA | 2023 Fall | Using Storytelling in Educational Settings | | The application of storytelling and storytelling activities in educational settings. | Prerequisites: None. | | Acad | LEC 1.0 1.0 1.0 | S |
| STO289AB | 2001 Fall | Using Storytelling in Business Settings | | The application of storytelling and storytelling activities in business settings | Prerequisites: None. | | Acad | LEC 1.0 1.0 1.0 | S |
| STO289AC | 2001 Fall | Using Storytelling in Healing Settings | | The application of storytelling and storytelling activities in healing settings | Prerequisites: None. | | Acad | LEC 1.0 1.0 1.0 | S |
| STO289AD | 2001 Fall | Using Storytelling in Interpretive Settings | | The application of storytelling and storytelling activities in interpretive settings including museums, gardens, parks, and zoos | Prerequisites: None. | | Acad | LEC 1.0 1.0 1.0 | S |
| STO289AE | 2012 Fall | Using Storytelling in Toastmasters | | The application of storytelling and storytelling activities in speaking and leadership groups such as Toastmasters. | Prerequisites: None. | | Acad | LEC 1.0 1.0 1.0 | S |
| STO289AF | 2012 Fall | Using Storytelling in Family Settings | | The application of storytelling and storytelling activities in family settings, such as family story nights, holidays, and reunions. Emphasis on finding and sharing family stories. | Prerequisites: None. | | Acad | LEC 1.0 1.0 1.0 | S |
| STO289AG | 2012 Fall | Using Storytelling in Advocacy Settings | | The application of storytelling and storytelling activities in contexts of advocacy and civic engagement. Focus on stories that reflect the goals and aims of a civic organization. | Prerequisites: None. | | Acad | LEC 1.0 1.0 1.0 | S |
| STO290 | 2016 Spring | The Irish Storytelling Tradition | | Introduction to the history and practice of storytelling in Ireland. Overview of Irish myths, legends, folktales, and humorous tales. Great story tellers and story collectors of the past and present. Researching, developing, and crafting Irish stories for telling | Prerequisites: None. | Course Attribute(s): General Education Designation: Global Awareness - [G] | Acad | LEC 3.0 3.0 3.0 | S |
| STO291AA | 2018 Fall | Storytelling Circle | | Designed to provide opportunities for students to | Prerequisites: A grade of C or better in | STO291AA may be repeated for a total of three (3) credits. | Acad | L+L 1.0 1.5 1.5 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | practice and develop critical listening and storytelling skills. | EDU/HUM/STO292 or permission of Instructor. | | | | |
| STO292 | 2023 Fall | The Art of Storytelling | EDU292 HUM292 | Explore the art and origin of storytelling. Provide a variety of storytelling techniques, styles and exercises to enhance the delivery of telling stories. Assist in the integration and application of storytelling to the learning environment in the classroom. | Prerequisites: None. | Course Attribute(s): General Education Designation: Humanities, Arts and Design - [HU] | Acad | LEC 3.0 3.0 3.0 | S |
| STO293 | 2001 Fall | The Art of Storytelling II | | Further exploration of the art of storytelling. Provide opportunities for the expansion of storytelling skills and a deeper appreciation of storytelling and its applications | Prerequisites: A grade of C or better in EDU292 or HUM292 or STO292. | | Acad | LEC 3.0 3.0 3.0 | S |
| STO294 | 2001 Fall | Multicultural Folktales | EDU294 ENH294 | Study of multicultural folktales, exploring the impact of the oral tradition in American society and showing classroom applications | Prerequisites: None. | General Education Designation: Cultural Diversity - [C] General Education Designation: Humanities, Arts and Design - [HU] | Acad | LEC 3.0 3.0 3.0 | S |
| STO295 | 2021 Spring | Traditional Storytelling Around the World | | Introduction to traditional storytelling practices around the world. Understanding the roles and techniques of traditional storytellers. Telling traditional stories ethically. | Prerequisites: None. | Course Attribute(s): General Education Designation: Humanities, Arts and Design - [HU] General Education Designation: Global Awareness - [G] | Acad | LEC 3.0 3.0 3.0 | S |
| STO297 | 2001 Summer I | Creating and Telling Personal Stories | | Exploration of the art and craft of finding, developing and telling personal stories. | Prerequisites: A grade of C or better in EDU292 or HUM292 or STO292. | | Acad | LEC 3.0 3.0 3.0 | S |
| STO298AA | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be | Prerequisites: Permission of Program Director or Instructor. | | Acad | LAB 1.0 1.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | combined to m COMMON COMPETENCY COURSE | | | | | |
| STO298AB | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to m COMMON COMPETENCY COURSE | Prerequisites: Permission of Program Director or Instructor. | | Acad | LAB 2.0 2.0 0.0 | Z |
| STO298AC | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to m COMMON COMPETENCY COURSE | Prerequisites: Permission of Program Director or Instructor. | | Acad | LAB 3.0 3.0 0.0 | Z |
| SUN101 | 2005 Spring | Basic Math for Carpenters | | Mathematical concepts and operations for the carpentry trade. Addition, subtraction, multiplication and division of whole, decimal, fractional and metric numbers. Linear, angular, circular, surface and volume measurements. Basic geometry | Prerequisites: Registered apprentice status or permission of the Apprenticeship Coordinator. | | Occ | LEC 2.0 2.0 2.0 | S |
| SUN104 | 2005 Spring | Site Preparation I | | Trade terms, local zoning and building ordinances, and plot plan layout. Installation of batter boards and establishing | Prerequisites: (Registered apprentice status and a grade of C or better in SUN101) or permission of the | | | LEC 1.0 1.0 1.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | building lines. Set up and use of a builder's level. | Apprenticeship Coordinator. | | | | |
| SUN105 | 2011 Fall | Reading Plans and Elevations | | Construction drawings, lines, symbols, dimensions and abbreviations. Specifications and site and plot plan development. Includes plan and elevation reading exercises. | Prerequisites: (Registered apprentice status and a grade of C or better in ABC123) or permission of the Apprenticeship Coordinator. | | Occ | LEC 2.0 2.0 2.0 | S |
| SUN108 | 2005 Spring | Wall Systems, Tilt-Up | | History and evolution of tilt-up construction processes. Tilt-up versus concrete block or poured in place concrete walls. Testing of concrete and preparation of the slab for tilt-up. Grading and finishing concrete slabs and forming tilt-up panels. Lifting and bracing panels. | Prerequisites: (Registered apprentice status and a grade of C or better in SUN103) or permission of the Apprenticeship Coordinator. | | Occ | LEC 1.5 1.5 1.5 | S |
| SUN109 | 2010 Spring | Site Preparation II | | Basic field engineering including terminology, methods of land description and the use of tools and instruments. Government land survey system procedures and specific procedures for field surveying. | Prerequisites: Registered apprentice status and a grade of C or better in SUN101 and SUN104 or permission of the Apprenticeship Coordinator. | | Occ | LEC 2.0 2.0 2.0 | S |
| SUN110 | 2005 Spring | Forming | | Concrete formwork including terminology, layout, materials and tolerances. Construction forms for columns, footings, walls, beams and stairs. | Prerequisites: (Registered apprentice status and a grade of C or better in SUN101) or permission of the Apprenticeship Coordinator. | | Occ | LEC 1.5 1.5 1.5 | S |
| SUN110AA | 2010 Spring | Forming (Loose) Fundamentals | | Cushion cone and cam-lock forming system. Various form and scaffold bracket systems. Forming teams, snap ties, aluma gang forms. Lumber versus Laminated Veneer Lumber (LVL) strongbacks. | Prerequisites: Registered apprentice status or permission of the Apprenticeship Coordinator. | | Occ | LEC 1.0 1.0 1.0 | S |
| SUN111 | 2002 Fall | Introduction to Light Equipment | | Use, operation and maintenance of light equipment used in the construction trades. Types, assemblies, operator | Prerequisites: None. | | Occ | LEC 1.0 1.0 1.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | qualifications, controls, safety precautions, operating procedures, and maintenance of aerial lifts, skid steer loaders, trenchers, generators, compressors, compactors and forklifts | | | | | |
| SUN112 | 2010 Spring | Framing Fundamentals | | Wall and ceiling layout procedures. Assembly and erection of exterior walls using common materials and methods. Masonry construction wall framing techniques and use of metal studs. | Prerequisites: Registered apprentice status or permission of the Apprenticeship Coordinator. | | Occ | LEC 1.0 1.0 1.0 | S |
| SUN201 | 2005 Spring | Reinforcing Concrete | | Use of reinforced concrete and reinforcing steel. Reinforced concrete in specific settings. Reinforcing steel; bar supports, bar lists, fabrication options, cutting and bending, tying, splicing and placing bars | Prerequisites: Registered apprentice status or permission of the Apprenticeship Coordinator. | | Occ | LEC 1.5 1.5 1.5 | S |
| SUN202 | 2010 Spring | Horizontal and Vertical Formwork | | Concrete forming and shoring systems and accessories, panel and gang wall patented wall forming systems. Column patented forms, flying form systems and culvert and roof support systems. Slipforming, paving and architectural forms. Application and construction methods for various types of forming and form hardware systems for walls, columns, and stairs as well as slip forms, climbing forms, and shaft forms. Overview of assembly, erection and stripping of gang forms. | Prerequisites: (Registered apprentice status and a grade of C or better in SUN201) or permission of the Apprenticeship Coordinator. | | Occ | LEC 2.0 2.0 2.0 | S |
| SUN207 | 2005 Spring | Metal Studs and Drywall | | Installation of metal framing members and gypsum dry wall. Gypsum ceiling products and installation procedures | Prerequisites: Registered apprentice status or permission of the Apprenticeship Coordinator. | | Occ | LEC 1.5 1.5 1.5 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| SUN208 | 2005 Spring | Construction Plans and Elevations | | Construction drawings, plans and elevations. Lines, symbols, dimensions and abbreviations. Specifications and site and plot plan development. Includes plan and elevation reading exercises. | Prerequisites: (Registered apprentice status and a grade of C or better in SUN105) or permission of the Apprenticeship Coordinator. | | Occ | LEC 1.5 1.5 1.5 | S |
| SUN298AA | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | Prerequisites: Permission of Program Director or Instructor. | | Occ | LAB 1.0 1.0 0.0 | Z |
| SUN298AB | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | Prerequisites: Permission of Program Director or Instructor. | | Occ | LAB 2.0 2.0 0.0 | Z |
| SUN298AC | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by | Prerequisites: Permission of Program Director or Instructor. | | Occ | LAB 3.0 3.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | | | | | |
| SUS100 | 2011 Summer I | Introduction to Sustainability | | Introduction to the basic concepts of sustainability. Includes challenges of land, ocean, and resource management as well as the built environment. Also covers connections between global, local and personal sustainability challenges and responses at each level. | Prerequisites: None. | Course Attribute(s): General Education Designation: Global Awareness - [G] | Acad | LEC 3.0 3.0 3.0 | S |
| SUS110 | 2016 Spring | Sustainable World | | Introduction to the field of sustainability and exploration of the interaction between human and natural global systems. Framework for analyzing and investigating the global challenges such as land use change, competition for water and other natural resources, and renewable energy concerns and crises. | Prerequisites: None. | Course Attribute(s): General Education Designation: Social and Behavioral Sciences - [SB] | Acad | LEC 3.0 3.0 3.0 | S |
| SUS230 | 2014 Fall | Practical Skills for Sustainability Problem Solving | | Introduction to professional skills in sustainability problem solving. Emphasis on four skill areas: teamwork basics, project management tools and professional behaviors, self-directed learning techniques, and stakeholder engagement. Also covers techniques for identification of challenges and conflict resolution within a sustainability project. | Prerequisites: None. | | Acad | LEC 1.0 1.0 1.0 | S |
| SUS231 | 2014 Fall | Careers in Sustainability | | Introduction to career pathways in sustainability. Exploration of career paths, | Prerequisites: None. | | Acad | LEC 1.0 1.0 1.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | development of interview skills, and resume creation covered in addition to articulation of personal interests and values related to careers in sustainability. Also includes an introduction to networking skills and job search assistance. | | | | | |
| SUS232 | 2017 Fall | Professional Skills in Sustainability Practice | | Introduction to professional skills in sustainability through interpersonal competence. Emphasis on teamwork, project management, stakeholder engagement, communication, and continuous learning. | Prerequisites: A grade of C or better in SUS110 and SSH111 and (ENG101 or ENG107). | | Acad | LEC 3.0 3.0 3.0 | S |
| SWU101AA | 2023 Fall | Self-Awareness for Paraprofessional Helpers | | Explores the paraprofessional helper's feelings and values, and encourages examination of one's own strengths, weaknesses and coping skills within the context of the helping relationship. | Prerequisites: None. | | Acad | LEC 1.0 1.0 1.0 | S |
| SWU101AB | 2023 Fall | Awareness of Others for Paraprofessional Helpers | | Applies the paraprofessional helper's insights about themselves within the context of knowledge about client populations, diversity, ethics, and beginning stages of assessment. | Prerequisites: A grade of C or better in SWU101AA. | | | LEC 1.0 1.0 1.0 | S |
| SWU101AC | 2023 Fall | Intervention Assessment for Paraprofessional Helpers | | Introduction for the paraprofessional helper to intervention techniques, beginning communication skills, community resources, and development of action plans. | Prerequisites: A grade of C or better in SWU101AB. | Acad | | LEC 1.0 1.0 1.0 | S |
| SWU130 | 2023 Fall | Addictions and Substance Use Disorders | | Sociological, psychological and physiological aspects of addictive behaviors and chemical abuse. Consideration of a variety of treatment programs offered in community agencies. | Prerequisites: None. | Acad | Acad | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| SWU171 | 2021 Spring | Introduction to Social Work | | Analysis of contemporary social welfare services and professional social work. | Prerequisites: None. | | Acad | LEC 3.0 3.0 3.0 | S |
| SWU181 | 2018 Fall | Economics: A Social Issues Perspective | | Introduction to economic principles through the lens of contemporary social issues for social work and related fields. | Prerequisites: None. | | Acad | LEC 3.0 3.0 3.0 | S |
| SWU182 | 2023 Fall | A Social Services Perspective of Government | | Government and the role of policy practice in advancing social and economic justice and effective social services within the southwest. | Prerequisites: None. | Course Attribute(s): General Education Designation: Social-Behavioral Sciences - [SB] | Acad | LEC 3.0 3.0 3.0 | S |
| SWU183 | 2023 Fall | Introductory Ethics: A Social Service Perspective | | Introductory exploration of ethics from a historical and multicultural perspective viewed through the lens of contemporary social issues. | Prerequisites: None. | Course Attribute(s): General Education Designation: Humanities, Arts and Design - [HU] | Acad | LEC 3.0 3.0 3.0 | S |
| SWU225 | 2023 Fall | Statistics for Social Research/Justice and Government | | Introductory course in descriptive and inferential statistics for social research. Designed to serve as preparation for interpreting and understanding research related to Justice and Government related agencies. | Prerequisites: A grade of C or better in MAT092 or completion of higher level mathematics course. | Course Attribute(s): General Education Designation: Computer/Statistics/Quantitative Applications - [CS] | Acad | LEC 3.0 3.0 3.0 | S |
| SWU250 | 2013 Fall | Mindfulness for Stress Management | | Introduction to the theory, research and practice behind mindfulness and stress management as it relates to quality of life issues and professional self-care. Focus on maintaining a healthy lifestyle and managing personal/professional stress by incorporating evidence based research on nutrition, mindfulness, communication, positive psychology, exercise, environmental factors contributing to wellness and disease; immune system support, activity management and developing practices that facilitate maintaining living in balance. | Prerequisites: None. | Course Attribute(s): General Education Designation: Social-Behavioral Sciences - [SB] | Acad | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| SWU258 | 2023 Fall | Victimology and Crisis, a Social Services Perspective | | A social work response to victimology, working with the criminal justice system, evidence-based techniques in crisis intervention, and the importance of a multicultural and global perspective. Includes a therapeutic approach to topics such as sexual assault, family violence, post-traumatic stress disorder, stress management, natural disasters, effective coping skills, appropriate community resources, and the responsiveness of the justice system. | Prerequisites: None. | | Acad | LEC 3.0 3.0 3.0 | S |
| SWU275AA | 2023 Fall | Case Report Writing I | | Documentation skills for human service helpers. Includes privacy and legal issues. | Prerequisites: None. | | Acad | LEC 1.0 1.0 1.0 | S |
| SWU282AA | 1993 Fall | Volunteerism for Social Work: A ServiceLearning Experience | | Service-learning field experience within private/public agencies, and citizen volunteer groups. | Prerequisites: Permission of Instructor. | SWU282AA may be repeated for a total of six (6) credit hours; may not repeat specific assignment for more than three (3) credit hours. Standard grading available according to procedures outlined in catalog. | Acad | LAB 1.0 1.0 0.0 | L |
| SWU282AB | 1993 Fall | Volunteerism for Social Work: A ServiceLearning Experience | | Service-learning field experience within private/public agencies, and citizen volunteer groups. | Prerequisites: Permission of Instructor. | SWU282AB may be repeated for a total of six (6) credit hours; may not repeat specific assignment for more than three (3) credit hours. Standard grading available according to procedures outlined in catalog. | Acad | LAB 2.0 2.0 0.0 | L |
| SWU282AC | 1993 Fall | Volunteerism for Social Work: A ServiceLearning Experience | | Service-learning field experience within private/public agencies, and citizen volunteer groups. | Prerequisites: Permission of Instructor. | SWU282AC may be repeated for a total of six (6) credit hours; may not repeat specific assignment for more than three (3) credit hours. Standard grading available according to procedures outlined in catalog. | Acad | LAB 3.0 3.0 0.0 | L |
| SWU285 | 2023 Fall | Social Services Seminar | | Special topics in social services with an emphasis on current issues not covered in other Social Work courses. | Prerequisites: None. | SWU285 may be repeated for a total of four 4 credit hours. | Acad | LEC 1.0 1.0 1.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| SWU291 | 2023 Fall | Social Service Delivery Systems | | Purposes, structures, and delivery systems of human service agencies. Includes 40 hours of volunteer experience in local human service agencies. | Prerequisites: A grade of C or better in SWU171, or permission of Department or Division or Corequisites: SWU171. | | Acad | LEC 3.0 3.0 3.0 | S |
| SWU295 | 2023 Fall | Effective Helping in a Diverse World | | Introduction to professional helper communication skills with respect to cross-cultural practice and diversity issues, in a social work setting. | Prerequisties: None. SWU171 suggested but not required. | Course Attribute(s): General Education Designation: Cultural Diversity [C] General Education Designation: Social-Behavioral Sciences [SB] | Acad | LEC 3.0 3.0 3.0 | S |
| SWU296WA | 2023 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor. | | Acad | LAB 1.0 5.0 0.0 | Z |
| SWU296WB | 2023 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest | | Acad | LAB 2.0 10.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | or with permission of the Instructor. | | | | |
| SWU296WC | 2023 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor. | | Acad | LAB 3.0 15.0 0.0 | Z |
| SWU296WD | 2023 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor. | | Acad | LAB 4.0 20.0 0.0 | Z |
| SWU298AA | 2023 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type | Prerequisites: Permission of Program Director or Instructor. | | Acad | LAB 1.0 1.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. | | | | | |
| SWU298AB | 2023 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. | Prerequisites: Permission of Program Director or Instructor. | | Acad | LAB 2.0 2.0 0.0 | Z |
| SWU298AC | 2023 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. | Prerequisites: Permission of Program Director or Instructor. | | Acad | LAB 3.0 3.0 0.0 | Z |
| TDR102 | 2006 Fall | Construction Soft Skills I: Workplace Skills | | First impressions, relationship building, and team work. Diversity in the work place. Individual and group activities. | Prerequisites: Registered apprentice status or permission of Apprenticeship Coordinator. | | Occ | LEC 1.0 1.0 1.0 | S |
| TDR104 | 2006 Fall | Construction Soft Skills II: Listening and Speaking | | Effective listening, speaking, reading and writing skills for the construction industry. Communication process: | Prerequisites: A grade of C or better in TDR102. | | Occ | LEC 1.0 1.0 1.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | channel, receiver and feedback. Communication issues, problems, and noise. Business and form writing for the construction industry. On-the-job site factors. Individual and group activities | | | | | |
| TDR106 | 2006 Fall | Construction Soft Skills III: Resolving Workplace Issues | | Stress recognition and management. Time management. Critical thinking and problem solving. Conflict prevention and resolution. Annoying behavior. Coping skills. Criticism. Sexual harassment. drug, alcohol, and substance abuse. Individual and group activities | Prerequisites: A grade of C or better in TDR104. | | Occ | LEC 1.0 1.0 1.0 | S |
| TDR122 | 2009 Spring | Basic Electrical Theory | | Introduction to electrical theory, direct current (DC) circuits, series, parallel, and series-parallel circuits, DC power sources, DC motors, DC generators | Prerequisites: Permission of Instructor. | | Occ | LEC 5.0 5.0 5.0 | A |
| TDR296WA | 2002 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor. | | Occ | LAB 1.0 5.0 0.0 | Z |
| TDR296WB | 2002 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average | | | LAB 2.0 10.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | objectives of the students. COMMON COMPETENCY COURSE | and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor. | | | | |
| TDR296WC | 2002 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor. | | Occ | LAB 3.0 15.0 0.0 | Z |
| TDR296WD | 2002 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to | Occ | | LAB 4.0 20.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | students major or career interest or with permission of Instructor. | | | | |
| TDR298AA | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | Prerequisites: Permission of Program Director or Instructor. | | Occ | LAB 1.0 1.0 0.0 | Z |
| TDR298AB | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | Prerequisites: Permission of Program Director or Instructor. | | Occ | LAB 2.0 2.0 0.0 | Z |
| TDR298AC | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of | Prerequisites: Permission of Program Director or Instructor. | | Occ | LAB 3.0 3.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | | | | | |
| TEC103 | 2007 Fall | Developing Your Fashion Business | | Creating and understanding a financial plan, developing operating and control systems, planning growth strategies and a business plan for the Fashion Entrepreneur. Emphasis on fashion merchandise and successful fashion business development | Prerequisites: None. | | Occ | LEC 2.0 2.0 2.0 | S |
| TEC105 | 2019 Fall | Cultural Aspects of Clothing | | Psychological, aesthetic, and economic factors applied to the systematic study of dress and adornment in relationship to world cultures and the global fashion industry. | Prerequisites: None. | Course Attribute(s): General Education Designation: Humanities, Arts and Design - [HU] General Education Designation: Social-Behavioral Sciences [SB] | Occ | LEC 3.0 3.0 3.0 | S |
| TEC106 | 2015 Summer | History of Fashion | | Consideration of historic factors influencing fashion and fashion change with special emphasis on historic costume. | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| TEC108 | 2023 Fall | Flat-Pattern Design | | Beginning flat-pattern design techniques. Introductory work with pattern accuracy, markings, style variations, seams, and garment features to create basic designs. | Prerequisites: A grade of C or better in TEC110 or permission of Instructor. | TEC108 may be repeated for a total of six (6) credit hours. | Occ | L+L 3.0 4.0 4.0 | T |
| TEC109 | 2017 Fall | Introduction to Fashion Merchandising | MKT109 | Explores the various levels and specialized segment of the fashion industry, the principles of fashion, the fundamentals of merchandising apparel, consumers' influence on demand and marketing activities. | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| TEC110 | 2020 Fall | Beginning Apparel Construction | | Basic apparel construction techniques. Use of commercial patterns and sewing machine in the construction of basic garments. | Prerequisites: None. | | Occ | L+L 3.0 5.0 5.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| TEC111 | 2020 Fall | Intermediate Apparel Construction | | Intermediate clothing construction techniques. Emphasis on fit and construction details of commercial patterns. | Prerequisites: A grade of C or better in TEC110 or permission of Instructor. | TEC111 may be repeated for a total of twelve (12) credit hours with Permission of Instructor. If student has no previous sewing experience, TEC110 should be taken prior to and not during this course. | Occ | L+L 3.0 5.0 5.0 | T |
| TEC112AQ | 2018 Fall | Pattern Alteration and Fit | | Structural features of patterns and altering patterns to achieve proper fit. Includes figure irregularities, pattern style variations, fashion, and individual figure problems. | Prerequisites: A grade of C or better in TEC111 or permission of Instructor. | TEC112AQ may be repeated for a total of six (6) credit hours with Instructor permission. | Occ | L+L 2.0 3.0 3.0 | T |
| TEC112AU | 2018 Fall | Sewing Clothing Accessories | | Construction of clothing accessories for personal or professional use. Includes overview of accessories, principles of design, selection of fabrics and trims, use of commercial patterns, creation of custom patterns, construction techniques, and evaluation of accessories. | Prerequisites: A grade of C or better in TEC111 or permission of Instructor. | TEC112AU may be repeated for a total of twelve (12) credit hours. | Occ | L+L 3.0 5.0 5.0 | T |
| TEC113 | 2018 Fall | Textiles: Dyeing | | Demonstrations and projects emphasizing skills and techniques in creating textile designs on fabric for fashion and interior design applications. Fabric dyeing techniques through hands-on practices such as tie dyeing, shibori dyeing and batik dyeing. | Prerequisites: None. | TEC113 may be repeated for a total of three (3) credits. | Occ | L+L 1.0 1.5 1.5 | T |
| TEC114 | 2018 Fall | Textiles: Block Printing/Silk Screening | | Block printing and silk screening techniques used to create designs on fabric for apparel and interiors. | Prerequisites: None. | TEC114 may be repeated for a total of three (3) credits. | Occ | L+L 1.0 2.0 2.0 | T |
| TEC115 | 2018 Fall | Textiles: Hand Painting | | Techniques used to hand paint designs on textiles for fashion and interior design. Techniques include water color and ombre, marbleizing, stenciling, stamping and various resist methods such as gutta and taping. Includes | Prerequisites: None. | TEC115 may be repeated for a total of three (3) credits. | Occ | L+L 1.0 1.5 1.5 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | color theory and design development. | | | | | |
| TEC116 | 2018 Fall | Textiles: Stitchery and Embellishment | | Materials and techniques used for stitchery and embellishment on textiles. Includes color schemes and design development. | Prerequisites: None. | TEC116 may be repeated for a total of three (3) credits. | Occ | L+L 1.0 1.5 1.5 | T |
| TEC120 | 2020 Fall | Specialty Apparel Construction | | Application of specialty fabrics in clothing construction. Emphasis on improved construction quality and garment fit. | Prerequisites: A grade of C or better in TEC111, or THP206, or permission of Instructor. | TEC120 may be repeated for a total of nine (9) credit hours with permission of Instructor. | Occ | L+L 3.0 5.0 5.0 | T |
| TEC121 | 2023 Fall | Creative Sewing Machine Use | | Use of the sewing machine for other than construction of garments or household items. Emphasis on decorative uses of the sewing machine on items made or purchased by the user. | Prerequisites: A grade of C or higher in TEC110 or permission of Instructor. | | Occ | L+L 3.0 3.0 3.0 | T |
| TEC122 | 2020 Fall | Sewing with Knits | | Skills and techniques used in the construction of garments made from knit fabrics. | Prerequisites: A grade of C or better in TEC111, or THP206, or permission of Instructor. | | Occ | L+L 3.0 5.0 5.0 | T |
| TEC124 | 2020 Fall | Advanced Apparel Construction | | Advanced garment construction techniques. Emphasis on lined jacket construction and working with patterned and specialty fabrics. | Prerequisites: A grade of C or better in TEC111, or THP206, or permission of Instructor. | TEC124 may be repeated for a total of twelve (12) credit hours with permission of Instructor. | Occ | L+L 3.0 5.0 5.0 | T |
| TEC125 | 2021 Fall | Fashion Design | | Overview of the fashion design industry. Includes terminology, fashion trends, elements and principles of design, sources of inspiration, fabric selection, sketching and costing a collection, an introduction to pattern making techniques, and global fashion centers' design and manufacturing specialties. | Prerequisites: None. | Course Attribute(s): General Education Designation: Humanities, Arts and Design - [HU] | Occ | LEC 3.0 3.0 3.0 | S |
| TEC126 | 2019 Fall | Sewing for the Home | INT126 | Provides students systemic skills and knowledge to plan and construct draperies, shades, pillows, bedding and other home furnishings through instructional projects. | Prerequisites: None. | Basic sewing skills are recommended. INT/TEC126 may be repeated for a total of nine (9) credit hours. | Occ | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Emphasizes techniques used in producing textile goods for the home. | | | | | |
| TEC128 | 2018 Fall | Home Upholstery | | Demonstration and application of knowledge and skills involved in upholstering stools, chairs, headboards, and other home furnishings. Includes measuring and cutting upholstery fabric and sewing outdoor/indoor cushions. | Prerequisites: None. | TEC128 may be repeated for credit. | Occ | L+L 3.0 5.0 5.0 | T |
| TEC129 | 2020 Fall | Sewing with a Serger | | Operation of a home serger. Use in constructing, finishing, and decorating garments and home decorations. Home serger required. | Prerequisites: A grade of C or better in TEC110 or permission of Instructor. | | Occ | L+L 3.0 5.0 5.0 | T |
| TEC130 | 2020 Fall | Alteration of Ready Made Garments | | Knowledge, skills, and techniques of altering ready-made garments for personal or professional use. Experience using a sewing machine and constructing garments assumed. | Prerequisites: A grade of C or better in TEC111 or permission of Instructor. | | Occ | L+L 3.0 4.0 4.0 | T |
| TEC133 | 2022 Spring | Fashion Illustration: Croquis | | Techniques for working with female and male croquis. Applications for illustrating clothing on croquis and preparing a fashion layout. | Prerequisites: None. | TEC133 may be repeated for a total of six (6) credit hours. | Occ | L+L 2.0 4.0 4.0 | T |
| TEC134 | 2018 Fall | Fashion Illustration I | | Proportions and techniques used in drawing fashion figures and clothing. Introduction of media and illustrative styles for portfolio design, trade sketches, and fashion advertisements. | Prerequisites: None. | TEC134 may be repeated for a total of nine (9) credits. | Occ | L+L 3.0 5.0 5.0 | T |
| TEC135 | 2018 Fall | Fashion Illustration II | | Intermediate-level study of proportion and techniques used in drawing fashion figures, clothing, and flats. Continued study of garments, fabric textures and patterns. Development of skills in presentation drawing and commencing fashion design portfolio illustrations. | Prerequisites: A grade of C or better in TEC134 or permission of Instructor. | TEC135 may be repeated for a total of nine (9) credits. | Occ | L+L 3.0 5.0 5.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| TEC136 | 2018 Fall | Fashion Illustration III | | Advanced-level study of proportions and techniques used in drawing fashion figures, clothing, and flats. Continued study of illustrative styles for garments, fabric textures and patterns. Further development of skills in portfolio presentation. | Prerequisites: A grade of C or better in TEC135 or permission of Instructor. | TEC136 may be repeated for a total of nine (9) credits. | Occ | L+L 3.0 5.0 5.0 | T |
| TEC138 | 2018 Fall | Fashion Illustration: Menswear | | Study of proportions and techniques used in drawing menswear fashion figures, clothing, accessories, and flats. Focus on the male physique and specific fitting variations of clothing. Introduction of traditional menswear fabrications and poses for tailored clothing and sportswear. | Prerequisites: A grade of C or better in TEC134 or permission of Instructor. | TEC138 may be repeated for a total of nine (9) credit hours. | Occ | L+L 3.0 5.0 5.0 | T |
| TEC139 | 2020 Fall | Fashion Illustration: Children's Wear | | Study of proportions and techniques used in drawing children's wear fashion figures, clothing, and flats from infants through teenagers. Introduction of body and feature characteristics unique to the various ages of growth for children. Includes emphasis on common clothing styles, fabrics, effects, and details. | Prerequisites: A grade of C or better in TEC134 or permission of Instructor. | | Occ | L+L 3.0 5.0 5.0 | T |
| TEC141 | 2018 Fall | Fashion Design: CAD | | Use of computer-assisted design (CAD) in the fashion design industry. Create and illustrate fashion designs using these applications. Color and design principles applied in creatingan apparel line and developing a portfolio | Prerequisites: None. | TEC141 may be repeated for a total of six (6) credits. | Occ | L+L 2.0 2.0 2.0 | T |
| TEC143 | 2022 Fall | Industrial Sewing I | | Introduction to industrial sewing machine usage with emphasis on techniques, applications, and stitching control. Basic methods used | Prerequisites: A grade of C or better in TEC111 or permission of Instructor. | TEC143 may be repeated for a total of six (6) credit hours. | Occ | L+L 2.0 3.0 3.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | in constructing, finishing, and decorating apparel. | | | | | |
| TEC144 | 2022 Fall | Industrial Sewing II | | Use of standard industrial sewing machines with emphasis on techniques, applications, speed, and stitching control. Expanded methods in intermediate and advanced construction, finishing, and decorating apparel. | Prerequisites: A grade of C or better in TEC143 or permission of Instructor. | TEC144 may be repeated for a total of six (6) credit hours. | Occ | L+L 2.0 3.0 3.0 | T |
| TEC146 | 2018 Fall | Manufacturing Sewing Methods I | | Introduction to skills and techniques of sewing for apparel manufacturing ready-made-garments. Focus on applying correct clothing construction methods required to achieve the right quality level for the apparel customer using the proper commercial design and materials. | Prerequisites: A grade of C or better in TEC144 or permission of Instructor. | TEC146 may be repeated for a total of six (6) credit hours. | Occ | L+L 2.0 3.0 3.0 | T |
| TEC147 | 2018 Fall | Manufacturing Sewing Methods II | | Advanced skills and techniques of sewing for apparel manufacturing ready-made-garments. Advanced application of correct clothing construction methods required to achieve the right quality level for the apparel customer using the proper commercial design and materials. | Prerequisites: A grade of C or better in TEC146 or permission of Instructor. | TEC147 may be repeated for a total of six (6) credit hours. | Occ | L+L 2.0 3.0 3.0 | T |
| TEC150 | 2019 Spring | Fashion Show Production | | Students will learn and experience real-time production techniques and skills of a fashion show. Includes but not limited to, budget planning, project management, marketing, staffing, d?cor, staging, and production. | Prerequisites: None. | TEC150 may be repeated for a total of six (6) credit hours. | Occ | L+L 3.0 4.0 4.0 | T |
| TEC151 | 2018 Fall | Display and Visual Merchandising | MKT151 | An examination of the principles of design including line, color, balance, and texture as they relate to the display of merchandise. | Prerequisites: None. | | Occ | L+L 3.0 4.0 4.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Participation in displays, field trips, and individual projects | | | | | |
| TEC161 | 2018 Fall | Digital Machine Embroidery Laboratory | | Use of the sewing machine and computer for development of decorative designs for garment and fabric design | Prerequisites: None. | TEC161 may be repeated for a total of six (6) credits. | Occ | LAB 1.0 2.0 2.0 | T |
| TEC162 | 2018 Fall | Product Development Laboratory | | Focus on current trends in fashion product development; methods and techniques to translate design ideas into a realistic production product | Prerequisites: A grade of C or better in TEC125 or permission of Instructor. | TEC162 may be repeated for a total of six (6) credits. | Occ | LAB 1.0 1.0 1.0 | T |
| TEC200 | 2005 Spring | Retail Buying | MKT200 | Examines management/buyer role in investment, pricing, planning, controlling sales and inventories Any BPC/CIS spreadsheet course recommended | Prerequisites: None. A grade of C or better in any BPC/CIS spreadsheet course recommended. | | | LEC 3.0 3.0 3.0 | S |
| TEC221 | 2019 Spring | Computer-Assisted Fashion Design | | The use of computer hardware and software in the fashion design industry. Create and illustrate fashion designs using computer hardware and software. Color and design principles applied in creating an apparel line and developing a portfolio. | Prerequisites: A grade of C or better in (TEC125 and TEC134) or permission of Instructor. | Occ | Occ | L+L 3.0 5.0 5.0 | T |
| TEC222 | 2018 Fall | Textiles | | Study of textile fibers, yarns, fabrication, color and finishes and their impact on product performance. Includes labeling laws, fiber manufacturing processes, technical textiles, fiber properties, care, end use, and global sustainability efforts. | Prerequisites: None. | | Occ | L+L 3.0 4.0 4.0 | T |
| TEC223 | 2018 Fall | Tailoring | | Principles of tailoring as applied in the construction of a coat or suit. Alteration of patterns and fitting techniques. | Prerequisites: A grade of C or better in TEC124 or permission of Instructor. | TEC223 may be repeated for a total of twelve (12) credit hours with permission of instructor. | Occ | L+L 3.0 6.0 6.0 | T |
| TEC224 | 2018 Fall | Pattern Drafting | | Draft patterns from measurements of dress forms and human figures. Development of slopers and garment patterns. Design and produce an original garment | Prerequisites: A grade of C or better in TEC111 or permission of Instructor. | TEC224 may be repeated for a total of six (6) credit hours. | Occ | L+L 2.0 3.0 3.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | using pattern drafting techniques. | | | | | |
| TEC225 | 2020 Fall | Pattern Design I | | Creation of pattern designs by flat pattern methods. Produce a variety of styles. Production of an original pattern design and garment. | Prerequisites: A grade of C or better in TEC111, or THP206, or permission of Instructor. | TEC225 may be repeated for a total of twelve (12) credits. | Occ | L+L 3.0 5.0 5.0 | T |
| TEC226 | 2020 Fall | Draping for Fashion Design | | Manipulation of fabrics on a dress form and/or live figure to create designs and patterns. Use of woven fabrics to create basic and intermediate designs. Introduction of knitwear draping. Drape and construct an original design. | Prerequisites: A grade of C or better in TEC111, or THP206, or permission of Instructor. | TEC226 may be repeated for a total of nine (9) credits. | Occ | L+L 3.0 5.0 5.0 | T |
| TEC227 | 2020 Fall | Couture Sewing | | Construction techniques used in couture sewing. Includes fabric selection, fabric preparation, hand sewing, garment shaping, edge finishes, embellishments, and closures. Emphasis on fitting and couture construction techniques used to construct skirts, pants, blouses, dresses, sleeves, pockets, jackets, coats, and evening wear. | Prerequisites: A grade of C or better in TEC111, or THP206, or permission of Instructor. | TEC227 may be repeated for a total of twelve (12) credit hours with permission of Instructor. | Occ | L+L 3.0 5.0 5.0 | T |
| TEC228 | 2018 Fall | Advanced Draping for Fashion Design | | Advanced draping techniques for fashion design. Includes draping jackets/coats, shorts/pants, dresses/gowns and other woven fabrics. Also includes draping swimwear/leotards and other garments in knit fabrics. Drape and construct an original design. | Prerequisites: A grade of C or better in TEC226 or permission of Instructor. | TEC228 may be repeated for a total of nine (9) credits. | Occ | L+L 3.0 5.0 5.0 | T |
| TEC229 | 2018 Fall | Advanced Serging | | Operation of a home serger in advanced application of construction and embellishment for garments and home decoration projects. Home serger required. | Prerequisites: A grade of C or better in TEC129 or permission of Instructor. | | Occ | L+L 3.0 5.0 5.0 | T |
| TEC230 | 2018 Fall | Pattern Design II | | Practical application in designing clothing/patterns | Prerequisites: A grade of C or better in | TEC230 may be repeated for a total of twelve (12) credits. | Occ | L+L 3.0 5.0 5.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | using flat pattern method. Principles of flat pattern and use of sloper reviewed. Includes creation of woven and knit original designs. | TEC225 or permission of Instructor. | | | | |
| TEC231 | 2018 Fall | Pattern Grading | | Grading patterns to change sizes. Includes grading terminology, grading methods, figure types, grading charts, types of grade, even and uneven grades, and grading basic and intermediate designs. | Prerequisites: A grade of C or better in TEC111 or permission of Instructor. | TEC231 may be repeated for a total of six (6) credit hours. | Occ | L+L 3.0 5.0 5.0 | T |
| TEC232 | 2018 Fall | Costume Construction | | Costume construction techniques applied to period reproduction, vintage, fantasy and anime; stage and dance costumes. Includes alteration of commercial patterns, drafting of original patterns, and fitting techniques. | Prerequisites: A grade of C or better in TEC111 and (TEC224 or TEC225 or TEC226 or permission of Instructor). | TEC232 may be repeated for a total of twelve (12) credit hours with permission of Instructor. | Occ | L+L 3.0 5.0 5.0 | T |
| TEC233 | 2018 Fall | Computer-Assisted Pattern Making | | Pattern making using the computer and various software programs. Includes measuring, block patterns, pattern development, production patterns, modifications for size and fit, and markers | Prerequisites: A grade of C or better in TEC225 or permission of Instructor. | TEC233 may be repeated for a total of twelve (12) credit hours with permission of Instructor. | Occ | L+L 3.0 5.0 5.0 | T |
| TEC234 | 2019 Fall | Vintage Fashion Design | | Research of 20th-century fashions from the 1920s through the 1990s influencing vintage garment styles. Analysis of vintage era and revival trends. Development and construction of an original vintage garment/ensemble including design, fabric selection, and commercial pattern use with flat-patternmaking and/or draping variations. | Prerequisites: A grade of C or better in (TEC225 or TEC226) or permission of Instructor. | TEC234 may be repeated for a total of twelve (12) credit hours. | Occ | L+L 3.0 5.0 5.0 | T |
| TEC235 | 2018 Fall | Custom Tailored Pants | | Designed for the home sewing enthusiast or dressmaker who desires a perfectly fitted pant pattern. Pattern adjustments; | Prerequisites: A grade of C or better in TEC111 or equivalent. | | Occ | L+L 2.0 3.0 3.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | selecting proper size; fitting procedures for a personalized pant. Fabric draft of the basic pant to be fitted on each student | | | | | |
| TEC236 | 2018 Fall | Portfolio Development | | This course is designed to assist students in the preparation and presentation of an original professional portfolio. Students will design, produce, and present artistic sketches and illustrations of fashion figures wearing designs, flats for garment designs, and fabric swatches/samples selected for designs. Including but not limited to using computer-assisted design software, presentation boards, and other required components in the field of portfolio development. | Prerequisites: A grade of C or better in TEC134 and permission of Department or Division. TEC221 is recommended. | TEC236 may be repeated for a total of three (3) credits. | Occ | LAB 1.0 3.0 0.0 | C |
| TEC237 | 2021 Fall | Intermediate Computer-Assisted Fashion Design | | Intermediate-level study in the use of computer hardware and software in the fashion design industry. Draw fashion figures, create textile designs, develop and illustrate an original portfolio collection. | Prerequisites: A grade of C or better in (TEC134 and TEC221) or permission of Instructor. | | Occ | L+L 3.0 5.0 5.0 | T |
| TEC238 | 2019 Fall | Industry Patternmaking Standards | | Study of patternmaking techniques for industry. Specifications for production patterns, labeling methods, and direction cards. | Prerequisites: A grade of C or better in TEC225 or permission of Instructor. | TEC238 may be repeated for a total of three (3) credit hours. | Occ | L+L 1.0 2.0 2.0 | T |
| TEC240 | 2018 Fall | Apparel Production Management | | Overview of apparel production management for the global marketplace examining component details of the technical package, tech-pack, which include specifications and costing in the most time-efficient manner. | Prerequisites: None. | TEC240 may be repeated for a total of six (6) credit hours. | Occ | L+L 2.0 3.0 3.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| TEC241 | 2021 Fall | Advanced Computer-Assisted Fashion Design | | Advanced techniques and use of computer hardware and software in the fashion design industry. Create and illustrate fashion designs using multiple computer applications. Create advanced textile surface pattern design using color and design principles on the computer. Manipulate CAD pattern design for original patterns, grading, and markers. Create storyboards for product development and personal portfolio. | Prerequisites: A grade of C or better in TEC124 and TEC237. | Occ | | L+L 3.0 5.0 5.0 | T |
| TEC244 | 2018 Fall | Industrial Sewing III | | Mastery study of industrial sewing machine usage for straight-stitch, zigzag, over-lock, cover stitch and blind-hem machines. Use in detailed or complex constructing, finishing, and decorating apparel and home decor. | Prerequisites: A grade of C or better in TEC144 or permission of Instructor. | TEC244 may be repeated for a total of six (6) credit hours. | Occ | L+L 2.0 3.0 3.0 | T |
| TEC245 | 2020 Fall | Wardrobe Strategies | | Methods of clothing selection, coordination, evaluation, and planning to meet men's and women's wardrobe needs. | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| TEC247 | 2018 Fall | Manufacturing Sewing Methods III | | Mastery knowledge, skills, and techniques of sewing for apparel manufacturing ready-made-garments. Mastery level application of correct clothing construction methods required to achieve the right quality level for the apparel customer using the proper commercial design and materials. | Prerequisites: A grade of C or better in TEC147 or permission of Instructor. | TEC247 may be repeated for a total of six (6) credit hours. | Occ | L+L 2.0 3.0 3.0 | T |
| TEC250 | 2005 Spring | Apparel Quality Analysis | | Quality analysis of construction components that affect the appearance, function, and cost of ready-to-wear apparel | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| TEC255 | 2007 Fall | Fashion Retail Merchandising | | Surveys the structure and operation of fashion retail organizations. Emphasizes | Prerequisites: A grade of C or better in MKT/TEC109. | | Occ | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | the global nature of fashion merchandising and techniques of merchandising for the fashion merchandising major. | | | | | |
| TEC260 | 2007 Fall | Fashion Sales Management | | Emphasizes the fashion aspects of sales, and the application and management of a sales force for the fashion industry. | Prerequisites: A grade of C or better in MKT/TEC109. | | Occ | LEC 3.0 3.0 3.0 | S |
| TEC270 | 2020 Fall | Design Studio | | Design and production of original garments for a line/collection. Includes design inspirations, sketches/illustrations, fabric/materials selection, pattern development, construction and fit. | Prerequisites: A grade of C or better in (TEC225 or TEC226) or permission of Instructor. | TEC270 may be repeated for a total of twelve (12) credit hours. | Occ | LAB 3.0 4.0 4.0 | T |
| TEC271AA | 2017 Fall | Fashion Design Internship | | Work experience in fashion design business or industry. Work hours are coordinated for a minimum of 80 hours per semester. Supervision and evaluation by internship coordinator. | Prerequisites: Permission of Department or Division. | TEC271AA may be repeated for a total of three (3) credit hours. | Occ | LAB 1.0 5.0 0.0 | C |
| TEC271AC | 1997 Fall | Fashion Design Internship | | Work experience in fashion design business or industry. Fifteen hours of work weekly. Supervision and evaluation by an internship coordinator | Prerequisites: Permission of Department or Division. | | | LAB 3.0 15.0 0.0 | C |
| TEC272AA | 2019 Spring | Retail Merchandising Internship | | Retail Merchandising work experience in a Fashion Retail business or industry. Supervision and evaluation by an internship coordinator. Eighty hours of designated work, per credit per semester. | Prerequisites: Completion of at least twelve (12) college credits, minimum 2.6 grade point average, and be able to obtain a position related to student's academic or career goals (student's present job may qualify); or permission of Instructor. | Occ | Occ | LAB 1.0 1.0 0.0 | C |
| TEC272AC | 2019 Spring | Retail Merchandising Internship | | Retail Merchandising work experience in a Fashion Retail business or industry. Supervision and evaluation by an internship coordinator. | Prerequisites: Completion of at least twelve (12) college credits, minimum 2.6 grade point average, | | | LAB 3.0 3.0 0.0 | C |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Eighty hours of designated work, per credit per semester. | and be able to obtain a position related to student's academic or career goals (student's present job may qualify); or permission of Instructor. | | | | |
| TEC274AA | 2018 Spring | Fashion Merchandising Study Tour | | A tour of the fashion merchandising industry outside the metropolitan Phoenix area. Includes a variety of experiences and activities to enhance awareness of this multifaceted career | Prerequisites: Permission of Department or Division. | | | LAB 1.0 5.0 1.0 | F |
| TEC274AB | 2018 Spring | Fashion Merchandising Study tour | | A tour of the fashion merchandising industry outside the metropolitan Phoenix area. Includes a variety of experiences and activities to enhance awareness of this multifaceted career. | Prerequisites: Permission of Department or Division. | Occ | | LAB 2.0 10.0 2.0 | F |
| TEC274AC | 2001 Fall | Fashion Merchandising Study Tour | MKT274AC | A tour of the fashion merchandising industry outside the metropolitan Phoenix area. Includes a variety of experiences and activities to enhance awareness of this multifaceted career | Prerequisites: Permission of Department or Division. | Occ | | LAB 3.0 15.0 3.0 | F |
| TEC275AA | 2019 Spring | Image Consultant Internship | | Image Consultant work experience in a Fashion Retail business or industry. Supervision and evaluation by an internship coordinator. Eighty hours of designated work, per credit per semester. | Prerequisites: Completion of at least twelve (12) college credits, minimum 2.6 grade point average, and be able to obtain a position related to student's academic or career goals (student's present job may qualify); or permission of Instructor. | Occ | Occ | LAB 1.0 1.0 0.0 | C |
| TEC275AC | 2019 Spring | Image Consultant Internship | | Image Consultant work experience in a Fashion Retail business or industry. | Prerequisites: Completion of at least twelve (12) college | | | LAB 3.0 3.0 0.0 | C |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Supervision and evaluation by an internship coordinator. Eighty hours of designated work, per credit per semester. | credits, minimum 2.6 grade point average, and be able to obtain a position related to student's academic or career goals (student's present job may qualify); or permission of Instructor. | | | | |
| TEC277AA | 2019 Spring | Alteration Internship | | Alteration work experience in a business or industry. Supervision and evaluation by an internship coordinator. Eighty hours of designated work, per credit per semester. | Prerequisites: Completion of at least twelve (12) college credits, minimum 2.6 grade point average, and be able to obtain a position related to student's academic or career goals (student's present job may qualify); or permission of Instructor. | | | LAB 1.0 1.0 0.0 | C |
| TEC277AC | 2019 Spring | Alteration Internship | | Alteration work experience in a business or industry. Supervision and evaluation by an internship coordinator. Eighty hours of designated work, per credit per semester. | Prerequisites: Completion of at least twelve (12) college credits, minimum 2.6 grade point average, and be able to obtain a position related to student's academic or career goals (student's present job may qualify); or permission of Instructor. | Occ | | LAB 3.0 3.0 0.0 | C |
| TEC278AA | 2019 Spring | Costume Design and Production Internship | | Costume Design and Production work experience in a business or industry. Supervision and evaluation by an internship coordinator. Eighty hours of designated work, per credit per semester. | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of Instructor | Occ | | LAB 1.0 1.0 0.0 | C |



Occ

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| TEC278AC | 2019 Spring | Costume Design and Production Internship | | Costume Design and Production work experience in a business or industry. Supervision and evaluation by an internship coordinator. Eighty hours of designated work, per credit per semester. | Prerequisites: Completion of at least twelve (12) college credits, minimum 2.6 grade point average, and be able to obtain a position related to student's academic or career goals (student's present job may qualify); or permission of Instructor. | | Occ | LAB 3.0 3.0 0.0 | C |
| TEC282AA | 2015 Summer | Service-Learning in Fashion Merchandising and Design | | Unpaid Service-Learning (SL) experience, completed with approved community partner. | Prerequisites: Permission of Instructor. | TEC282AA may be repeated for a total of six (6) TEC282AA credit hours. Standard grading available according to procedures outlined in catalog. | Occ | LAB 1.0 1.0 0.0 | L |
| TEC282AB | 2015 Summer | Service-Learning Experience in Fashion Merchandising and Design | | Unpaid Service-Learning (SL) experience, completed with approved community partner. | Prerequisites: Permission of Instructor. | TEC282AB may be repeated for a total of six (6) TEC282AB credit hours. Standard grading available according to procedures outlined in catalog. | Occ | LAB 2.0 2.0 0.0 | L |
| TEC282AC | 2015 Summer | Service-Learning Experience in Fashion Merchandising and Design | | Unpaid Service-Learning (SL) experience, completed with approved community partner. | Prerequisites: Permission of Instructor. | TEC282AC may be repeated for a total of six (6) TEC282AC credit hours. Standard grading available according to procedures outlined in catalog. | Occ | LAB 3.0 3.0 0.0 | L |
| TEC296WA | 2002 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor. | | Occ | LAB 1.0 5.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| TEC296WB | 2002 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor. | | Occ | LAB 2.0 10.0 0.0 | Z |
| TEC296WC | 2002 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor. | | Occ | LAB 3.0 15.0 0.0 | Z |
| TEC296WD | 2002 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify | | Occ | LAB 4.0 20.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor. | | | | |
| TEC298AA | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | Prerequisites: Permission of Program Director or Instructor. | | Occ | LAB 1.0 1.0 0.0 | Z |
| TEC298AB | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | Prerequisites: Permission of Program Director or Instructor. | | Occ | LAB 2.0 2.0 0.0 | Z |
| TEC298AC | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by | Prerequisites: Permission of Program Director or Instructor. | | Occ | LAB 3.0 3.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | | | | | |
| THE111 | 2020 Fall | Introduction to Theatre | | A survey of theatre, including basic elements and principles of production, styles, and/or historical perspectives of theatre, dramatic literature, and criticism | Prerequisites: None. | General Education Designation: Humanities, Arts and Design - [HU] Arizona Shared Unique Number SUN# THE1100 | Acad | LEC 3.0 3.0 3.0 | S |
| THE220 | 2011 Fall | Modern Drama | | Analysis of dramatic literature studied within political, historical, and cultural contexts and examined from the perspective of the playwright's structure and style. | Prerequisites: A grade of C or better in ENG101 or ENG107 or equivalent. | Course Attribute(s): General Education Designation: Humanities, Arts and Design - [HU] General Education Designation: Literacy and Critical Inquiry - [L] Arizona Shared Unique Number SUN#: THE 2220 | Acad | LEC 3.0 3.0 3.0 | S |
| THE260 | 2021 Fall | Film Analysis | | Understanding and enjoyment of film and its correlation to literature, art, music, and other disciplines | Prerequisites: None. | | Acad | LEC 3.0 3.0 3.0 | S |
| THE274AA | 2002 Summer I | Theatre Study Tour | | A tour that focuses on theatre production outside of the metropolitan Phoenix area. Includes a variety of experiences and activities to enhance knowledge about theatre production | Prerequisites: Permission of Department or Division. | | | LAB 1.0 5.0 1.0 | F |
| THE274AB | 2002 Summer I | Theatre Study Tour | | A tour that focuses on theatre production outside of the metropolitan Phoenix area. Includes a variety of experiences and activities to enhance knowledge about theatre production | Prerequisites: Permission of Department or Division. | Acad | | LAB 2.0 10.0 2.0 | F |
| THE274AC | 2002 Summer I | Theatre Study Tour | | A tour that focuses on theatre production outside of the metropolitan Phoenix area. Includes a variety of | Prerequisites: Permission of Department or Division. | | | LAB 3.0 15.0 3.0 | F |



Acad

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | experiences and activities to enhance knowledge about theatre production | | | | | |
| THE282AA | 2014 Summer | Service-Learning Experience in Theatre | | Unpaid Service-Learning (SL) experience, completed with approved community partner. | Prerequisites: Permission of Instructor. | THE282AA may be repeated for a total of six (6) credit hours. Standard grading available according to procedures outlined in catalog. | Acad | LAB 1.0 1.0 0.0 | L |
| THE282AB | 2014 Summer | Service-Learning Experience in Theatre | | Unpaid Service-Learning (SL) experience, completed with approved community partner. | Prerequisites: Permission of Instructor. | THE282AB may be repeated for a total of six (6) credit hours. Standard grading available according to procedures outlined in catalog. | Acad | LAB 2.0 2.0 0.0 | L |
| THE282AC | 2014 Summer | Service-Learning Experience in Theatre | | Unpaid Service-Learning (SL) experience, completed with approved community partner. | Prerequisites: Permission of Instructor. | THE282AC may be repeated for a total of six (6) credit hours. Standard grading available according to procedures outlined in catalog. | Acad | LAB 3.0 3.0 0.0 | L |
| THE298AA | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | Prerequisites: Permission of Program Director or Instructor. | | Acad | LAB 1.0 1.0 0.0 | Z |
| THE298AB | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and | Prerequisites: Permission of Program Director or Instructor. | | Acad | LAB 2.0 2.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | | | | | |
| THE298AC | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | Prerequisites: Permission of Program Director or Instructor. | | Acad | LAB 3.0 3.0 0.0 | Z |
| THF115 | 2018 Fall | Makeup for Stage and Screen | | Purposes, materials, and techniques of makeup for stage and screen. | Prerequisites: None. | | Acad | L+L 3.0 4.0 4.0 | T |
| THF120AA | 2018 Fall | Audition Techniques for Stage and Screen: Prepared Monologue | | Practice in the techniques of auditioning for stage and screen. Identifies and illustrates techniques of the prepared monologue audition. | Prerequisites: None. | | Acad | L+L 1.0 2.0 2.0 | T |
| THF120AB | 2018 Fall | Audition Techniques for Stage and Screen: Cold Readings | | Practice in the techniques of auditioning for stage and screen. Identifies and illustrates techniques of the cold reading audition. | Prerequisites: None. | | Acad | L+L 1.0 2.0 2.0 | T |
| THF130 | 2018 Fall | Combat for Stage and Screen | | Fundamental techniques and terminology of staged combat with and without weapons. Analysis and performance of safely choreographed violence that tells a story for stage and screen. | Prerequisites: None. | THF130 may be repeated for a total of twelve (12) credit hours. | Acad | L+L 3.0 4.0 4.0 | T |
| THF205 | 2014 Fall | Introduction to Cinema | HUM205 | Survey of the history and development of the art of motion pictures, including criticism of aesthetic and technical elements. | Prerequisites: None. | Course Attribute(s): General Education Designation: Humanities, Arts and Design - [HU] | Acad | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| THF206 | 2017 Spring | Introduction to Television Arts | HUM206 | History and development of electronic media and its impact on popular arts. | Prerequisites: None. | | Acad | LEC 3.0 3.0 3.0 | S |
| THF209 | 2018 Fall | Acting for the Camera | | Special technical aspects of acting before a camera. | Prerequisites: A grade of C or better in THP112 or permission of Instructor. | | Acad | L+L 3.0 4.0 4.0 | T |
| THF210 | 2014 Fall | Contemporary Cinema | HUM210 | A study of contemporary films, directors and critics with emphasis on evaluating film as an art form. | Prerequisites: None. | Course Attribute(s): General Education Designation: Humanities, Arts and Design - [HU] | Acad | LEC 3.0 3.0 3.0 | S |
| THF219 | 2018 Fall | Advanced Acting for the Camera | | Focuses on special technical aspects of advanced acting before a camera. | Prerequisites: A grade of C or better in THF209 or permission of Instructor. | | Acad | L+L 3.0 4.0 4.0 | T |
| THO118 | 2023 Fall | Playwriting | | Practice and study of theories and techniques of writing for the stage; creating characters, dialogue, and plot for monodramas, scenes, and plays | Prerequisites: None. | | Occ | L+L 3.0 3.0 3.0 | T |
| THO130AA | 2023 Fall | Specialized Stage Combat: Unarmed | | Teaches fundamental techniques and terminology of unarmed staged combat as required for professional certification by the Society of American Fight Directors (SAFD). Includes the analysis and performance of safely choreographed violence that tells a story for stage and screen. Prepares students for the SAFD skills proficiency test in unarmed stage combat. | Prerequisites: None. | THO130AA will be taught by a Society of American Fight Directors certified teacher, Fight Director, or Fight Master. | Occ | L+L 1.5 2.0 2.0 | T |
| THO130AB | 2023 Fall | Specialized Stage Combat: Broadsword | | Teaches fundamental techniques and terminology of staged combat utilizing the broadsword as required for professional certification by the Society of American Fight Directors (SAFD). Includes the analysis and performance of safely choreographed violence that tells a story for stage and screen. Prepares students for the SAFD skills proficiency | Prerequisites: None. | THO130AB will be taught by a Society of American Fight Directors certified teacher, Fight Director, or Fight Master. | Occ | L+L 1.5 2.0 2.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | test in the use of the broadsword in stage combat. | | | | | |
| THO130AC | 2023 Fall | Specialized Stage Combat: Rapier and Dagger | | Teaches fundamental techniques and terminology of staged combat utilizing the rapier and dagger as required for professional certification by the Society of American Fight Directors (SAFD). Includes the analysis and performance of safely choreographed violence that tells a story for stage and screen. Prepares students for the SAFD skills proficiency test in the use of the rapier and dagger in stage combat. | Prerequisites: None. | THO130AC will be taught by a Society of American Fight Directors (SAFD) certified teacher, Fight Director, or Fight Master. | Occ | L+L 1.5 2.0 2.0 | T |
| THO130AD | 2023 Fall | Specialized Stage Combat: Single Sword | | Teaches fundamental techniques and terminology of staged combat utilizing the single sword as required for professional certification by the Society of American Fight Directors (SAFD). Includes the analysis and performance of safely choreographed violence that tells a story for stage and screen. Prepares students for the SAFD skills proficiency test in the use of the single sword in stage combat. | Prerequisites: None. | THO130AD will be taught by a Society of American Fight Directors certified teacher, Fight Director, or Fight Master. | Occ | L+L 1.5 2.0 2.0 | T |
| THO130AE | 2023 Fall | Specialized Stage Combat: Small Sword | | Teaches fundamental techniques and terminology of staged combat utilizing the small sword as required for professional certification by the Society of American Fight Directors (SAFD). Includes the analysis and performance of safely choreographed violence that tells a story for stage and screen. Prepares students for the SAFD skills proficiency test in the use of the small sword in stage combat. | Prerequisites: None. | THO130AE will be taught by a Society of American Fight Directors certified teacher, Fight Director, or Fight Master. | Occ | L+L 1.5 2.0 2.0 | T |
| THO130AF | 2023 Fall | Specialized Stage Combat: Sword and Shield/Buckler | | Teaches fundamental techniques and terminology of | Prerequisites: None. | THO130AF will be taught by a Society of American Fight | Occ | L+L 1.5 2.0 2.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | staged combat utilizing the sword and shield/buckler as required for professional certification by the Society of American Fight Directors (SAFD). Includes the analysis and performance of safely choreographed violence that tells a story for stage and screen. Prepares students for the SAFD skills proficiency test in the use of the sword and shield/buckler in stage combat. | | Directors certified teacher, Fight Director, or Fight Master. | | | |
| THO130AG | 2023 Fall | Specialized Stage Combat: Quarterstaff | | Teaches fundamental techniques and terminology of staged combat utilizing the quarterstaff as required for professional certification by the Society of American Fight Directors (SAFD). Includes the analysis and performance of safely choreographed violence that tells a story for stage and screen. Prepares students for the SAFD skills proficiency test in the use of the quarterstaff in stage combat. | Prerequisites: None. | THO130AG will be taught by a Society of American Fight Directors certified teacher, Fight Director, or Fight Master. | Occ | L+L 1.5 2.0 2.0 | T |
| THO130AH | 2023 Fall | Specialized Stage Combat: Knife | | Teaches fundamental techniques and terminology of staged combat utilizing the knife as required for professional certification by the Society of American Fight Directors (SAFD). Includes the analysis and performance of safely choreographed violence that tells a story for stage and screen. Prepares students for the SAFD skills proficiency test in the use of the knife in stage combat. | Prerequisites: None. | THO130AH will be taught by a Society of American Fight Directors certified teacher, Fight Director, or Fight Master. | Occ | L+L 1.5 2.0 2.0 | T |
| THO135AA | 2023 Fall | Stage Combat Recertification: Unarmed | | Course to provide Society of American Fight Directors (SAFD) recertification in unarmed stage combat. | Prerequisites: Certification in specified weapon by SAFD or | THO135AA may be repeated for credit. | Occ | L+L 0.5 1.0 1.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Course taught by SAFD certified teacher, Fight Director, or Fight Master. | permission of Program Director. | | | | |
| THO135AB | 2023 Fall | Stage Combat Recertification: Broadsword | | Course to provide Society of American Fight Directors (SAFD) recertification in using the broadsword in stage combat. Course taught by SAFD certified teacher, Fight Director, or Fight Master. | Prerequisites: Certification in specified weapon by SAFD or permission of Program Director. | THO135AB may be repeated for credit. | Occ | L+L 0.5 1.0 1.0 | T |
| THO135AC | 2023 Fall | Stage Combat Recertification: Rapier and Dagger | | Course to provide Society of American Fight Directors (SAFD) recertification in using the rapier and dagger in stage combat. Course taught by SAFD certified teacher, Fight Director, or Fight Master. | Prerequisites: Certification in specified weapon by SAFD or permission of Program Director. | THO135AC may be repeated for credit. | Occ | L+L 0.5 1.0 1.0 | T |
| THO135AD | 2023 Fall | Stage Combat Recertification: Single Sword | | Course to provide Society of American Fight Directors (SAFD) recertification in using the single sword in stage combat. Course taught by SAFD certified teacher, Fight Director, or Fight Master. | Prerequisites: Certification in specified weapon by SAFD or permission of Program Director. | THO135AD may be repeated for credit. | Occ | L+L 0.5 1.0 1.0 | T |
| THO135AE | 2023 Fall | Stage Combat Recertification: Small Sword | | Course to provide Society of American Fight Directors (SAFD) recertification in using the small sword in stage combat. Course taught by SAFD certified teacher, Fight Director, or Fight Master. | Prerequisites: Certification in specified weapon by SAFD or permission of Program Director. | THO135AE may be repeated for credit. | Occ | L+L 0.5 1.0 1.0 | T |
| THO135AF | 2023 Fall | Stage Combat Recertification: Sword and Shield/Buckler | | Course to provide Society of American Fight Directors (SAFD) recertification in using the sword and shield/buckler in stage combat. Course taught by SAFD certified teacher, Fight Director, or Fight Master. | Prerequisites: Certification in specified weapon by SAFD or permission of Program Director. | THO135AF may be repeated for credit. | Occ | L+L 0.5 1.0 1.0 | T |
| THO135AG | 2023 Fall | Stage Combat Recertification: Quarterstaff | | Course to provide Society of American Fight Directors (SAFD) recertification in using the quarterstaff in stage combat. Course taught by SAFD certified teacher, Fight Director, or Fight Master. | Prerequisites: Certification in specified weapon by SAFD or permission of Program Director. | THO135AG may be repeated for credit. | Occ | L+L 0.5 1.0 1.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| THO135AH | 2023 Fall | Stage Combat Recertification: Knife | | Course to provide Society of American Fight Directors (SAFD) recertification in using the knife in stage combat. Course taught by SAFD certified teacher, Fight Director, or Fight Master. | Prerequisites: Certification in specified weapon by SAFD or permission of Program Director. | THO135AH may be repeated for credit. | Occ | L+L 0.5 1.0 1.0 | T |
| THO202AA | 2023 Fall | Theatre Production I Scene Shop | | The objective of this course is to provide hands-on experience in the creation of a theatrical production. This course is tailored around the work done in a Theatre Scenic Shop. Structured to provide the student with an atmosphere of professional expertise and guidance. Professional-type facilities and equipment are made available for student use. | Prerequisites: None. | THO202AA may be repeated for a total of four (4) credit hours. | Occ | LAB 1.0 2.0 0.0 | C |
| THO202AB | 2023 Fall | Theatre Production I Electrics | | The objective of this course is to provide hands-on experience in the creation of a theatrical production. This course is tailored around the work done in a Theatre Electric Shop. Structured to provide the student with an atmosphere of professional expertise and guidance. Professional-type facilities and equipment are made available for student use. | Prerequisites: None. | THO202AB may be repeated for a total of four (4) credit hours. | Occ | LAB 1.0 2.0 0.0 | C |
| THO202AC | 2023 Fall | Theatre Production I Costume Shop | | The objective of this course is to provide hands-on experience in the creation of a theatrical production. This course is tailored around the work done in a Theatre Costume Shop. Structured to provide the student with an atmosphere of professional expertise and guidance. Professional-type facilities and equipment are made available for student use. | Prerequisites: None. | THO202AC may be repeated for a total of four (4) credit hours. | Occ | LAB 1.0 2.0 0.0 | C |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| THO202AD | 2023 Fall | Theatre Production Advanced Projects | | The objective of this course is to provide hands-on experience in the creation of a theatrical production. This course is tailored around the work done in a leadership role on a theatrical production. Structured to provide the student with an atmosphere of professional expertise and guidance. Professional-type facilities and equipment are made available for student use. | Prerequisites: None. | THO202AD may be repeated for a total of four (4) credit hours. | Occ | LAB 1.0 2.0 0.0 | C |
| THO203 | 2023 Fall | Technical Theatre Production | | Designed to give college credit to the technical production crews of college theatre productions. | Prerequisites: None. | THO203 may be repeated for up to a maximum of nine (9) credits. | Occ | LAB 3.0 6.0 6.0 | T |
| THO208 | 2023 Fall | Costume Play Solo Performance Practicum | | Introduction to Costume Play (Cosplay) skills for the creation of a solo based performance through practical experience. Focus on the origins of Cosplay and use of tools for prop and costume development, design and application of make-up, safety practices, character development and performance, and growing a social presence for promotion. | Prerequisites: None. | | Occ | L+L 3.0 4.0 4.0 | T |
| THO209 | 2023 Fall | Costume Play Group Performance Practicum | | Introduction to Costume Play (Cosplay) skills for the creation of a group based performance through practical experience. Focus on the development and collaborative performance of Cosplay characters within a canon/shared world. Use of tools for prop and costume development, design and application of make-up, safety practices, and growing a social presence for promotion. | Prerequisites: None. | | Occ | L+L 3.0 4.0 4.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| THO215 | 2023 Fall | Advanced Makeup Techniques for Stage and Screen | | Advanced character analysis and makeup design for stage and screen. Technical application of makeup for stage and screen. | Prerequisites: A grade of C or better in THF115. | | Occ | L+L 3.0 4.0 4.0 | T |
| THO216 | 2023 Fall | Wig and Hair Production for Theatre and Film | | Introduction to wig technology, including the use of tools and techniques for making, ventilating, measuring, and styling period wigs. | Prerequisites: None. | | Occ | L+L 3.0 4.0 4.0 | T |
| THO218 | 2023 Fall | Beginning Stage Lighting | | Basic theories and methods of stage lighting for all production types. Emphasis on technical/theoretical facts, artistic/design concept development, and teamwork structure of theatre. Examines stage lighting optics, instrument selection and application, color theory, circuiting and control systems, and basic design. | Prerequisites: A grade of C or better in THP213 or permission of Instructor. | | Occ | L+L 3.0 4.0 4.0 | T |
| THO219 | 2023 Fall | Introduction to Puppetry | | Use of different types of puppets in a variety of performance settings. Practical experience with diverse audiences. | Prerequisites: None. | | Occ | L+L 3.0 4.0 4.0 | T |
| THO225 | 2023 Fall | Visual Script Analysis | | Theory and practice in analysis of dramatic literature for the technician and designer. Emphasis on techniques of script analysis for visual information. | Prerequisites: None. | | Occ | LEC 2.0 2.0 2.0 | S |
| THO226 | 2023 Fall | Theatrical Design: Costuming | | Basic techniques involved in researching and designing costumes for the stage. | Prerequisites: None. | | Occ | L+L 3.0 4.0 4.0 | T |
| THO235 | 2023 Fall | Principles of Stage Combat Safety/Fight Captain | | Evaluate stage combat performances for safety in order to identify issues that might require intervention, communication, and revision. Course to prepare students for work as a fight captain in a stage or film environment. Provides opportunity to practice weapon maintenance | Prerequisites: A grade of C or better in at least four (4) stage combat courses (THO130AA, THO130AB, THO130AC, THO130AD, THO130AE, THO130AF, THO130AG, or | | | L+L 4.0 5.0 5.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | and instruction; safe choreography; analysis of how choreography design elements affect safety; written and recorded choreography notation; and the implementation and communication of choreography and intervention strategies. Includes practical experience as a teaching assistant for other stage combat courses or as an assistant fight captain on dramatic productions. | THO130AH) or permission of Program Director. | | | | |
| THO246 | 2023 Fall | Digital Fabrication | AVC246 | Introduction to concepts and application of computer visualization, modeling, and rapid prototyping for interdisciplinary arts. Students will design sculptures applying 3D computer modeling techniques, rapid prototyping, and other available digital output devices to produce solid models. | Prerequisites: None. | | Occ | L+L 3.0 6.0 6.0 | T |
| THO250 | 2023 Fall | Stage Properties | | Introduction to stage properties including design, construction and maintenance features. Provides skills in property design and construction using an assortment of standard materials. | Prerequisites: None. | | Occ | L+L 3.0 4.0 4.0 | T |
| THO251 | 2023 Fall | Safety Practices in Theatre and Film Production | | Safety practices in theatre and film production. Includes Focus on national safety organizations and production practices of theatre stages and soundstages, theatrical rigging, electrical, scenic construction, paint and chemical handling, automation, special effects, welding, and personal safety practices. | Prerequisites: None | | Occ | L+L 1.0 2.0 2.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| THO260 | 2023 Fall | Theatrical Design: Rendering | | Provides experience and explores multiple illustration techniques used to communicate ideas in entertainment production. Provides basic skills including pictorial drawing and sketching. | Prerequisites: None. | | Occ | L+L 2.0 4.0 4.0 | T |
| THO261 | 2023 Fall | Previsualization Modeling | | Provides experience and explores basic pre-visualization methods used to communicate ideas in entertainment preproduction. Provides basic models skills. | Prerequisites: None. | | Occ | L+L 2.0 4.0 4.0 | T |
| THO262 | 2023 Fall | Entertainment Industry Design Drafting | | The fundamentals of drafting for the Entertainment Industry. Includes drafting equipment, geometry, lettering, symbols, drawings (orthographic, isometric, oblique, sectional) and standard drawings used in the entertainment industry including floor plans, sections, elevations, working drawings, and perspective. | Prerequisites: None. | | Occ | L+L 3.0 6.0 6.0 | T |
| THO263 | 2023 Fall | Entertainment Industry Drafting I: 2D CAD | | Introduction to Computer Aided Drafting (CAD) for the Entertainment industry, including stage, screen and television venues, using CAD software. Includes basic set-ups, formats, two-dimensional drawing and editing commands, dimensions, text, and plotting typical to entertainment industries. | Prerequisites: None. | | Occ | L+L 3.0 6.0 6.0 | T |
| THO265 | 2023 Fall | Introduction to Stage Management | | The focus of this course is the role of the stage manager. Topics include all aspects of preparation and implementation of rehearsals and performances for the stage manager position. | Prerequisites: None. | | Occ | L+L 3.0 6.0 6.0 | T |
| THO266 | 2023 Fall | Production Careers in Technical Theatre | | Provides the continuing design, stage management and technical student with | Prerequisites: None. | | Occ | L+L 1.0 2.0 2.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | opportunities to explore the versatility of the job opportunities within the Tech Theatre industry. Emphasis on presenting the work and talent both in person and on paper. Development of a professional resume and vita. | | | | | |
| THO267 | 2023 Fall | Painting Techniques for Film, TV and Theatre | | Theory and skills in scenic artistry. Techniques of painting two-dimensional and three-dimensional scenery, tools, and the use of color. | Prerequisites: A grade of C or better in THP213. | | | L+L 3.0 4.0 4.0 | T |
| THO268 | 2023 Fall | Opportunities in Production | | Provides the continuing design student, dramaturge, stage management, technical director, and directing students with opportunities to expand the versatility of professional skills. Emphasis on relating their work to the total production process. Linking design ideas to production concept. Maintain dramaturge, stage manager, director documentation. Practical application of student work for portfolio development. | Prerequisites: Permission of Department or Division. | Occ<br>Occ | | L+L 3.0 6.0 6.0 | T |
| THO269 | 2023 Fall | Technical Theatre Portfolio Development | | The analysis and preparation of all elements of a Technical Theatre/Design Portfolio including the use of digital portfolios and application to specific disciplines. Practice with portfolio presentation and maintaining and updating portfolio materials. | Prerequisites: None. | | Occ | L+L 1.0 1.0 1.0 | T |
| THO270 | 2023 Fall | Musical Theatre Workshop | MUP270 | Workshop in the study and performance of Musical Theatre repertoire. Includes audition techniques, stage directions, character role development, rehearsal techniques, vocal acting styles and vocal technique, stage | Prerequisites: None. | MUP/THO270 may be repeated for credit. | Occ | L+L 2.0 5.0 5.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | movement, crew roles, and performance. | | | | | |
| THO270AA | 2023 Fall | Musical Theatre Workshop | MUP270AA | Workshop in the study and performance of musical theatre repertoire. Includes audition techniques, stage directions, character role development, rehearsal techniques, vocal acting styles and vocal technique, stage movement, crew roles, and performance. | Prerequisites: None. | MUP/THO270AA may be repeated for a total of two (2) credits. | Occ | LAB 1.0 3.0 3.0 | T |
| THO296WA | 2023 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor. | | Occ | LAB 1.0 5.0 0.0 | Z |
| THO296WB | 2023 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest | | Occ | LAB 2.0 10.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | or with permission of the Instructor. | | | | |
| THO296WC | 2023 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor. | | Occ | LAB 3.0 15.0 0.0 | Z |
| THO296WD | 2023 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor. | Completion of at least twelve (12) college credits minimum 2.6 | Occ | LAB 4.0 20.0 0.0 | Z |
| THP102 | 2019 Spring | Theatre Service Practicum | | Use and develop theatrical skills for service to the community through practical experience. | Prerequisites: Permission of Department or Division. | | | LAB 1.0 2.0 2.0 | T |
| THP112 | 2020 Fall | Acting I | | Fundamental techniques and terminology of acting through physical and vocal expression, improvisation, and monologue | Prerequisites: None. | | Acad | L+L 3.0 4.0 4.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | and scene work. Emphasis on characterization. | | | | | |
| THP131 | 2018 Fall | Stage Movement | | Movement skills for the actor to develop a flexible, expressive physical instrument. Includes pantomime, physical isolation, and awareness exercises | Prerequisites: None. | | Acad | L+L 3.0 4.0 4.0 | T |
| THP151 | 2018 Fall | Theatre for Youth | | Principles and techniques of selecting plays, adapting stories, playwriting, directing, designing, producing, and acting in theatre for youth. The course will provide the opportunity to analyze and experience the production process from creating a script to performing a theatre production for a youth audience. | Prerequisites: None. | THP151 may be repeated for a total of six (6) credit hours. | Acad | L+L 3.0 4.0 4.0 | T |
| THP201AA | 2018 Fall | Theatre Production I | | Designed to give college credit to the cast and technical production crews of college theatre productions. | Prerequisites: None. | THP201AA may be repeated for a total of four (4) credit hours. | Acad | LAB 1.0 2.0 2.0 | T |
| THP201AB | 2018 Fall | Theatre Production II | | Designed to give college credit to the cast and technical production crews of college theatre productions. | Prerequisites: None. | THP201AB may be repeated for a total of four (4) credit hours. | Acad | LAB 2.0 4.0 4.0 | T |
| THP202 | 2018 Fall | Theatre Production Projects | | The objective of this course is to provide hands-on experience in the creation of a theatrical production. This course is tailored around the work done on a production. Structured to provide the student with an atmosphere of professional expertise and guidance. Professional-type facilities and equipment are made available for student use. | Prerequisites: None. | THP202 may be repeated for a total of four (4) credit hours. Repeats 4.0 4.0 | Acad | LAB 1.0 2.0 0.0 | C |
| THP206 | 2020 Fall | Introduction to Costume Construction for Theatre | | Introduction to basic principles used in costuming for theatre including the use of tools and techniques for costume construction, understanding of | Prerequisites: None. | | Acad | LEC 4.0 4.0 4.0 LAB 0.0 2.0 2.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | fabrics and materials, and a selected survey of historical fashion. | | | | | |
| THP211 | 1995 Fall | Creative Drama | | Theory and practice of creative drama, including improvisation, storytelling, puppetry, and script and program development in drama, and their application to elementary and secondary school levels | Prerequisites: None. | | Acad | LEC 3.0 3.0 3.0 | S |
| THP211AA | 1995 Fall | Creative Drama: Improvisation | | Theory and practice of creative drama, including improvisation. Covers improvisation theatre-based activities. Emphasis on application in elementary and secondary school levels | Prerequisites: None. | | Acad | LEC 1.0 1.0 1.0 | S |
| THP211AB | 1995 Fall | Creative Drama: Storytelling/ Puppets | | Theory and practice of creative drama in storytelling and puppetry. Covers use of puppets to enhance storytelling skills. Emphasis on application in elementary and secondary school levels | Prerequisites: None. | | Acad | LEC 1.0 1.0 1.0 | S |
| THP211AC | 1995 Fall | Creative Drama: Script Development | | Theory and practice of creative drama in script development. Covers creation and adaptation of dramatic materials from a variety of sources. Emphasis on application in elementary and secondary school levels | Prerequisites: None. | | Acad | LEC 1.0 1.0 1.0 | S |
| THP212 | 2018 Fall | Acting II | | Fundamental techniques of acting through script analysis, rehearsal, and performance | Prerequisites: A grade of C or better in THP112 or permission of Department or Division. | | | L+L 3.0 4.0 4.0 | T |
| THP213 | 2020 Fall | Introduction to Technical Theatre | | Procedures of technical theatre production and demonstration. Topics include design and construction of scenery, lighting, and properties. | Prerequisites: None. | | Acad | LEC 4.0 4.0 4.0 LAB 0.0 2.0 2.0 | T |
| THP214 | 2018 Fall | Directing Techniques | | Contemporary theory and practice in directing, the | Prerequisites: A grade of C or better in | | | L+L 3.0 4.0 4.0 | T |



Acad

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | evolution of present-day directing procedures, and a sampling of scripts for directing practice. Principles of script analysis, blocking, casting, rehearsing, and performing. | THP112 or THE220, or permission of Instructor. | | | | |
| THP217 | 2021 Fall | Introduction to Design Scenography | | The role of the theatre designer in creating scenic, lighting, costume, sound, and multimedia effects for stage productions. Elements of the design process and communication of dramatic themes and visions to the audience. | Prerequisites: None. | Course Attribute(s): General Education Designation: Humanities, Arts and Design - [HU] | Acad | L+L 3.0 4.0 4.0 | T |
| THP241 | 2010 Fall | Oral Interpretation of Literature | COM241 | The study, analysis, and preparation for performance of prose, poetry, and dramatic literature. Preparation of material for public audiences. | Prerequisites: A grade of C or better in ENG101 or ENG107. | Course Attribute(s): General Education Designation: Humanities, Arts and Design - [HU] General Education Designation: Literacy and Critical Inquiry - [L] | Acad | LEC 3.0 3.0 3.0 | S |
| THP271 | 1995 Fall | Voice and Diction | COM271 | Exercises and techniques to free the voice and improve projection, resonance, and articulation. Covers international phonetic alphabet and standard stage speech | Prerequisites: None. | | Acad | LEC 3.0 3.0 3.0 | S |
| THP273 | 2020 Fall | Musical Theatre Production | MUP273 | Principles and techniques for musical theatre production performance. Includes audition techniques, stage directions, character role development, rehearsal techniques, vocal acting styles and vocal technique, stage movement, crew roles, and performance. | Prerequisites: By audition. | | Acad | LAB 1.0 5.0 5.0 | T |
| THP281 | 2018 Fall | Production and Acting I | | Provides the continuing acting student with opportunities to expand the versatility of characterization skills. Emphasis on relating the actor's work to the total production process. | Prerequisites: Permission of Department or Division. | | | L+L 3.0 4.0 4.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Performance of monologues, scenes, and one-act plays. | | | | | |
| THP282 | 2018 Fall | Production and Acting II | | Provides the continuing acting student with opportunities to expand the versatility of characterization skills. Emphasis on relating the actor's work to the total production process. Performance of monologues, scenes, and one-act plays | Prerequisites: A grade of C or better in THP281 or permission of Department or Division. | | | L+L 3.0 4.0 4.0 | T |
| THP285 | 2012 Fall | Creating/Performing Solo/Collaborative Works | STO285 | Developing, rehearsing, and performing solo and collaborative works for fringe festivals and other storytelling and theatre venues. | Prerequisites: None. | Acad | Acad | LEC 3.0 3.0 3.0 | S |
| THP291AA | 2024 Fall | Summer Conservatory: Stage Movement | | Techniques of body centering, coordination, relaxation, energization, and physical expression for the actor. | Prerequisites: By audition and interview only, or permission of Instructor, or Program Director. | RDG100 satisfies RDG091 requirement. RDG100 may be repeated for a total of twelve (12) credit hours. | Acad | L+L 1.0 2.0 2.0 | T |
| THP291AB | 2024 Fall | Summer Conservatory: Voice and Diction | | Basic principles and techniques of voice production and stage speech for the actor. | Prerequisites: By audition and interview only, or permission of Instructor, or Program Director. | THP291AA may be repeated for a total of three (3) credit hours. | Acad | L+L 1.0 2.0 2.0 | T |
| THP291AC | 1988 Fall | Summer Conservatory: Script Analysis (ACT) | | Theory and practice in analysis of dramatic literature for the actor. Emphasis on techniques of character analysis for interpretation. | By audition and interview only. | THP291AC may be repeated for a total of three (3) credit hours. | Acad | LEC 1.0 1.0 1.0 | S |
| THP291AD | 2024 Fall | Summer Conservatory: Improvisation | | Techniques of improvisation to develop the actor's creativity. Emphasis on inner resources, sensory memory, and emotional memory. | Prerequisites: By audition and interview only, or permission of Instructor, or Program Director. | THP291AB may be repeated for a total of three (3) credit hours. | Acad | L+L 1.0 2.0 2.0 | T |
| THP291AE | 2024 Fall | Summer Conservatory: Scene Study | | Basic methodology and process of rehearsing and creating a character through prepared scenes for faculty critique and analysis. | Prerequisites: By audition and interview only, or permission of Instructor, or Program Director. | THP291AD may be repeated for a total of three (3) credit hours. | Acad | L+L 1.0 2.0 3.0 | T |
| THP291AG | 2018 Fall | Summer Conservatory: Production (ACT) | | Practicum in rehearsal and stage performance through public productions. | Prerequisites: By audition and interview only. | THP291AG may be repeated for a total of twelve (12) credit hours. | Acad | L+L 4.0 5.0 5.0 | T |
| THP292AA | 2018 Fall | Summer Conservatory: Theatre Technology | | Theory and practice of technical phases of play | Prerequisites: By interview only. | THP292AA may be repeated for a total of nine (9) credit hours. | Acad | L+L 3.0 4.0 4.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | production. Includes applications in scenery, properties, and lighting. | | | | | |
| THP292AB | 2018 Fall | Summer Conservatory: Projects | | Independent supervised studies in technical theatre applications. Emphasis on topic selection addressing individual student interests and abilities. | Prerequisites: By interview only. | THP292AB may be repeated for a total of nine (9) credit hours. | Acad | L+L 3.0 4.0 4.0 | T |
| THP292AC | 1988 Fall | Summer Conservatory: Script Analysis (TECH) | | Theory and practice in analysis of dramatic literature as preparation for technical production applications. | Prerequisites: By interview only. | THP292AC may be repeated for a total of three (3) credit hours. | Acad | LEC 1.0 1.0 1.0 | S |
| THP292AD | 2018 Fall | Summer Conservatory: Career Development (TECH) | | Techniques of preparation and presentation of professional materials for the theatre technician and designer. | Prerequisites: By interview only. | THP292AD may be repeated for a total of three (3) credit hours. | Acad | L+L 1.0 2.0 2.0 | T |
| THP292AE | 2018 Fall | Summer Conservatory: Production (TECH) | | Practicum in various aspects of technical theatre production for public performance. | Prerequisites: By interview only. | THP292AE may be repeated for a total of twelve (12) credit hours. | Acad | L+L 4.0 5.0 5.0 | T |
| THP296WA | 2023 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. | Prerequisites: Completion of at least twelve (12) college credits, minimum 2.6 grade point average, and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor. | | Acad | LAB 1.0 5.0 0.0 | Z |
| THP296WB | 2023 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. | Prerequisites: Completion of at least twelve (12) college credits, minimum 2.6 grade point average, and be able to obtain a position related to students academic or | | Acad | LAB 1.0 5.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor. | | | | |
| THP296WC | 2023 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. | Prerequisites: Completion of at least twelve (12) college credits, minimum 2.6 grade point average, and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor. | | Acad | LAB 3.0 15.0 0.0 | Z |
| THP296WD | 2023 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. | Prerequisites: Completion of at least twelve (12) college credits, minimum 2.6 grade point average, and be able to obtain a position related to students academic or career goals (students present job may qualify) or permission of instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor. | | Acad | LAB 4.0 20.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| THP298AA | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment are made available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | Prerequisites: Permission of Program Director or Instructor. | | Acad | LAB 1.0 1.0 0.0 | Z |
| THP298AB | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment are made available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | Prerequisites: Permission of Program Director or Instructor. | | Acad | LAB 2.0 2.0 0.0 | Z |
| THP298AC | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment are made available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student | Prerequisites: Permission of Program Director or Instructor. | | Acad | LAB 3.0 3.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | development. COMMON COMPETENCY COURSE | | | | | |
| TLT100 | 2020 Summer | Telecommunications Math | | Application of the scientific calculator to solve mathematical problems in telecommunications electronics. Scientific notation, engineering notation, metric conversion, algebraic equations, linear equations, graph interpretation, exponents, logarithmic expressions and, binary/hexadecimal concepts related to subnetting. | Prerequisites: A grade of C or better in college-level math course, or appropriate District placement, or permission of Department/Division Chair. | | | LEC 2.0 2.0 2.0 | S |
| TLT141 | 2008 Spring | Telecommunications Computer Operations | | Telecommunications computer operation principles. Covers online training resource utilization, computer log-on procedures, and computer shortcut creation. Also includes specific computer software performance information | Prerequisites: None. | Occ | Occ | LEC 1.0 1.0 1.0 | S |
| TLT142 | 2023 Summer | Drop Connections | | Technical concepts for drop connections. Includes passive and active devices as well as use of filters. Also covers electronics hook up and troubleshooting procedures. | Prerequisites: None. | | Occ | LEC 1.0 1.0 1.0 | S |
| TLT143 | 2023 Summer | Digital Video Systems | | Customer cable digital video signal reception establishment procedures. Covers system feature information, signal fault identification, and system and end-use equipment troubleshooting procedures. Also includes customer education information. | Prerequisites: None. | | Occ | L+L 2.0 3.0 3.0 | T |
| TLT144 | 2023 Summer | Drop Planning and Maintenance | | Procedures for the planning and installation of Broadband Networks to a customer address. Emphasis on drop connection location, configuration, and hardware component selection. Covers | Prerequisites: None. | | Occ | L+L 2.0 3.0 3.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | internal cable routing considerations and grounding, splitting, and directional tap/coupler component information. Also includes basic Broadband Network operation information and electronic hook-up procedures.ectronic hook-up procedures. | | | | | |
| TLT149 | 2023 Summer | Digital Phone Network Installation | | Telephone network installation procedures. Emphasis on multi dwelling unit, multiple broadband applications, and residential telephone networks. Covers component connection as well as basic electronics principles. | Prerequisites: None. | | Occ | L+L 2.0 3.0 3.0 | T |
| TLT152 | 2018 Summer | Telecommunications Product Knowledge | | Telecommunications industry product and service information. Emphasis on video, Internet connection, and telephone services. Covers the advantages and disadvantages of telecommunications product types and the various features associated with each service. | Prerequisites: None. | | Occ | LEC 2.0 2.0 2.0 | S |
| TLT154 | 2018 Summer | Technical Support Representative Foundations | | Foundations of services, products, and regulations in the communications industry. Includes customer database research techniques as well as troubleshooting and billing procedures. | Prerequisites: None. | | Occ | LEC 2.0 2.0 2.0 | S |
| TLT155 | 2018 Fall | Technical Support Representative Telephony | | Practical application of digital telephony account services. Includes account research and creation of work orders in addition to access and navigation of troubleshooting databases. Also covers procedures for managing billing accounts and services. | Prerequisites: None. | | Occ | L+L 2.0 3.0 3.0 | T |
| TLT160 | 2018 Fall | Video Technical Training | | Analog and digital video technical training procedures. | Prerequisites: None. | | Occ | L+L 2.0 3.0 3.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Includes cabling options and types of digital video equipment, as well as products and services. Also covers procedures for completing customer video orders in the Integrated Communications Operations Management System (ICOMS). Troubleshooting procedures, tools, and video flows also included. | | | | | |
| TLT161 | 2018 Fall | Video Technical Training Lab | | Practical application of analog and digital video technical training procedures. Covers procedures for completing customer video orders in the Integrated Communications Operations Management System (ICOMS) | Prerequisites: None. | | Occ | LAB 1.0 2.0 2.0 | T |
| TLT162 | 2023 Summer | High Speed Internet/Networking | | High speed internet installation and networking. Includes features and services of high-speed internet as well as procedures for installation. Also covers home network installation and configuration. | Prerequisites: None. | | Occ | L+L 3.0 4.0 4.0 | T |
| TLT163 | 2023 Summer | High Speed Internet Technical Training | | Procedures for presenting high speed internet products and services. Includes service tiers as well as network facilities and responsibilities. Also covers navigation of operating systems and troubleshooting common problems and procedures. | Prerequisites: None. | | Occ | L+L 2.0 4.0 4.0 | T |
| TLT164 | 2018 Fall | High Speed Internet Technical Training Lab | | Practical application of high speed internet technical training procedures. Covers procedures for completing customer orders in the Integrated Communications Operations Management System (ICOMS) and various industry databases | Prerequisites: None. | | Occ | LAB 1.0 2.0 2.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| TLT165 | 2018 Fall | Technical Support Representative Telephony Lab | | Digital telephony account services. Includes use of the Integrated Communications Operations Management System (ICOMS) and industry databases to complete account services | Prerequisites: None. | | Occ | LAB 1.0 2.0 2.0 | T |
| TLT298AA | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | Prerequisites: Permission of Program Director or Instructor. | | Occ | LAB 1.0 1.0 0.0 | Z |
| TLT298AB | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | Prerequisites: Permission of Program Director or Instructor. | | Occ | LAB 2.0 2.0 0.0 | Z |
| TLT298AC | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and | Prerequisites: Permission of Program Director or Instructor. | | Occ | LAB 3.0 3.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | | | | | |
| TQM101 | 2006 Fall | Quality Customer Service | CSM101 | Examines the nature of quality customer service and the attitudes, knowledge, and skill needed to work effectively in a quality customer service environment. Foundation skills for quality customer services are taught, applied, and practiced | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| TQM220 | 2018 Spring | Leadership and Empowerment Strategies | | Methods for facilitating teams and empowering employees which effectively enable all employees to act upon a shared vision. | Prerequisites: None. | | Occ | LEC 2.0 2.0 2.0 | S |
| TQM230 | 2018 Spring | Teamwork Dynamics | | Theory and practice of how team members and team leaders use listening, negotiating and interpersonal skills for the enhancement of team process. Included are concepts of team development and team problem-solving techniques. | Prerequisites: None. | | Occ | LEC 2.0 2.0 2.0 | S |
| TQM235 | 2018 Spring | Motivation, Evaluation, and Recognition Systems | | Presents methods for benchmarking, assessing team performance, linking recognition to team performance, and valuing victories and mistakes with all personnel. | Prerequisites: None. | | Occ | LEC 2.0 2.0 2.0 | S |
| TQM240 | 2007 Fall | Project Management in Quality Organizations | | Presents methods for quality organizations in how to plan and schedule a project in use of Critical Path Method (CPM) and Program Evaluation and Review Technique (PERT) | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | techniques and software to monitor and control projects | | | | | |
| TRS100 | 2004 Fall | Survey of Translation and Interpretation | | Professional, sociolinguistic, and cognitive aspects of translation and interpretation. Includes social justice goals and language policy for interpretation and translation, role of translators and interpreters, consecutive interpretation, role of norms in legal translation, conservation of meaning, register, and style, meaning of translation, health care interpretation and translation, business and technical translation | Prerequisites: None. | | Acad | LEC 4.0 4.0 4.0 | S |
| TRS102 | 2014 Fall | Translation of English to Spanish | | Analysis of the Spanish language with an emphasis on cross-language similarities and differences. Includes the structure of Spanish, cultural and stylistic components, semantics, dialectal differences and lexical obstacles. Widening of lexicon across specific lexical fields and wider shared underpinnings of Greco-Latin etymologies. Brief introduction to historical development of the Spanish language with specific focus on cognates and false cognates. | Prerequisites: A grade of C or better in (SPA202 or SPA204) and permission of Department or Division. Completion of prerequisites within the last three years is required. | Acad | | LEC 3.0 3.0 3.0 | S |
| TRS103 | 2014 Fall | Translation of Spanish to English | | Analysis of the English language with an emphasis on cross-language similarities and differences. Course includes the structure of English, cultural and stylistic components, semantics, Standard English conventions, and metaphorical and idiomatic English. Introduction to translation of basic | Prerequisites: A grade of C or better in (ENG102 or ENG108) and (SPA202 or SPA204) and permission of Department or Division. Completion of prerequisites within the last three years is required. | | | LEC 3.0 3.0 3.0 | S |



Acad

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | documents from Spanish to English. | | | | | |
| UAS100 | 2020 Fall | sUAS Batteries and Electronics | | Small Unmanned Aircraft Systems (sUAS) basic electronics and circuits, communications, information display systems, transmitter and receiver fundamentals, flight controller installation and tuning, lithium polymer battery basics, radio telemetry, basic electrical troubleshooting and repair techniques. | Prerequisites: Appropriate placement test score in Reading, Writing and Math, or [eligibility in ENG101, (RDG100 or RDG100LL), MAT120, MAT121 and MAT122]. | | Occ | LEC 5.0 5.0 5.0 | S |
| UAS101 | 2019 Summer | Introduction to Unmanned Aircraft Systems Operation | | Introduction to Unmanned Aircraft Systems (UAS) history, flight, avionics, sensors, communication systems, and an introduction to data analysis and applications, such as first responders, Geographic Information Systems, and Precision Agriculture. | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| UAS107 | 2019 Summer | Unmanned Aircraft Systems Operator Certification | | Develop knowledge and skills needed to manage and operate small Unmanned Aircraft Systems (sUAS). Includes Federal Aviation Regulations, radio communications, weather, airspace and airport authorization criteria, loading and performance, aeronautical decision making, sUAS flight operations, and maintenance. Operational skills acquired through both classroom and hands-on flight activities. | Prerequisites: None. | AET138 students must complete the appropriate flight lessons to satisfactorily complete the course. | Occ | LEC 3.0 3.0 3.0 | S |
| UAS205 | 2021 Spring | sUAS Instruments and Autopilot Programming and Uses | | Small unmanned aircraft systems (sUAS) proper operation of ground control stations with remote aircraft, troubleshooting radio link issues, changing parameters, setting up waypoints, flying on autopilot only. | Prerequisites: A grade of C or better in UAS101 and UAS107. Corequisites: UAS206, | | Occ | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| UAS206 | 2021 Spring | sUAS Instrument and Autopilot Flight Lab | | Students will use their advanced skills to manipulate a ground control station in the practical operation of Small Unmanned Aircraft Systems (sUAS) in a controlled, but realistic environment. | Prerequisites: A grade of C or better in UAS101 and UAS107. Corequisites: UAS205. | | Occ | LAB 2.0 2.0 2.0 | T |
| UAS207 | 2020 Fall | sUAS Dynamics and Design | | Design, configuration, and concepts of Small Unmanned Aircraft Systems (sUAS). Platform types including multi-rotors, single rotor, and fixed wing aircraft. | Prerequisites: A grade of C or better in UAS205 and UAS206. Corequisites: UAS208. | | Occ | LEC 5.0 5.0 5.0 | S |
| UAS208 | 2020 Fall | sUAS Dynamics and Design Lab | | Students will assemble, program, preflight, and fly a Small Unmanned Aircraft System (sUAS) manufacturing equipment. | Prerequisites: A grade of C or better in UAS205 and UAS206. Corequisites: UAS207. | | Occ | LAB 2.0 2.0 2.0 | T |
| UAS211 | 2020 Fall | sUAS Ground Control Stations, Telemetry, and Communications | | Small Unmanned Aircraft Systems (sUAS) proper set-up, operation, and basic troubleshooting of many different Ground Control Stations used in the industry. Set-up, use, and configuration of different radio telemetry units. Proper use and procedures of communications with Air Traffic Control. Proper use of applications for use in Air Traffic Management. | Prerequisites: A grade of C or better in UAS207 and UAS208. | | Occ | L+L 3.0 4.0 4.0 | T |
| UAS212 | 2020 Fall | sUAS Maintenance Lab | | Proper inspection, troubleshooting, and repair techniques for Small Unmanned Aircraft Systems (sUAS). | Prerequisites: A grade of C or better in UAS207 and UAS208. | | Occ | LAB 2.0 2.0 2.0 | T |
| UAS215 | 2020 Fall | sUAS Commercial Flight Training | | Proper pre-flight and operation techniques used in a Small Unmanned Aircraft (sUAS) Commercial Environment. Gathering digital information from an inspection or surveillance flight, then demonstrate post-production | Prerequisites: A grade of C or better in UAS207 and UAS208. | | Occ | L+L 3.0 6.0 6.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | skills and techniques for a useable customer product. | | | | | |
| UCS101 | 2022 Summer | Introduction to Billing | | An introduction to basic billing procedures in the public utility industry. Includes computer familiarization, coordinates system, billing cycle, payment plans, and components of the bill. | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| UCS105 | 2017 Spring | Introduction to Public Utility | | Introduction to public utility customer service operations. Emphasis on public utility workstation components and usage procedures. Covers customer service, documentation, and confidentiality policies, as well as service area geography. | Prerequisites: None. | | Occ | LEC 2.0 2.0 2.0 | S |
| UCS108 | 2022 Summer | Account Services for Public Utilities | | Overview of procedures for accessing and maintaining customer accounts. Includes the billing cycle, rates and payment options as well as various types of service orders | Prerequisites: Permission of Department or Division. | | | LEC 1.0 1.0 1.0 | S |
| UCS110 | 2023 Fall | Meter and Trouble Orders | | Fundamentals of meters and their functions. Instruction on handling trouble calls and determining and processing corrective action. | Prerequisites: None. | | Occ | LEC 2.0 2.0 2.0 | S |
| UCS115 | 2014 Spring | Introduction to Water Customer Services | | Introduction to water customer account services. Includes the irrigation process, accounts, and schedules. Also covers delivery systems, controls, and use of a mapping system in addition to water rights and typical irrigation problems. | Prerequisites: None. | Occ | Occ | LEC 2.0 2.0 2.0 | S |
| UCS116 | 2014 Spring | Water Services Accounts I | | Water services procedures and restrictions for opening, combining, and updating accounts as well as responding to billing and payment inquiries and opening accounts. Also covers Supplemental Supply Program (SSP) water and various user | Prerequisites: A grade of C or better in UCS115. | | Occ | LEC 2.0 2.0 2.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | accounts in addition to company role and responsibilities. | | | | | |
| UCS117 | 2014 Spring | Water Services Accounts II | | Water services rules and restrictions for handling property sales, special requests, and order revisions in addition to typical irrigation problems. Also covers procedures for handling private system controls, flood calls, and water theft issues as well as facility notices. | Prerequisites: A grade of C or better in UCS116. | | Occ | LEC 2.0 2.0 2.0 | S |
| UCS118 | 2018 Fall | Water Customer Services Procedures I | | Practical application of water customer account services. Includes procedures for creating, accessing, and updating accounts as well as completing and documenting water orders. Also covers use of the mapping system and procedures for handling typical irrigation calls. | Prerequisites: A grade of C or better in UCS115. | | Occ | L+L 2.0 4.0 4.0 | T |
| UCS119 | 2018 Fall | Water Customer Services Procedures II | | Procedures for completing billing and payment account procedures. Covers refunds, overdraft accounts, and procedures for handling water theft. Also covers special requests, flood calls, and townsite issues in addition to Supplemental Supply Program (SSP) requests. | Prerequisites: A grade of C or better in UCS118. | | Occ | L+L 2.0 4.0 4.0 | T |
| UCS120 | 2022 Summer | Payments, Credits and Rates | | Examination of procedures to perform payment, deposit and credit operations. Includes various connect orders and rate calculations. | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| UCS122 | 2021 Fall | Public Utility Orders I | | Procedures for processing public utility customer requests. Emphasis on determining billing options, service plans, and payment procedures. Covers new account establishment and field activity order processing. | A grade of C or better required in all Prerequisites. Prerequisites or Corequisites: UCS105. | | Occ | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Also includes meter processes and rate change procedures. | | | | | |
| UCS124 | 2021 Fall | Public Utility Orders II | | Practical application in processing public utility customer orders. Emphasis on using workstation and software applications. Covers shut-off, as well as the creation of new accounts. Also covers order modification, payment options, service plan, and deposit requirements. | A grade of C or better required in all Prerequisites. Prerequisites or Corequisites: UCS122. | | Occ | L+L 3.0 4.0 4.0 | T |
| UCS126 | 2018 Fall | Public Utility Service Practices | | Application of public utility customer service practices. Covers account and service plan enrollment, modifications, and cancellations. Includes account handling exceptions and service area geography. Computer usage emphasized. | Prerequisites: A grade of C or better in UCS124 or Corequisites: UCS124. | | Occ | L+L 2.0 3.0 3.0 | T |
| UCS128 | 2021 Fall | Public Utility Processing | | Public utility service processes. Includes procedures for processing multiple service orders, turn-on orders, trouble and outages, and electrical safety hazard orders. Customer service and professional interpersonal communications emphasized. | A grade of C or better required in all Prerequisites. Prerequisites or Corequisites: UCS126. | | Occ | LEC 3.0 3.0 3.0 | S |
| UCS130 | 1996 Spring | Service Orders I | | Fundamentals of processing service orders. Emphasis on customer service, making determinations of services required and placing appropriate orders | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| UCS134 | 2021 Fall | Advanced Public Utility Processing | | Procedures for practical application in processing public utility customer requests. Includes advanced billing inquires, collection, and documentation procedures, as well as energy usage analysis and consumption rates. Meter reads and billing adjustments also covered. | A grade of C or better required in all Prerequisites. Prerequisites or Corequisites: UCS128. | | Occ | L+L 3.0 4.0 4.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| UCS135 | 1996 Spring | Service Orders II | | Further examination of the processing of service orders. Emphasis on customer account data, account status, third party billings and placing appropriate orders | Prerequisites: A grade of C or better in UCS130. | | Occ | LEC 2.0 2.0 2.0 | S |
| UCS140 | 2018 Fall | Service Order Procedures | | Practical application of service order processing. Includes meter and trouble orders, requests for service, billings and rates, as well as account turn-offs and reconnects. | Prerequisites: A grade of C or better in UCS135. | | Occ | L+L 2.0 4.0 4.0 | T |
| UCS180 | 2022 Summer | Introduction to Water Delivery Customer Service | | Introduction to water customer delivery operations. Includes an overview of the irrigation process, the irrigation system, delivery responsibilities and schedules. Also covers delivery systems, controls, and use of a mapping system in addition to water rights and typical irrigation problems. | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| UCS182 | 2022 Summer | Water Delivery Management | | Water delivery procedures for managing the flow of irrigation water through the irrigation system to both residential and agricultural customers. Also covers field customer service for agricultural and residential water customers as well as role and responsibilities for irrigation water delivery. | Prerequisites: None. | | Occ | LEC 2.0 2.0 2.0 | S |
| UCS184 | 2022 Summer | Water Delivery Operations | | Water delivery service areas, delivery devices, and responsibilities for managing irrigation water. Covers procedures for handling system controls and issues as it relates to water delivery in addition to procedures for dry-up and clearance. | Prerequisites: None. | | Occ | L+L 2.0 3.0 3.0 | T |
| UCS186 | 2022 Summer | Water Delivery Measurements | | Practical application of irrigation water delivery measurement. Includes procedures to safely and correctly open water delivery | Prerequisites: None. | | Occ | L+L 2.0 3.0 3.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | devices, determine accuracy of and correct water flow. Also covers safety and security procedures. | | | | | |
| UCS188 | 2022 Summer | Water Delivery Operations Lab | | Practical application of water delivery procedures for managing the flow of water through the irrigation system to both residential and agricultural customers. | Prerequisites: None. | | Occ | L+L 1.0 3.0 3.0 | T |
| UTP110 | 2016 Spring | Hand and Power Tools for Linemen | | Use, maintenance, and safety procedures for common hand and power tools used in the electric power industry. | Prerequisites: None. | | Occ | LEC 1.0 1.0 1.0 | S |
| UTP111 | 2016 Spring | Line Work Equipment and Safety | | Overview of the line work industry including its history, technological developments, and current practices. Covers an introduction to industry equipment and tools with a focus on safety practices and procedures. Inspection and maintenance of equipment and tools used in pole climbing and cover-up procedures. Emphasis on safety operations. | Prerequisites: None. | | Occ | LEC 4.0 4.0 4.0 | S |
| UTP112 | 2016 Spring | Line Construction | | Introduction to line construction equipment and procedures. Includes personal protective equipment, climbing equipment, and basic line materials. Also covers procedures for handling wood poles, de-energized lines, and one-man pole-top rescues, in addition to equipment and procedures for grounding and creating a safe zone. | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| UTP113 | 2016 Spring | Rigging Fundamentals | | Fundamentals of rigging for linemen. Includes safe use of rigging components including ropes, knots, handlines, and block and tackle. Covers rigging calculations and | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | approaches to basic rigging tasks, in addition to hazards. | | | | | |
| UTP114 | 2016 Spring | Line Construction Procedures | | Line construction procedures including pole change out, horizontal line construction, and taking lines out of service. Covers distribution line symbols, compatible units, and second point of contact, in addition to calculating pulling tension and procedures for stringing overhead service and approaching hot circuits. | Prerequisites: A grade of C or better in UTP112. | | | LEC 3.0 3.0 3.0 | S |
| UTP115 | 2016 Spring | Underground Line Construction | | Introduction to underground line construction. Includes a comparison of duct and vault underground systems. Also covers Blue Stake laws and markings, procedures for pulling and maintaining underground cable, and safety considerations for trenching and excavating. | Prerequisites: None. | Occ | Occ | LEC 2.0 2.0 2.0 | S |
| UTP150 | 2016 Spring | Introduction to Transformer Theory | | Introduction to transformers and transformer theory. Covers the basic structure, components and applications of single-phase and three phase transformers. Includes interpretation of transformer nameplates, in addition to characteristics and functions of distribution transformers. | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| UTP151 | 2016 Spring | Transformer Theory Design and Function | | Comparison of function of various types of transformers. Includes design of single-phase and three-phase transformers, as well as safety procedures and precautions for energizing transformers. Also covers wiring transformers in parallel and three-phase connection diagrams. | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| UTP152 | 2016 Spring | Transformer Diagramming and Calculations | | Diagramming and calculations in transformer theory. Includes | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | use of the Pythagorean Theorem and sine and cosine waves and functions to complete calculations. Also covers secondary and primary voltage, voltage ratio and loss calculations, in addition to blueprint reading. | | | | | |
| UTP155 | 2016 Spring | Introduction to Hot Stick | | Introduction to hot stick terminology, tools, and procedures. Includes procedures for cleaning, storage, and handling in addition to inspection and testing. Also covers tie-wires, preform ties, hold tags, and live line tailboard development. | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| UTP156 | 2016 Spring | Hot Stick Theory and Calculations | | Rigging theory and calculations for hot stick application, including Working Load Limit (WLL). Also covers slings, personal protective grounding, and protective cover, in addition to energized conductors and lines. | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| UTP157 | 2016 Spring | Hot Stick Work Site and Equipment | | Hot stick work site, materials, and equipment procedures. Covers fault location, meter load, tower erection, and phasing sequences in addition to procedures for managing safety in confined spaces. Also includes cable preparation and pulling procedures as well as equipment and site operations and safety. | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| UTP210 | 2016 Spring | Personal Protective Grounding | | Considerations and procedures for personal protective grounding with a review of basic electrical circuits. Covers function, sizing, and installation of protective grounding sets on trucks, underground | Prerequisites: None. | | Occ | LEC 2.0 2.0 2.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | distribution systems, and construction projects. Also covers resistance testing, equipotential zones, lightning protection, and live line tools. | | | | | |
| UTP211 | 2016 Spring | Overhead Distribution Line Design | | Introduction to overhead distribution line construction design. Includes overhead construction standards, distribution pole standards, and primary construction units as well as controls and installation standards for various types of capacitors. Also covers clearances, calculations, drawings, and design criteria for overhead distribution line design. | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| UTP212 | 2016 Spring | Underground Distribution Line Design | | Introduction to underground distribution line construction design. Includes construction assembly units, capacitor banks, switching, and fusing as well as applications for conduit and feeder riser compatible units. Also covers clearances, calculations, drawings, and design criteria for underground distribution line design. | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| UTP215 | 2016 Spring | Emerging Technologies | | Overview of emerging technologies in electrical energy production. Includes applications, limitations, and advantages of various types of alternative energy. Also covers characteristics of and advantages to the use of fiber optics. Design and function of Extra High Voltage (EHV) lines also examined. | Prerequisites: None. | | Occ | LEC 2.0 2.0 2.0 | S |
| UTP216 | 2016 Spring | Transformer Operations and Troubleshooting | | Advanced transformer operation and troubleshooting procedures. Includes characteristics of three-phase systems, distribution | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | capacitors, and fusing. Covers transformer calculation including voltage regulation, fault current, and load. Procedures for isolating and testing transformers and system change-out also covered. | | | | | |
| UTP217 | 2016 Spring | Electrical Substations | | A comparison of operation and design of various types of substations. Includes construction planning, design, diagrams, and blueprints, in addition to hazards and safety issues. Also covers substation stresses, superstructures, and equipment function and maintenance. | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| UTP250 | 2016 Spring | Maps and Schematics for Linemen | | Components, coordinates, and symbols for maps and schematics used by linemen. Also includes procedures for access and navigation of mobile Geographic Information Systems (GIS). | Prerequisites: None. | | Occ | LEC 1.0 1.0 1.0 | S |
| UTP251 | 2016 Spring | Metering Theory for Linemen | | Concepts of energy measurement and metering theory for linemen. Includes the power triangle and various metering types, ratings, and strategies for troubleshooting metering problems. | Prerequisites: None. | | Occ | LEC 2.0 2.0 2.0 | S |
| UTP255 | 2016 Spring | Power Distribution Operations | | Transmission and Generation Operations (TGO), Distribution Operations Center (DOC), and Power Distribution Operations (PDO) organization and responsibilities. | Prerequisites: None. | | Occ | LEC 2.0 2.0 2.0 | S |
| UTP258 | 2018 Fall | Applied Line Topics | | Applied line topics for linemen. Includes rigging calculations and derating factors as well as diagramming of three-phase vectors and wiring. Also covers procedures, documentation, and restrictions for receiving, | Prerequisites: None. | | Occ | L+L 3.0 4.0 4.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | modifying, and releasing clearances. | | | | | |
| VET101 | 2020 Fall | Introduction to Veterinary Technology | | Introduces the role of the veterinary paraprofessional to the veterinary science industry. Addresses professional development, including ethics, professionalism, and legal implications of veterinary practice. Students will be introduced to animal husbandry and nutrition, animal behavior, species and breed identification, the human-animal bond, biosecurity, equine medicine, livestock medicine, companion animal medicine, and lab animal medicine. | Prerequisites: None. Corequisites: VET101LL. | Completion of High school biology is recommended prior to enrolling in VET101. | Occ | LEC 3.0 3.0 3.0 | S |
| VET101LL | 2020 Fall | Animal Care Skills I Laboratory | | Principles of daily animal husbandry, socialization, enrichment, and clinical care of animals housed in campus facilities. Introductory veterinary technology students work on building teamwork, communication and veterinary technical skills encountered in the daily operations of a multi-species veterinary facility. | Prerequisites: None. Corequisites: VET101. | | Occ | LAB 2.0 2.0 0.0 | P |
| VET103 | 2022 Fall | Veterinary Assisting I | | Provides students with the hands-on skills needed to perform the duties of a veterinary assistant. Introduction of the basic veterinary assistant skills needed to assist veterinary professionals in the quality care of animals. Includes basic introduction to anatomy and physiology of domestic animals, front office skills, communication and client relations, animal restraint, | Prerequisites: None. | | Occ | LEC 3.0 2.0 2.0 LAB 0.0 3.0 3.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | nursing, vaccinations and other basic assisting skills. | | | | | |
| VET104 | 2022 Fall | Veterinary Assisting II | | This is a lecture/laboratory course where students will learn hands on skills needed to perform the duties of a veterinary assistant. The course will build foundation skills for veterinary clinical care for the veterinary assistant. This course includes foundations in pharmacy and pharmacology, surgical preparation and assisting, the veterinary assistant's role in collection of laboratory samples, and diagnostic imaging. | Prerequisites: A grade of C or better in VET101 and VET103. High school biology strongly recommended. | Occ | | LEC 3.0 2.0 2.0 LAB 0.0 3.0 3.0 | T |
| VET109 | 2022 Fall | Veterinary Assisting Internship | | Provides students with clinical experience in a small animal general veterinary practice. Provides the opportunity for practical application and development of knowledge, skills, and abilities acquired in program coursework at a veterinary assistant level. Students have exposure to practice philosophies, methodologies, and real-life situations requiring critical thinking and decision-making abilities. Includes instruction and evaluation by veterinarians or veterinary technicians guided by the National Association of Veterinary Technicians in America Veterinary Assistant Student Essential and Recommended Skills list. | Prerequisites: A grade of C or better in VET101 and VET103. Corequisites: VET104. | | Occ | LAB 1.0 1.0 0.0 | C |
| VET112 | 2018 Fall | Animal Nursing I | | Training in and supervised performance of skills necessary in the husbandry and clinical care and treatment of animals. | Prerequisites: A grade of C or better in VET101 and admission to the Veterinary Technology/Animal | | | LEC 2.0 2.0 2.0 LAB 0.0 3.0 3.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Occupational hazards and safety in livestock, companion animal, and laboratory animal facilities. Introduction to medical terminology. Restraint and handling, feeding, and housing of a variety of animal species. Physical examination of various species of animals. Principles of sanitation, disinfection, sterilization, and aseptic technique. Principles and techniques of medication administration, fluid therapy, and vaccination. Familiarization with operation of various types of animal care equipment. Introduction to laboratory techniques. Professional ethics and the human-animal bond. | Health program or permission of Instructor. | | | | |
| VET132 | 2017 Fall | Veterinary Office Management and Client Communication | | Principles and practice of veterinary office management for veterinary technology students. Client relations, receptionist skills, telephone techniques, interpersonal skills, and personnel management. Generation and maintenance of correspondence, medical records, legal forms, and hospital logs. Basic bookkeeping, accounting, and financial management principles. Marketing and public relations. Professional ethics and professionalism. Use of computers for data entry, patient record management and inventory control. | Prerequisites: A grade of C or better in VET101 or permission of Instructor. | | Occ | LEC 3.0 3.0 3.0 | S |
| VET140 | 2020 Fall | Animal Care Skills II | | Practical application of animal care skills and principles of animal care and management using techniques and | Prerequisites. None. Corequisites: VET150 or VET151 and admission to the | VET140 may be repeated for a total of four (4) credit hours. | Occ | LAB 2.0 2.0 0.0 | P |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | knowledge learned in the veterinary technology classes. Students expand their animal care knowledge, skills and abilities to include skills needed to be successful in clinical internships. | Veterinary Technology program. | | | | |
| VET150 | 2019 Spring | Veterinary Anatomy and Physiology I | | Comparative evaluation of the anatomy and physiological functions of various body systems of livestock, companion animals, and laboratory animals. | Prerequisites: A grade of C or better in (BIO181, CHM130, CHM130LL, CRE101, ENG102, MAT120, and VET101) and admission to the Veterinary Technology/Animal Health Program. | | | LEC 3.0 3.0 3.0 | S |
| VET150LL | 2018 Fall | Veterinary Anatomy and Physiology Laboratory I | | Laboratory experience in support of VET150. Includes dissection of preserved animal specimens. | Prerequisites: None. Corequisites: VET150. | | Occ | LAB 1.0 3.0 3.0 | T |
| VET151 | 2019 Spring | Veterinary Anatomy and Physiology II | | Focuses on unique anatomic structures and physiological processes which are clinically important in veterinary medicine. Anatomical and physiological bases of clinic procedures, animal disease processes, and veterinary treatments. | Prerequisites: A grade of C or better in VET150 or permission of Instructor. | Occ | Occ | LEC 3.0 3.0 3.0 LAB 0.0 3.0 3.0 | T |
| VET200 | 2023 Fall | Veterinary Clinical Pathology Methods | | Fundamental studies of laboratory techniques and procedures involved in evaluating veterinary clinical samples. Includes hematology, urinalysis, hemostasis, blood biochemistry and enzymology, serology, cytology, and parasitology. The veterinary technician's role in sample collection, sample storage and handling, and performance of analytic procedures. Use of laboratory equipment, laboratory safety and | Prerequisites: A grade of C or better in BIO205 or permission of Instructor. Corequisites: VET223 | Occ | | LEC 2.0 2.0 2.0 LAB 0.0 3.0 3.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | management, and quality control. | | | | | |
| VET201 | 2020 Fall | Animal Care Skills III | | Practical application of animal care skills and principles of animal care and management using techniques and knowledge learned in the veterinary technology classes. Students expand their animal care knowledge, skills and abilities to include skills needed to be successful in clinical internships. | Prerequisites: None. Corequisites: VET210 and VET240 and admission to the Veterinary Technology program. | VET201 may be repeated for a total of four (4) credit hours. | Occ | LAB 2.0 2.0 0.0 | P |
| VET210 | 2023 Fall | Animal Nursing II | | Instruction in and hands-on application of techniques of veterinary nursing care, patient assessment, equipment operation, diagnostic sample collection, and medical treatment. Physical examination, clinical nutrition, and reproductive management of the dog and cat. Operation of E.C.G. and anesthetic machine. Fluid therapy, wound therapy, and bandaging. Surgical instruments and packs. Common diagnostic and therapeutic procedures on animals. | Prerequisites: A grade of C or better in (VET112 and VET151) or permission of Instructor. | Occ | | LEC 3.0 3.0 3.0 LAB 0.0 3.0 3.0 | T |
| VET220 | 2021 Spring | Veterinary Pharmacology for the Veterinary Technician | | Actions and uses of pharmacological agents used in veterinary medicine; drug classifications, modes of action, indications and contraindications, routes of administration, and mechanisms of elimination. Dispensing and pharmacy management, and laws regulating controlled substances. Solving medical math problems and calculating drug doses. | Prerequisites: A grade of C or better in VET101 and VET151. Corequisites: VET223. | Occ | | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| VET223 | 2021 Spring | Animal Diseases | | Study of common infectious, parasitic, metabolic, immunologic, and degenerative diseases of domestic animals. Infectious disease transmission, mechanisms of disease, the host-parasite relationship, and host responses to disease agents. Clinical signs and management of common diseases. Life cycles of common parasites. Principles of disease prevention, environmental management, vaccination, and zoonosis. Diagnostic techniques including gross and microscopic identification of common animal pathogens. | Prerequisites: A grade of C or better in VET151. BIO205 recommended. | Occ | | LEC 3.0 3.0 3.0 | S |
| VET230 | 2018 Fall | Veterinary Radiology and Imaging for the Veterinary Technician | | Veterinary and radiographic terminology, radiation and electrical protection, technical principles, radiographic equipment operation - manual and digital, and radiographic duties of the Veterinary Technician. Introduction to ultrasound, MRI, CAT scans, and other non-traditional imaging uses and techniques. Lab allows for practical application of theories and radiographic positioning as taught in lecture. | Prerequisites: A grade of C or better in (VET150 and VET150LL) or permission of Instructor. | Occ | | LEC 3.0 3.0 3.0 LAB 0.0 3.0 3.0 | T |
| VET235 | 2018 Fall | Veterinary Technician Proficiency | | Review of pertinent subject matter in preparation for the Arizona State Veterinary Technician Examination and the Veterinary Technician National Examination. Guided review and discussion of exam application process. Review of student's Veterinary Technology Student Essential and Recommended Skills to | Prerequisites: A grade of C or better in VET210, VET220, and VET223. Corequisites: VET240. | | | L+L 2.0 2.0 2.0 | T |



Occ

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | ensure completion for graduation as required by the American Veterinary Medical Association. May included field trips or guest lecturers. | | | | | |
| VET240 | 2020 Spring | Veterinary Anesthesia, Surgery, and Emergency Nursing | | Veterinary surgical nursing skills associated with aseptic technique and proper protocol in the surgery suite. Pre and post-op monitoring, record keeping, and client education skills. Procedures and techniques with intravenous and inhalation anesthetics, surgical asepsis, skin preparation, instrument sterilization techniques and monitoring veterinary patients for vital signs. | Prerequisites: A grade of C or better in VET210 and VET220. | Occ | | LEC 3.0 3.0 3.0 LAB 0.0 4.0 4.0 | T |
| VET250AA | 2019 Fall | Veterinary Technician Internship | | Provides Veterinary Technology program students with off-campus clinical experience in a small animal general veterinary practice. Opportunity for practical application and development of knowledge, skills, and abilities acquired in program coursework. Exposure to practice philosophies, methodologies, and real-life situations requiring critical thinking and decision-making abilities. Includes instruction and evaluation by veterinarians or veterinary technicians guided by the American Veterinary Medical Association's Veterinary Technology Student Essential and Recommended Skills list. | Prerequisites: A grade of C or better in VET112, VET132, and VET151. | Occ | | LAB 0.5 0.5 0.0 | C |
| VET250AB | 2019 Fall | Veterinary Technician Internship | | Provides Veterinary Technology program students with off-campus clinical experience in a large animal general veterinary practice. | Prerequisites: A grade of C or better in VET250AA. | | | LAB 0.5 0.5 0.0 | C |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Opportunity for practical application and development of knowledge, skills, and abilities acquired in program coursework. Exposure to practice philosophies, methodologies, and real-life situations requiring critical thinking and decision-making abilities. Includes instruction and evaluation by veterinarians or veterinary technicians guided by the American Veterinary Medical Association's Veterinary Technology Student Essential and Recommended Skills list. | | | | | |
| VET250AC | 2019 Fall | Veterinary Technician Internship | | Provides Veterinary Technology program students with off-campus clinical experience in an emergency veterinary clinic and in a veterinary specialty practice. The internship hours will be split equally between the emergency clinic and the specialty practice. Specialty practices my include surgery, ophthalmology, internal medicine, dentistry, dermatology, radiology, exotics, zoo, research, and others. Opportunity for practical application and development of knowledge, skills, and abilities acquired in program coursework. Exposure to practice philosophies, methodologies, and real-life situations requiring critical thinking and decision-making abilities. Includes instruction and evaluation by veterinarians or veterinary technicians guided by the American Veterinary | Prerequisites: A grade of C or better in VET250AB or permission of Instructor. | | Occ | LAB 0.5 0.5 0.0 | C |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Medical Association's Veterinary Technology Student Essential and Recommended Skills list. | | | | | |
| VET250AD | 2019 Fall | Veterinary Technician Internship | | Continuing practical application and mastery of knowledge, skills, and abilities in the selected clinical setting. Exposure to practice philosophies, methodologies, and real-life situations requiring critical thinking and decision-making abilities. Includes instruction and evaluation by veterinarians or veterinary technicians guided by the American Veterinary Medical Association's Veterinary Technology Student Essential and Recommended Skills list. | Prerequisites: A grade of C or better in VET250AC or permission of Instructor. | VET250AD allows the last-semester Veterinary Technology Program student to elect to repeat the off-campus clinical experience of either VET250AA, VET250AB, or VET250AC, depending upon their career interest. | Occ | LAB 0.5 0.5 0.0 | C |
| WAC101 | 2020 Fall | Writing Across the Curriculum | | Expressive, expository, and academic writing experiences to develop students' rhetoric and composition foundation. Experience planning and drafting multi-paragraph essays through a writing process with emphasis on essay and paragraph structure and the elements of sentence structure. Participation in writing workshop, group work, reading to support writing tasks, and writing from sources. A minimum of three multi-paragraph essays and a final reflection paper. | Prerequisites: None. | | Acad | LEC 3.0 3.0 3.0 | S |
| WED105 | 1991 Fall | Minimizing Workplace Stress | | Introduction of the application of Practical Relaxation Techniques for reducing workplace stress. Defines the characteristics, process and signs of worplace stress. Includes discussions of the physiology of stress and how | Prerequisites: None. | | Occ | LEC 0.5 0.5 0.5 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | these responses impact daily living. Use of the biofeedback instruments to monitor the relaxation techniques such as self-hypnosis, visualization, guided imagery, and meditation | | | | | |
| WED106 | 2023 Fall | Cardiopulmonary Resuscitation (CPR)/Automated External Defibrillator (AED) | | Basic overview of Cardiopulmonary Resuscitation (CPR) and Automated External Defibrillator (AED). Covers choking procedures and the importance, guidelines, and techniques for performing CPR and utilizing an AED. | Prerequisites: None. | | Occ | LEC 0.5 0.5 0.5 | S |
| WED107 | 2023 Fall | Community First Aid | | Basic first aid course for the layperson. Training with the assessments and skills that be performed with minimal equipment in common home or workplace emergencies until emergency medical personnel arrive. | Prerequisites: None. | | Occ | L+L 0.5 0.5 0.5 | T |
| WED120 | 2018 Fall | Massage Therapy: Anatomy Refresher - Upper Body | | This course is designed for individuals in the field of massage therapy and provides a review of upper body musculature affecting the neck, shoulder, spine, elbow and wrist joints. Origins and insertions and resistive stretches included. | Prerequisites: None. | WED120 may be repeated for a total of six (6) credit hours. | Occ | L+L 1.0 1.0 1.0 | T |
| WED125 | 2018 Fall | Reiki: Healing and Symbols | | Introduction to Reiki as a Japanese technique for stress reduction and relaxation that also promotes healing. Instruction in the Usui method of Reiki and its symbols and applications to personal health and everyday life. | Prerequisites: None. | WED125 may be repeated for a total of ten (10) credits. | Occ | L+L 2.0 2.0 2.0 | T |
| WED126 | 2020 Fall | Cupping Therapy | | Introduction to cupping therapy for individuals in the field of massage therapy. In addition but not limited to the history, techniques and | Prerequisites: None. | WED126 may be repeated for credit. | Occ | L+L 1.0 1.0 1.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | application in various therapeutic settings. | | | | | |
| WED145 | 2023 Fall | Reflexology | | History and application of specific pressure points on the hands and feet that have correlation to different body organs and systems. Practice of micromovement techniques with the goal of creating a response throughout the body. | Prerequisites: None. | WED145 may be repeated for a total of six (6) credit hours. | Occ | L+L 1.0 1.0 1.0 | T |
| WED151 | 2004 Fall | Introduction to Alternative Medicine | | Definition of health; exploration of mind-body-spirit connection in health; various therapeutic modalities; identification of strengths and limitations of alternative therapies. Also includes development of ability to critically review written material in the alternative therapy area | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| WED152 | 2023 Fall | Comparative Healing Techniques | | Comparative approaches to healing, including allopathy, homeopathy, chiropractic, osteopathy, Chinese medicine, Ayurveda, Shamanism, and therapeutic touch. Contrast explanations for causation of disease, diagnostic procedures, and healing methodology. | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| WED154 | 2023 Fall | First Aid/Cardiopulmonary Resuscitation | | Cardiopulmonary Resuscitation (CPR) and first aid for the adult, child and infant patients includes Automated External Defibrillator (AED), rescue breathing, obstructed airway, and other first aid procedures. Designed to train citizen responders in skills and procedures required during emergency situation. | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| WED155 | 2023 Fall | Introduction to Chinese Medicine | | Basic theories, principles, and methods that constitute the | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | backbone of Chinese Medicine. Explores concepts of Yin, Yang, the Five Elements (Wood, Fire, Earth, Metal, and Water), and the Five Vital substances (Qi, Blood, Body Fluids, Jing, and Shen). Overview of the physiology of the major internal organs (Five Zang and Six Fu) with a focus on their various interrelationships. | | | | | |
| WED162 | 2023 Fall | Meditation and Wellness | | Physiology of meditation and its effects on physical and mental health; scholastic abilities and interpersonal relationships; differentiation between meditation and other relaxation techniques. | Prerequisites: None. | | Occ | LEC 1.0 1.0 1.0 | S |
| WED165 | 2001 Fall | Overview of Massage Therapy | | History of massage; overview of bodywork systems; benefits and indications of massage; legal requirements for practice in Arizona | Prerequisites: None. | | Occ | LEC 2.0 2.0 2.0 | S |
| WED166 | 2023 Fall | Overview of FELDENKRAIS (R) Awareness Through Movement (R) | | Movement activity lessons which are verbally directed, exploratory in nature, designed to clarify the full range of possibility for human movement and action. Self-paced lessons in a noncompetitive environment. | Prerequisites: None. | | Occ | LEC 1.0 1.0 1.0 | S |
| WED170 | 1997 Fall | Principles of Homeopathy | | Origins of homeopathy; key concepts; perceptions of disease; schools of homeopathy; scientific studies; preparation of remedies; case taking | Prerequisites: None. | | Occ | LEC 1.0 1.0 1.0 | S |
| WED172 | 2000 Fall | Overview of Herbal Remedies | | History and evolution of herbs for healing applications. Preparation, usage, and effects of certain herbs used for healing purposes. Basic literature review skills in the area of herbal medicine | Prerequisites: None. | | Occ | LEC 1.0 1.0 1.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| WED174 | 2023 Fall | Myofascial Release | | Introduction to myofascial release techniques and application. Myofascial Release (MFR) is a therapeutic modality that allows restricted fascia to release from a tightened state. MFR improves nerve conductivity and circulation of blood and lymph, which allows the healing powers of the body to flow to restricted tissues. The result is relief from chronic pain and the potential for healing injured tissue. | Prerequisites: None. | WED174 may be repeated for credit. Counts as 13.3 continuing education units (CEUs). | Occ | L+L 1.0 1.0 1.0 | T |
| WED176 | 1997 Fall | Flower Essences | | Healing properties of Bach flower remedies; Bach's development of remedies and his philosophy of healing; use and preparation of a variety of flower essences | Prerequisites: None. | | Occ | LEC 1.0 1.0 1.0 | S |
| WED181 | 2018 Fall | Essential Oil Properties and Formulations | | Focuses on the benefits of individual plant oils, profiling past to present day uses and documented properties; experiential evaluation of the oils; how to formulate topical blends; oil substitution using less expensive oils; hands-on learning. | Prerequisites: None. | | Occ | L+L 1.0 1.0 1.0 | T |
| WED182 | 2006 Fall | Health Conditions and Popular Herbs | | In-depth look at some of today's most popular herbs and their relationship to specific health conditions. Emphasis on research skills in relation to popular herbs. Includes the effects, uses, and application strategies of herbs. | Prerequisites: None. WED172 suggested but not required. | | | LEC 2.0 2.0 2.0 | S |
| WED183 | 2018 Fall | Introduction to Ayurvedic Principles | | Introduction to Ayurveda: "the science of life"; a complete system of balancing the body, mind and spirit, originating from ancient India. Introduction to foundational Ayurvedic principles, health | Prerequisites: None. | WED183 may be repeated for a total of six (6) credits. Occ | | L+L 2.0 2.0 2.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | philosophy and self assessment of basic constitution. Application of basic health and self care practices such as food selection and preparation, exercise and movement, renewal and restoration activities, environmental influences to promote health and well-being. | | | | | |
| WED185 | 2012 Fall | Overview of Movement Therapy Systems | | Definition of health, exploration of mind-body-spirit connection in health, various therapeutic modalities, identification of strengths and limitation of movement based therapies. Also includes development of ability to critically review written material in the physical or movement therapy area. | Prerequisites: None. | | Occ | LEC 2.0 2.0 2.0 | S |
| WED195 | 2023 Fall | Special Topic in Wellness Education | | Introduction to current topics and contemporary issues related to developing and maintaining a healthy lifestyle. | Prerequisites: None. | WED195 may be repeated for credit. | Occ | LEC 0.5 0.5 0.5 | S |
| WED195AA | 2023 Fall | Special Topics in Wellness Education A | | Introduction to current topics and contemporary issues related to developing and maintaining a healthy lifestyle. | Prerequisites: None. | WED195AA may be repeated for credit. | Occ | L+L 0.5 1.0 1.0 | T |
| WED195AB | 2023 Fall | Special Topics in Wellness Education A | | Introduction to current topics and contemporary issues related to developing and maintaining a healthy lifestyle. Focuses on a variety of techniques and strategies to promote wellness. | Prerequisites: None. | WED195AB may be repeated for credit. | Occ | L+L 1.0 1.0 1.0 | T |
| WED195AC | 2023 Fall | Special Topics in Wellness Education A | | Introduction to current topics and contemporary issues related to developing and maintaining a healthy lifestyle. Focuses on a variety of techniques and strategies to promote wellness. | Prerequisites: None. | WED195AC may be repeated for credit. | Occ | L+L 2.0 2.0 2.0 | T |
| WED195AD | 2023 Fall | Special Topics in Wellness Education A | | Introduction to current topics and contemporary issues | Prerequisites: None. | WED195AD may be repeated for credit. | Occ | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | related to developing and maintaining a healthy lifestyle. Focuses on a variety of techniques and strategies to promote wellness. | | | | | |
| WED195BA | 2023 Fall | Special Topics in Wellness Education B | | Introduction to current topics and contemporary issues related to developing and maintaining a healthy lifestyle. | Prerequisites: None. | WED195BA may be repeated for credit. | Occ | L+L 0.5 1.0 1.0 | T |
| WED195BB | 2023 Fall | Special Topics in Wellness Education B | | Introduction to current topics and contemporary issues related to developing and maintaining a healthy lifestyle. | Prerequisites: None. | WED195BB may be repeated for credit. | Occ | L+L 1.0 1.0 1.0 | T |
| WED195BC | 2023 Fall | Special Topics in Wellness Education B | | Introduction to current topics and contemporary issues related to developing and maintaining a healthy lifestyle. | Prerequisites: None. | WED195BC may be repeated for credit. | Occ | L+L 2.0 2.0 2.0 | T |
| WED195BD | 2023 Fall | Special Topics in Wellness Education B | | Introduction to current topics and contemporary issues related to developing and maintaining a healthy lifestyle. | Prerequisites: None. | WED195BD may be repeated for credit. | Occ | L+L 3.0 3.0 3.0 | T |
| WED195CA | 2023 Fall | Special Topics in Wellness Education C | | Introduction to current topics and contemporary issues related to developing and maintaining a healthy lifestyle. | Prerequisites: None. | WED195CA may be repeated for credit. | Occ | L+L 0.5 1.0 1.0 | T |
| WED195CB | 2023 Fall | Special Topics in Wellness Education C | | Introduction to current topics and contemporary issues related to developing and maintaining a healthy lifestyle. | Prerequisites: None. | WED195CB may be repeated for credit. | Occ | L+L 1.0 1.0 1.0 | T |
| WED195CC | 2023 Fall | Special Topics in Wellness Education C | | Introduction to current topics and contemporary issues related to developing and maintaining a healthy lifestyle. | Prerequisites: None. | WED195CC may be repeated for credit. | Occ | L+L 2.0 2.0 2.0 | T |
| WED195CD | 2023 Fall | Special Topics in Wellness Education C | | Introduction to current topics and contemporary issues related to developing and maintaining a healthy lifestyle. | Prerequisites: None. | WED195CD may be repeated for credit. | Occ | L+L 3.0 3.0 3.0 | T |
| WED204 | 2009 Fall | Establishing a Massage Practice | | Explore career options in therapeutic massage, including state licensing requirements, and determine how to lay the groundwork for a successful massage practice | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| WED210 | 2018 Fall | Sports Massage | | Purpose, benefits, and contraindications of sports | Prerequisites: A grade of C or better in | | | L+L 2.0 3.0 3.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | massage; principles of sports physiology; massage techniques, applications, and procedures; treatment of injuries. | WED165 and WED230 or permission of Program Director. | | | | |
| WED215 | 2018 Fall | Self-Care for Health Care Providers | | Emphasis on mind-body methods for personal wellness through integration of physical, emotional, social, and spiritual dimensions of being. Development of a personal practice to achieve and sustain a balanced program to support personal health and well being | Prerequisites: None. | | Occ | L+L 2.0 5.0 5.0 | T |
| WED218 | 1997 Fall | Aromatherapy | | Physiology of aromatherapy; methods of use; preparation of oils; uses in sports, beauty care, massage, child care, health care, at work, and in the home | Prerequisites: None. | | Occ | LEC 1.0 1.0 1.0 | S |
| WED220 | 2023 Fall | Gentle Touch for Individuals Living with Cancer | | Introduction to the gentle-touch approach to massage for individuals who are living with or have survived cancer. Overview of cancer and principal cancer treatments. Clinical considerations, including practice guidelines and hands-on adjustments related to cancer and treatment side effects. Administrative considerations for client intake, treatment plans and session documentation. In addition, comprehensive practical application of massage. | Prerequisites: None. | Previous training in Swedish strokes and massage draping required. WED220 may be repeated for a total of eight (8) credit hours. | Occ | L+L 2.0 2.0 2.0 | T |
| WED225 | 2016 Fall | Reiki: Master Level and Teacher Training | | Advanced Usui method of Reiki, including but not limited to the preparation for placement of symbols, hand movements and attunements. Exploration of the four pillars of Reiki and 4th Reiki symbol and strategies for instruction, | Prerequisites: A grade of C or better in WED125 or permission of Department or Division. | WED225 may be repeated for a total of eight (8) credits. WED225 requires an approved field experience. | Occ | LEC 2.0 2.0 2.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | relationships and classroom management. | | | | | |
| WED230 | 2018 Fall | Therapeutic Massage Practices I | | Principles of professionalism, ethics, and legalities. Includes use of terminology related to massage therapy. Applications, indications, and contraindications of the nine strokes of Swedish massage. Study of the human osseous and muscular structure. Emphasis on normal movement patterns, origins, insertions, and functions of the muscular system | Acceptance into the Therapeutic Massage program or permission of Program Director. | | | L+L 6.0 9.0 9.0 | T |
| WED231 | 2018 Fall | Therapeutic Massage Practices II | | Refined application of the nine strokes of Swedish massage and contraindications to avoid. Application of advanced principles and techniques of trigger point therapy, muscle energy technique, stretching, hydrotherapy protocols, hot and cold applications, reflexology, and corporate massage. Study of the human osseous and muscular structure. Emphasis on normal movement patterns and the origin, insertion, and function of the muscular system | Prerequisites: A grade of C or better in WED230. | Occ<br>Occ | | L+L 6.0 9.0 9.0 | T |
| WED232 | 2018 Fall | Therapeutic Massage Practices III | | Refinement and integration of technical skills, psychosocial competencies, and role identity. Exploration of techniques to assess and facilitate range of motion and function; purpose, benefits, indications, and contraindications of therapeutic massage for specific neuro-musculoskeletal disorders/injury and special populations. Application of massage techniques with | Prerequisites: A grade of C or better in WED231. Corequisites: WED250 or permission of Program Director. | Occ | | L+L 6.0 10.0 10.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | therapists pre- and post-client evaluations of the client. Adaptation of massage techniques for special populations. | | | | | |
| WED250 | 2009 Spring | Clinical Practicum | | Application of fundamental massage techniques. | Prerequisites: A grade of C or better in WED231. Corequisites: WED232 and permission of Program Director. | | | LAB 3.0 6.0 0.0 | C |
| WED250AA | 2014 Spring | Clinical Practicum: Part I | | Application of fundamental massage techniques. | Prerequisites: A grade of C or better in WED231. Corequisites: WED232 and permission of Program Director. | | | LAB 1.5 3.0 0.0 | C |
| WED250AB | 2014 Spring | Clinical Practicum: Part II | | Continued application of fundamental massage techniques. | Prerequisites: A grade of C or better in WED250AA. | Occ | | LAB 1.5 3.0 0.0 | C |
| WED257 | 2018 Fall | Kinetic Meditation | | Focuses on posture, body movement, and energy centered meditations. In depth discussion of Chinese Chi Kung exercises and Chi Meditation. Reviews influence of Taoist and Buddhist philosophies on Chi Kung practice and stress management. Explores Kinetic Meditations, and scientific research into health benefits of Chi Kung practice. | Prerequisites: A grade of C or better in WED151, WED162, PED101DD and (PED101VR or PED101YJ) or permission of Department or Division. | Occ<br>Occ | | L+L 2.0 2.0 2.0 | T |
| WED258 | 2018 Fall | Auditory Meditation | | Focuses on the East Indian Yogic (Siddha) and Ayurvedic (Transcendental) meditation traditions and use of mantras, sounds and music in meditation. Discussion of the Vedanta System of Philosophy and the Bhagavad Gita. Explores the history and popularity of auditory meditations, and scientific research into the health benefits of Transcendental | Prerequisites: A grade of C or better in WED257 or Corequisites: WED257 or permission of Department or Division. | Occ | | L+L 2.0 2.0 2.0 | T |



Occ

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Meditation (TM) and other auditory meditations. | | | | | |
| WED259 | 2018 Fall | Visual Meditation | | Focuses on the use of physical objects and mental images as the focal point for meditation. Focuses on the standing and sitting meditation of the Egyptian and West African traditions and the pantheon of images used to represent life's day-to-day processes. Includes discussion of Egyptian and Yoruba philosophy and the use of natural and artistic items, special words or symbols, religious allegories, and graphic images as focal points for meditation. | Prerequisites: A grade of C or better in WED257 and WED258 or Corequisites: WED257 and WED258 or permission of Department or Division. | Occ | | L+L 2.0 2.0 2.0 | T |
| WED275 | 2016 Fall | Practicum: Teaching Healing, Meditation and Stress Management | | Application, teaching, and training of fundamental healing meditation and stress management techniques. | Prerequisites: A grade of C or better in WED259 and permission of Instructor. | | Occ | LAB 3.0 15.0 0.0 | C |
| WED282AA | 2012 Fall | Service-Learning Experience in Wellness Education | | Unpaid Service-Learning (SL) experience, completed with approved community partner. | Prerequisites: Permission of Instructor. | WED282AA may be repeated for a total of six (6) credit hours. Standard grading available according to procedures outlined in catalog. | Occ | LAB 1.0 1.0 0.0 | L |
| WED282AB | 2012 Fall | Service-Learning Experience in Wellness Education | | Unpaid Service-Learning (SL) experience, completed with approved community partner. | Prerequisites: Permission of Instructor. | WED282AB may be repeated for a total of six (6) credit hours. Standard grading available according to procedures outlined in catalog. | Occ | LAB 2.0 2.0 0.0 | L |
| WED282AC | 2012 Fall | Service-Learning Experience in Wellness Education | | Unpaid Service-Learning (SL) experience, completed with approved community partner. | Prerequisites: Permission of Instructor. | WED282AC may be repeated for a total of six (6) credit hours. Standard grading available according to procedures outlined in catalog. | Occ | LAB 3.0 3.0 0.0 | L |
| WED297AA | 2018 Fall | Special Topics: Therapeutic Massage | | Explores a special topic related to therapeutic massage. Topics vary and include concepts relevant to those pursuing careers in therapeutic massage | Prerequisites: None. | | Occ | L+L 1.0 1.0 1.0 | T |
| WED297AB | 2018 Fall | Special Topics: Therapeutic Massage | | Explores a special topic related to therapeutic | Prerequisites: None. | | Occ | L+L 2.0 2.0 2.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | massage. Topics vary and include concepts relevant to those pursuing careers in therapeutic massage | | | | | |
| WED297AC | 2018 Fall | Special Topics: Therapeutic Massage | | Explores a special topic related to therapeutic massage. Topics vary and include concepts relevant to those pursuing careers in therapeutic massage | Prerequisites: None. | | Occ | L+L 3.0 3.0 3.0 | T |
| WED298AA | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | Prerequisites: Permission of Program Director or Instructor. | | Occ | LAB 1.0 1.0 0.0 | Z |
| WED298AB | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | Prerequisites: Permission of Program Director or Instructor. | | Occ | LAB 2.0 2.0 0.0 | Z |
| WED298AC | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of | Prerequisites: Permission of Program Director or Instructor. | | Occ | LAB 3.0 3.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | | | | | |
| WFR110 | 2007 Summer I | Re-Entry Skills: Personal Skill Development | | Personal skill development necessary for transition from incarceration to community. Includes development of a personal value system and decision-making strategies as well as conflict management. Also covers time and money management, goal setting, and the basics for everyday life | Prerequisites: Permission of Department or Division. | | | LEC 3.0 3.0 3.0 | S |
| WFR112 | 2007 Summer I | Re-Entry Skills: Family Reunification | | Reunification procedures for the incarcerated person's effective transition. Includes building and maintaining self-esteem and effective communication for healthy families or support systems. Also covers family and networking culture, discipline, and expectations for release | Prerequisites: Permission of Department or Division. | Occ | | LEC 3.0 3.0 3.0 | S |
| WFR114 | 2007 Summer I | Re-entry Skills: Social Skill Development | | Social skill development for the incarcerated person preparing to re-enter society. Includes identifying and establishing boundaries as well as modeling these behaviors. Also covers identification of core emotions and development of positive character traits | Prerequisites: Permission of Department or Division. | Occ | | LEC 1.0 1.0 1.0 | S |
| WFR116 | 2007 Summer I | Re-Entry Skills: Substance Abuse Education | | Substance abuse education for incarcerated persons. Includes warning signs and | Prerequisites: Permission of Department or Division. | | | LEC 1.0 1.0 1.0 | S |



Occ

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | the "chain of events" to addiction. Also covers decision making skills as well as strategies and resources available for prevention | | | | | |
| WFR118 | 2007 Summer I | Re-Entry Skills: Job Readiness | | Preparing the incarcerated person for release into the working world. Includes education, skills assessment, and work experience. Also covers job search skills such as resume writing, applications, and interviewing | Prerequisites: Permission of Department or Division. | | | LEC 3.0 3.0 3.0 | S |
| WFR120 | 2007 Summer I | Re-Entry Skills: Job Retention | | Job retention procedures and techniques for incarcerated persons in transition. Includes workplace protocol, job performance, and employer-employee interaction. Also covers stress management and communication skills as well as interpersonal relationships in the workplace | Prerequisites: Permission of Department or Division. | Occ | | LEC 2.0 2.0 2.0 | S |
| WKO298AA | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | Prerequisites: Permission of Program Director or Instructor. | Occ | Occ | LAB 1.0 1.0 0.0 | Z |
| WKO298AB | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and | Prerequisites: Permission of Program Director or Instructor. | | Occ | LAB 2.0 2.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | | | | | |
| WKO298AC | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | Prerequisites: Permission of Program Director or Instructor. | Occ | | LAB 3.0 3.0 0.0 | Z |
| WLD100 | 2005 Spring | Basic Welding | | Shop procedures, safety and personal protection. Grinders, drill presses, and saws. Resistance and oxyacetylene welders. Arc welders: alternating current (AC) and direct current (DC) modes, electrodes, positioning and securing | Prerequisites: Registered apprentice status or permission of the Apprenticeship Coordinator. | | | LEC 2.0 2.0 2.0 | S |
| WLD101 | 2020 Fall | Introduction to Welding | | Introduction to safe operation of shop equipment and common joining and thermal cutting processes used in the welding industry. It is designed to provide a brief exposure to the SMAW, GMAW, FCAW, GTAW, OFW, OFC, PAC processes while developing incremental hands-on skills through sequenced lab experiences. | Prerequisites: None. | Occ | Occ | L+L 3.0 6.0 6.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| WLD102 | 2018 Fall | Basic Welding Metal Sculpture | | Practical training for welders in artistic welding and metal sculpter with emphasis on oxy-ace welding, arc welding, and metal inert gas (MIG) welding. | Prerequisites: None. | WLD102 may be repeated for a total of one hundred fifty (150) credit hours. | Occ | L+L 3.0 6.0 6.0 | T |
| WLD103 | 2018 Fall | Basic Blacksmithing and Metal Shaping | | Selection and safe use of blacksmithing and metal shaping tools and equipment. Material selection and conditioning, practical forging techniques, metal shaping experience, and finishing processes. | Prerequisites: None. | WLD103 may be repeated for a total of one hundred fifty (150) credit hours. | Occ | L+L 3.0 8.0 8.0 | T |
| WLD106 | 2018 Fall | Arc Welding | | Electric welding with emphasis on metallic arc welding in out-of-position practice and procedures | Prerequisites: None. | | Occ | L+L 5.0 8.0 8.0 | T |
| WLD106AA | 2020 Fall | Introduction to SMAW | | Introduction to arc welding with emphasis in Shielded Metal Arc Welding (SMAW). Designed to provide the knowledge and skills needed to cut and prepare weld joints utilizing current technology. Develops hands-on skills through sequenced lab experiences. | Prerequisites: None. | | Occ | L+L 5.0 8.0 8.0 | T |
| WLD106AB | 2020 Fall | SMAW 6010 Plate | | Continued training in shielded metal arc welding (SMAW) with emphasis on using E6010 (fast-freeze) electrodes in all joint positions. Focus is on fillet welds for structural steel and open root groove weld joints. | Prerequisites: A grade of C or better in WLD106AA or permission of Instructor. | | Occ | L+L 5.0 8.0 8.0 | T |
| WLD106AC | 2020 Fall | SMAW 7018 Plate | | Continued training in shielded metal arc welding (SMAW) with emphasis on using E7018 (low hydrogen) electrodes in all joint positions. Focus is on fillet welds and groove weld joints with backing to prepare students for welding code certification testing. | Prerequisites: A grade of C or better in WLD106AA or permission of Instructor. | | Occ | L+L 5.0 8.0 8.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| WLD106AD | 2020 Fall | SMAW Introduction to Pipe | | Advanced training in shielded metal arc welding (SMAW) with emphasis on pipe welding using E6010 and E7018 electrodes in various pipe joint positions (1G, 2G, 5G, 6G). Focus is on the open root groove pipe weld joints to prepare students for industry code certification. | Prerequisites: A grade of C or better in WLD106AA or permission of Instructor. | | Occ | L+L 5.0 8.0 8.0 | T |
| WLD131 | 1994 Spring | Ferrous Metals | | Use of ferrous metals, specification of ferrous metals, use of identification and study of welding industry standards | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| WLD150 | 2019 Spring | Welding Blueprint Reading | | Analysis and interpretation of technical drawings common to the metal fabrication and construction trades. Welding blueprint symbols. | Prerequisites: None. | | Occ | LEC 3.0 3.0 3.0 | S |
| WLD201 | 2020 Fall | Advanced Welding Concepts | | Further study of electric arc and oxyacetylene welding with emphasis on GTAW (heliarc) and GMAW (mig) processes to weld both ferrous and nonferrous metal. | Prerequisites: A grade of C or better in WLD101. | | | L+L 3.0 6.0 6.0 | T |
| WLD202 | 2021 Fall | Construction Welding III | | Metal arc welding processes, blueprint and weld symbol reading, joint layout preparation and welding procedures, gas-tungsten arc welding with related instruction in practice on ferrous and nonferrous metals | Prerequisites: Permission of Instructor. | Occ | Occ | L+L 3.0 5.0 5.0 | T |
| WLD203 | 2018 Fall | Welding Certification Preparation | | Emphasis on the weld certification process including the Welding Procedure Qualification Record (WPQR), Welder Performance Qualification Test Record (WPQTR), and the Weld Procedure Specification (WPS) in Shielded Metal Arc Welding (SMAW), Gas Tungsten Arc Welding (GTAW), or Gas Metal Arc | Prerequisites: Registered apprentice status or permission of the Apprenticeship Coordinator. | | Occ | L+L 6.0 6.0 6.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Welding (GMAW) welding processes. | | | | | |
| WLD206 | 2018 Fall | Advanced Welding - Heliarc and Wire Feed | | Instruction in theory and practice on tungsten inert gas and wire feed welding. Welding procedures on ferrous and nonferrous metals. Set up and operation of all types of machines used in tig and mig welding | Prerequisites: A grade of C or better in WLD106 or permission of Department or Division. | | | L+L 5.0 8.0 8.0 | T |
| WLD206AA | 2020 Fall | Introduction to GMAW/FCAW and GTAW | | Instruction in theory and practice of gas metal arc welding (GMAW, commonly referred to as MIG), flux cored arc welding (FCAW), and gas tungsten arc welding (GTAW, commonly referred to as TIG). Basic welding procedures on ferrous and nonferrous metals. Setup and operation of welding process equipment. Covers selection of proper filler materials and shielding gas options. | Prerequisites: A grade of C or better required in WLD106AA or permission of Instructor or Corequisites: WLD106AA. | OccOcc | | L+L 5.0 8.0 8.0 | T |
| WLD206AB | 2020 Fall | Advanced GMAW and FCAW | | Instruction and practice of gas metal arc welding (GMAW) and flux cored arc welding (FCAW) in the horizontal, vertical, and overhead positions. Prepare for industry code performance qualification plate tests with both welding processes. | Prerequisites: A grade of C or better in WLD206AA or permission of Instructor. | | Occ | L+L 5.0 8.0 8.0 | T |
| WLD206AC | 2020 Fall | Advanced GTAW Non-Ferrous | | Instruction and practice of gas tungsten arc welding (GTAW) aluminum sheet in the flat, horizontal, and vertical positions. Prepare for industry code performance qualification tests in any welding position. | Prerequisites: A grade of C or better in WLD206AA or permission of Instructor. | | Occ | L+L 5.0 8.0 8.0 | T |
| WLD206AD | 2020 Fall | Advanced GTAW Ferrous | | Instruction and practice of gas tungsten arc welding (GTAW) carbon and stainless-steel in any position. Prepare for industry code performance | Prerequisites: A grade of C or better in WLD206AA or permission of Instructor. | | Occ | L+L 5.0 8.0 8.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | qualification tests in any welding position. | | | | | |
| WLD208 | 2018 Fall | Advanced Arc Welding - Certification | | Advanced metallic arc welding emphasizing out-of-position welding in preparation for certification. Includes various test methods. Provides training on machine flame cutting and gouging and arc air cutting and gouging | Prerequisites: A grade of C or better in WLD106 or permission of Instructor. | | Occ | L+L 5.0 8.0 8.0 | T |
| WLD208AA | 2020 Fall | SMAW Code Welding | | Advanced training in shielded metal arc welding (SMAW) to achieve successful welder performance qualification testing in any position. Focus is on single v-groove weld joints per industry codes and specification requirements. | Prerequisites: A grade of C or better in WLD106AA or permission of Instructor. | | Occ | L+L 5.0 8.0 8.0 | T |
| WLD208AB | 2020 Fall | GMAW Code Welding | | Advanced training in gas metal arc welding (GMAW) with emphasis on achieving successful welder performance qualification testing in any position. Focus is on groove weld joints per industry codes. | Prerequisites: A grade of C or better in WLD206AA or permission of Instructor. | | Occ | L+L 5.0 8.0 8.0 | T |
| WLD208AC | 2020 Fall | FCAW Code Welding | | Advanced training in flux cored arc welding (FCAW) with emphasis on achieving successful welder performance qualification testing in any position. Focus is on groove weld joints per industry codes. | Prerequisites: A grade of C or better in WLD206AA or permission of Instructor. | | Occ | L+L 5.0 8.0 8.0 | T |
| WLD208AD | 2020 Fall | SMAW Code Welding Pipe | | Advanced training in pipe welding using either shielded metal arc welding (SMAW), gas metal arc welding (GMAW), or flux cored arc welding (FCAW) with emphasis on achieving successful welder performance qualification testing in any position. Focus is on groove weld joints per industry codes. | Prerequisites: A grade of C or better in WLD106AD or WLD208AA, or permission of Instructor. | | Occ | L+L 5.0 8.0 8.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| WLD214 | 2018 Fall | American Welding Society Certification Preparation | | Principles and techniques of electric arc welding and American Welding Society (AWS) certification requirements, certification pretest and preparation. Technical theory and skill training in all position welding processes. | Prerequisites: A grade of C or better in (WLD101 and registered apprenticeship status) or permission of the Apprenticeship Coordinator. | | Occ | L+L 2.0 2.0 2.0 | T |
| WLD215 | 2023 Spring | Welding Fabrication | | Introduction to layout, basic welding, and fabrication. Introduction to the basic skills of measuring, equipment setup and cutting, shaping, grinding, welding, filing, and heating and bending of metal parts. | Prerequisites: WLD101, or WLD106++, or WLD206++, or Apprentice status, or permission of the Apprenticeship Coordinator. | | Occ | L+L 3.0 6.0 6.0 | T |
| WLD215AA | 2021 Fall | Weld Fabrication I for Millwrighting | | Layout, fabrication and basic skills of measuring, cutting, shaping, grinding, drilling and tapping, welding, filing, shimming, heating and bending of metal parts. Safe and proper use of all necessary hand and power tools. | Prerequisites: Permission of the Apprenticeship Coordinator. | | Occ | L+L 2.0 2.0 2.0 | T |
| WLD215AB | 2018 Fall | Weld Fabrication II for Millwrighting | | Welding layout and fabrication. Advanced skills in measuring, cutting, shaping, grinding, drilling and tapping, welding, filing, shimming, heating and bending of metal parts. Safe and proper use of all necessary hand and power tools. | Prerequisites: A grade of C or better in (WLD215AA and registered apprenticeship status) or permission of the Apprenticeship Coordinator. | | Occ | L+L 2.0 2.0 2.0 | T |
| WLD225 | 2017 Spring | Welding Inspection and Quality Control | | Welding inspection and quality control standards and practices in the construction and fabrication industries. Welding inspector certification requirements and functions performed in industry. | Prerequisites: A grade of C or better in WLD106++ or permission of Instructor. | | Occ | LEC 3.0 3.0 3.0 | S |
| WLD296WA | 2002 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 | | | LAB 1.0 5.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | related to the career objectives of the students. COMMON COMPETENCY COURSE | grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor. | | | | |
| WLD296WB | 2002 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor. | | Occ | LAB 2.0 10.0 0.0 | Z |
| WLD296WC | 2002 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one | Occ | | LAB 3.0 15.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | class which is related to students major or career interest or with permission of Instructor. | | | | |
| WLD296WD | 2002 Fall | Cooperative Education | | Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. COMMON COMPETENCY COURSE | Prerequisites: Completion of at least twelve (12) college credits minimum 2.6 grade point average and be able to obtain a position related to students academic or career goals (students present job may qualify or permission of instructor Corequisites: Must be concurrently enrolled in at least one class which is related to students major or career interest or with permission of Instructor. | | Occ | LAB 4.0 20.0 0.0 | Z |
| WLD298AA | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | Prerequisites: Permission of Program Director or Instructor. | | Occ | LAB 1.0 1.0 0.0 | Z |
| WLD298AB | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type | Prerequisites: Permission of Program Director or Instructor. | | Occ | LAB 2.0 2.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | | | | | |
| WLD298AC | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | Prerequisites: Permission of Program Director or Instructor. | | Occ | LAB 3.0 3.0 0.0 | Z |
| WRT100 | 2020 Fall | Introduction to Water Resources | | Fundamental principles of water resources. Basic concepts and strategies in the study of water, the current focus on water pollution and water purification. Topics include ground water, surface water, water quality, water purification, and water pollution. Presentation of ongoing studies related to work of earth scientists. | Prerequisites: Admission to the Water Resources Technology program and placement into MAT120, MAT121, MAT122, MAT150, MAT151, MAT152, or higher-level mathematics course for which College Algebra is a prerequisite or permission of the Program Director. | | | LEC 3.0 3.0 3.0 | S |
| WRT102 | 2017 Spring | Water Resources Computations and Data Analysis | | Fundamentals of water resources technology formulas for real-world problems. Discussion of best practices in water resources given the results of the calculations. | Prerequisites: Math assessment score on District placement exam placing students into MAT090 or MAT091 or MAT092 or higher level mathematics course. | Occ | | LEC 3.0 3.0 3.0 | S |
| WRT108 | 2020 Fall | Fundamentals of Environmental Science Technology | | This course provides fundamental concepts and | Prerequisites: Admission into the | | | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | problem-solving methods that address environmental conditions, pollution monitoring and prevention, and approaches for protecting air, land and water using technology. | Water Resources Technology program. Corequisites: WRT100 or permission of Program Director. | | | | |
| WRT110 | 2020 Fall | Principles of Water Treatment Plant Operations | | Principles in the safe and effective operation and maintenance of drinking water treatment plants, reservoir management and intake structuring. The source of water, basic water laboratory test procedures and calculations also covered. | A grade of C or better required in all Prerequisites. Prerequisites: Admission to the Water Resources Technology program. Prerequisites or Corequisites: WRT100 or permission of Program Director. | | Occ | LEC 3.0 3.0 3.0 | S |
| WRT115 | 2020 Fall | Water Technology Calculations | | Application of water technology formulas for operation and maintenance of water/wastewater plants and distribution and collections systems. Includes operator examination preparation and discussion of best practices in water technologies given the results of the calculations. | A grade of C or better required in all Prerequisites. Prerequisites: Admission to the Water Resources Technology program. Prerequisites or Corequisites: WRT100 or permission of Program Director. | | Occ | LEC 3.0 3.0 3.0 | S |
| WRT117 | 2020 Fall | Geographic Information Systems (GIS) | | Purpose and applications of desktop Geographic Information Systems (GIS) technology applied to water resources and planning. ArcView software program applications and data management. Includes data query and spatial data functions. Analysis of spatial relationships and presentation of spatial information. | Prerequisites: Admission into the Water Resources Technology program and (a grade of C or better in BPC110, or CIS105, or permission of Program Director). | | Occ | LEC 3.0 3.0 3.0 | S |
| WRT121 | 2020 Fall | Operation of Wastewater Treatment Plants | | Safe and effective operation and maintenance of wastewater treatment plants. Overview of treatment processes and laboratory testing used in wastewater treatment plants. Principles | A grade of C or better required in all Prerequisites. Prerequisites: Admission to the Water Resources Technology program. Prerequisites | | | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | and processes involved in waste treatment ponds, disinfection and chlorination process. | or Corequisites: WRT100 or permission of Program Director. | | | | |
| WRT125 | 2020 Fall | Surveying for Water Resources | | Fundamental surveying principles utilized in water field studies. Level and transit, horizontal measurement by tape or stadia. Benchmark and profile leveling traverse surveys and computations and establishment of line and grade. | Prerequisites: Admission into the Water Resources Technology program and (a grade of C or better in WRT100 or permission of Program Director). | | Occ | LEC 2.0 2.0 2.0 | S |
| WRT130 | 2020 Fall | Groundwater Hydrology | | Fundamentals of groundwater resources. Includes basic flow equations, well hydraulics, groundwater fluctuations, artificial recharge and basic-data collection techniques. Emphasis on the use of data in analysis of local and regional flow systems. | Prerequisites: Admission into the Water Resources Technology program and (a grade of C or better in WRT100 or permission of Program Director). | | Occ | LEC 3.0 3.0 3.0 | S |
| WRT130LL | 2018 Fall | Groundwater Field Techniques | | Field exercises to acquire groundwater data and service data-gathering equipment. Safety procedures stressed. | Prerequisites: A grade of C or better in WRT130 or Corequisites: WRT130 or permission of Department or Division. | | | LAB 1.0 3.0 3.0 | T |
| WRT131 | 2020 Fall | Wastewater Collection Systems Operation and Maintenance | | Overview of wastewater collection systems with an emphasis on inspection and cleaning of sewer systems. Safety considerations, maintenance and underground repair procedures also covered. | Prerequisites: Admission into the Water Resources Technology program and (a grade of C or better in WRT100 and WRT115, or permission of Program Director). | Occ | | LEC 3.0 3.0 3.0 | S |
| WRT134 | 2020 Fall | Water Distribution System Operation and Maintenance | | Safe and effective operation and maintenance of water distribution systems. Water contaminants, disinfection and chlorination in addition to development of a plant safety plan. | Prerequisites: Admission into the Water Resources Technology program and (a grade of C or better in WRT100 and WRT115, or permission of Program Director). | Occ | | LEC 3.0 3.0 3.0 | S |
| WRT140 | 2020 Fall | Water Quality for Treatment Industry | | Introduction to water quality including common parameters | Prerequisites: Admission to the Water | | | LEC 5.0 3.0 3.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | in the treatment industry, regulations, and types and methods of monitoring. Laboratory safety, sampling and reporting, wet analytical methods, sample analyses, and process chemistry. | Resources Technology program. Prerequisites: A grade of C or better in WRT100 or Corequisites: WRT100 or permission of the Program Director. | | | LAB 0.0 6.0 6.0 | |
| WRT140LL | 2018 Fall | Water Quality for Treatment Industry Laboratory | | Laboratory safety, sampling and reporting; wet analytical methods; sample analyses; process chemistry. | Prerequisites: A grade of C or better in WRT140 or Corequisites: WRT140 or permission of Department or Division. | | | LAB 1.0 3.0 3.0 | T |
| WRT150 | 2020 Fall | Introduction to Surface Water Data Collection | | Fundamentals of surface water data collection while stressing safe practices. Map reading and navigation, field inspections, accessing, collecting, recording and retrieving surface water data. | Prerequisites: Admission into the Water Resources Technology program and (a grade of C or better in WRT100 or permission of Program Director). | Occ | | LEC 3.0 3.0 3.0 | S |
| WRT150LL | 2018 Fall | Introduction to Surface Water Data Collection Field Techniques | | Hands-on experience in surface water data collection while stressing safe practices. Map reading and navigation, field inspections, accessing, collecting, and recording surface water data. | Prerequisites: A grade of C or better in WRT150 or Corequisites: WRT150 or permission of Department or Division. | Occ | | L+L 2.0 3.0 3.0 | T |
| WRT152 | 2020 Fall | Water Resources Field Investigations I: Groundwater and Surface Water | | Hands-on experience and field exercises to acquire surface water and groundwater data and service data-gathering equipment. Hands-on experience in surface water data collection while stressing safe practices. Map reading and navigation, field inspections, accessing, collecting, and recording surface water and groundwater data. Safety procedures stressed. | A grade of C or better required in all Prerequisites. Prerequisites: Admission to the Water Resources Technology program. Prerequisites or Corequisites: WRT130 and WRT150, or permission of Program Director. | Occ | Occ | L+L 3.0 6.0 6.0 | T |
| WRT153 | 2020 Fall | Environmental Law and Regulations | | Introduction to various environmental laws and fundamentals of environmental laws relating to | Prerequisites: Admission into the Water Resources Technology program | | | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | federal, state, and local levels. Overview and application of the permitting processes related to drinking and wastewater designed to provide a better sense of real-world issues from a regulator and regulated standpoint. | and (a grade of C or better in WRT108 or permission of Program Director). | | | | |
| WRT180 | 2020 Fall | Environmental Sampling and Analysis | | Introduction to the theory and methodology of sampling and analysis of environmentally significant parameters in water, wastewater, hazardous waste, soil, sediment, and air. | Prerequisites: Admission into the Water Resources Technology program and (a grade of C or better in WRT100 and WRT108, or permission of Program Director). | | | LEC 5.0 3.0 3.0 LAB 0.0 6.0 6.0 | T |
| WRT190AA | 2017 Spring | Water Resources Technologies Seminar | | Interaction with other students and professionals in the water resources technologies industry. Stress placed on sharing knowledge and demonstrating understanding through discussion of current issues in the industry, operational tasks, and emerging issues. | Prerequisites: None. | Occ | Occ | LEC 1.0 1.0 1.0 | S |
| WRT200 | 2020 Fall | Industrial Pretreatment | | Principles of industrial pretreatment programs. Overview of industrial facilities inspections and pollution prevention strategies. Sampling techniques of industrial wastewaters. Field exercises to acquire industrial wastewater quality data and industrial discharge flow measurements. Quality Assurance/Quality Control (QA/QC), and data processing techniques included. Safety procedures stressed. | A grade of C or better required in all Prerequisites. Prerequisites: Admission to the Water Resources Technology program. Prerequisites or Corequisites: WRT100 or permission of Program Director. | | Occ | LEC 3.0 3.0 3.0 | S |
| WRT204 | 2020 Fall | Water/Wastewater Mechanical Systems, Power, and Instrumentation | | Maintenance of facilities and equipment in both water and wastewater systems. Principles of basic electricity, electrical circuits, motors, | Prerequisites: Admission to the Water Resources Technology program and permission of the Program Director. | | Occ | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | transformers, and process control instrumentation. | | | | | |
| WRT205 | 2014 Spring | Power and Instrumentation | | Principles of basic electricity, electrical circuits, motors, transformers, and process control instrumentation. | Prerequisites: A grade of C or better in WRT110 or WRT121 or WRT131 or WRT134. | | Occ | LEC 3.0 3.0 3.0 | S |
| WRT207 | 2021 Spring | Groundwater Production and Management | | Basic hydrology and hydrogeology; construction of water wells from site selection and specifications through drilling, design, development, testing, and equipping; rehabilitation of existing wells, Arizona Groundwater Management Law of 1980; water quality; common operational problems of well fields; types and purposes of monitoring wells. | Prerequisites: A grade of C or better in WRT100 or permission of Program Director. | | Occ | LEC 3.0 3.0 3.0 | S |
| WRT221 | 2020 Fall | Water and Wastewater Treatment Plants Administration | | Administration safety and maintenance of a water and wastewater treatment plants. Handling and disposal of process wastes and instrumentation use. Emphasis on reporting data in reports, graphs, and record keeping. | A grade of C or better required in all Prerequisites. Prerequisites: Admission to the Water Resources Technology program. Prerequisites or Corequisites: WRT110 or WRT121 or permission of Program Director. | | | LEC 3.0 3.0 3.0 | S |
| WRT240 | 2014 Spring | Water Quality | | Fundamental chemical and physical factors involved in evaluating water quality. Water quality deterioration from land fills, underground storage tanks, and hazardous waste. Sampling techniques of groundwater, soil, and surface water. Quality assurance, quality control, and data processing techniques included. | Prerequisites: A grade of C or better in WRT140, or permission of Department or Division. | Occ | | LEC 3.0 3.0 3.0 | S |
| WRT240LL | 2018 Fall | Water Quality Field Techniques | | Field exercises to acquire water quality data and service data gathering equipment. Safety procedures stressed. | Prerequisites: A grade of C or better in WRT240 or Corequisites: WRT240 | Occ | | LAB 1.0 3.0 3.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | or permission of Department or Division. | | | | |
| WRT252 | 2020 Fall | Water Resources Field Investigations II: Surveying and Surface Water | | Field reconnaissance of water resources. Lab experiences in surveying techniques and procedures. Field exercises to acquire surface water data and develop hydrologic models. Safety procedures stressed. | Prerequisites: Admission into the Water Resources Technology program and (a grade of C or better in WRT152 or permission of Program Director). | | | L+L 3.0 6.0 6.0 | T |
| WRT270AA | 2017 Spring | Water Resources Internship | | Water resources work experience in business, industry, or government. Eighty (80) hours of designated work per credit. | Prerequisites: Permission of Department or Division. | | | LAB 1.0 6.0 0.0 | C |
| WRT270AB | 2017 Spring | Water Resources Internship | | Water resources work experience in business, industry, or government. Eighty (80) hours of designated work per credit [total of one hundred sixty (160) hours]. | Prerequisites: Permission of Department or Division. | Occ | | LAB 2.0 12.0 0.0 | C |
| WRT270AC | 2017 Spring | Water Resources Internship | | Water resources work experience in business, industry, or government. Eighty (80) hours of designated work per credit [total of two hundred forty (240) hours]. | Prerequisites: Permission of Department or Division. | Occ<br>Occ | | LAB 3.0 18.0 0.0 | C |
| WRT298AA | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | Prerequisites: Permission of Program Director or Instructor. | Occ | Occ | LAB 1.0 1.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| WRT298AB | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | Prerequisites: Permission of Program Director or Instructor. | | Occ | LAB 2.0 2.0 0.0 | Z |
| WRT298AC | 2005 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. COMMON COMPETENCY COURSE | Prerequisites: Permission of Program Director or Instructor. | | Occ | LAB 3.0 3.0 0.0 | Z |
| WST100 | 2011 Fall | Introduction to Women's and Gender Studies | | Introduction to critical issues in women's studies. | Prerequisites: None. | Course Attribute(s): General Education Designation: Cultural Diversity - [C] General Education Designation: Social and Behavioral Sciences - [SB] | Acad | LEC 3.0 3.0 3.0 | S |
| WST105 | 2024 Fall | Women of Color in the Americas | | Interdisciplinary, multi-perspective, and comparative study of the experiences of Women of Color in the Americas and their impact on the arts, literature, social structures and political movements. Examines how the intersection of race, class, | Prerequisites: None. | | Acad | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | gender, and sexuality has shaped their lived experiences and legacy. | | | | | |
| WST120 | 2007 Fall | Gender, Class and Race | | A feminist discussion of gender, class and race as basic and central social categories that determine how we see ourselves and others and how they circumscribe our opportunities and privileges in American society. | Prerequisites: None. | Course Attribute(s): General Education Designation: Cultural Diversity - [C] | Acad | LEC 3.0 3.0 3.0 | S |
| WST128 | 2023 Fall | Law and Violence Against Women | | Covers cases and materials on systems of oppression particularly as related to women in our society. Areas covered include battering, sexual harassment, sexual assault, prostitution, and pornography as exemplified in present-day society. Designed to give students the ability to identify problems of violence against women and participate in current societal discourse on various ways to resolve them. | Prerequisites: None. | | Acad | LEC 3.0 3.0 3.0 | S |
| WST160 | 2015 Summer | Women and the Early American Experience | | Introduction to American women's history, from the colonial period to suffrage in 1920, based on a feminist perspective. | Prerequisites: None. | Course Attribute(s): General Education Designation: Historical Awareness - [H] | Acad | LEC 3.0 3.0 3.0 | S |
| WST161 | 2003 Spring | American Women Since 1920 | | Continuation of the history of women in America from 1920 to the present, based on a feminist perspective. Includes discussion of the roles and status of immigrant and ethnic minority women | Prerequisites: None. | Course Attribute(s): General Education Designation: Cultural Diversity - [C] General Education Designation: Historical Awareness - [H] General Education Designation: Social and Behavioral Sciences - [SB] | Acad | LEC 3.0 3.0 3.0 | S |
| WST200 | 2009 Spring | Essential Feminist Writing | | Literary tracing of feminism from 18th century to present. Explores major issues related to women in the 20th century | Prerequisites: A grade of C or better in ENG101 or permission of Instructor. | General Education Designation: General Education Designation: Historical Awareness - [H] | Acad | LEC 3.0 3.0 3.0 | S |
| WST206 | 2008 Fall | La Mujer | | Analysis and discussion of critical issues for Latinas in America today | Prerequisites: None. | | Acad | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| WST207 | 2008 Fall | Black Women | AFR207 | Analysis and discussion of critical issues for Black women in America today | Prerequisites: None. | | Acad | LEC 3.0 3.0 3.0 | S |
| WST209 | 2018 Spring | Women and Films | HUM209 | Analysis of images of women in films from both historical and contemporary perspectives | Prerequisites: None. | Course Attribute(s): General Education Designation: Cultural Diversity - [C] General Education Designation: Humanities, Arts and Design - [HU] | Acad | LEC 3.0 3.0 3.0 | S |
| WST244 | 2010 Spring | Women in Muslim Societies | | Overview of Muslim women's religious and secular roles and rights. Relationship of the Qur'an and Hadiths' teachings on women to the interpretations of those teachings within the variegated cultural contexts of Islam | Prerequisites: None. | | Acad | LEC 3.0 3.0 3.0 | S |
| WST261 | 2024 Fall | Indigenous Women's Literature of the Americas | AIS/ENH261 | Explores contemporary voices of Indigenous women authors and artists in the Americas as expressed in poetry, fiction, nonfiction, drama, and oral traditions. Focuses on themes relevant to Indigenous women and examines the trends and movements within Indigenous peoples and women's literary history. Examines themes relevant to Indigenous women such as racial and gender oppression, reservation life, acculturation, and their sociopolitical activism in the Americas. | Prerequisites: A grade of C or better in ENG101 or ENG107. | | Acad | LEC 3.0 3.0 3.0 | S |
| WST282AA | 2003 Summer I | Volunteerism for Women's Studies: A Service Learning Experience | | Service learning field experience within private/public agencies and citizen volunteer groups. Students will develop writing skills, analysis, and synthesis in an on-site volunteer experience. | Prerequisites: A grade of C or better in WST100 and permission of Instructor. | WST282AA may be repeated for a total of six (6) WST282 credit hours. Standard grading available according to procedures outlined in catalog. | Acad | LAB 1.0 1.0 0.0 | L |
| WST282AB | 2003 Summer I | Volunteerism for Women's Studies: A Service Learning Experience | | Service learning field experience within private/public agencies and | Prerequisites: A grade of C or better in | WST282AB may be repeated for a total of six (6) WST282 credit hours. Standard grading | Acad | LAB 2.0 2.0 0.0 | L |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | citizen volunteer groups. Students will develop writing skills, analysis, and synthesis in an on-site volunteer experience. | WST100 and permission of Instructor. | available according to procedures outlined in catalog. | | | |
| WST282AC | 2003 Summer I | Volunteerism for Women's Studies: A Service Learning Experience | | Service learning field experience within private/public agencies and citizen volunteer groups. Students will develop writing skills, analysis, and synthesis in an on-site volunteer experience. | Prerequisites: A grade of C or better in WST100 and permission of Instructor. | WST282AC may be repeated for a total of six (6) WST282 credit hours. Standard grading available according to procedures outlined in catalog. | Acad | LAB 3.0 3.0 0.0 | L |
| WST284 | 1995 Fall | 19th Century Women Writers | ENH284 | Investigates major themes in literature by women writing in the 19th century including the nature of women's lives in the family, in work situations, and in society. Poetry, prose, essays and drama are examined with an emphasis on common themes | Prerequisites: None. | Course Attribute(s): General Education Designation: Cultural Diversity - [C] General Education Designation: Humanities, Arts and Design - [HU] | Acad | LEC 3.0 3.0 3.0 | S |
| WST285 | 1995 Fall | Contemporary Women Writers | ENH285 | Explores twentieth century literature (short stories, essays, plays, and poetry) written by women and about women. Focus on themes relevant to women's lives regardless of age, creed, or ethnic background | Prerequisites: None. | Course Attribute(s): General Education Designation: Cultural Diversity - [C] General Education Designation: Humanities, Arts and Design - [HU] | Acad | LEC 3.0 3.0 3.0 | S |
| WST286 | 2023 Fall | Women and Health: Body/Mind/Spirit/Connection | | Economic, sociopolitical, and demographic factors affecting women's health. Methods for optimizing physical, emotional, and spiritual health. Specific health concerns of women throughout the lifespan. Activism for health promotion | Prerequisites: None. | | Acad | LEC 3.0 3.0 3.0 | S |
| WST290 | 2012 Spring | Women and World Religions | REL290 | Focus on the role of women in several organized religions and/or religious sects. Study of myth and symbols as they are used to establish, maintain, and enforce sex-roles within specific cultural contexts around the world. | Prerequisites: None. | Course Attribute(s): General Education Designation: Global Awareness - [G] General Education Designation: Humanities, Arts and Design - [HU] | Acad | LEC 3.0 3.0 3.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| WST292 | 2012 Summer I | Goddess Religions | REL292 | Introduction to Goddess religions from pre-historic to modern times. Focuses on ancient origins, myths and practices of religions with female deities, their historical replacement by male religious deities, and their modern re-emergence in neo-Goddess movements. | Prerequisites: None. | | Acad | LEC 3.0 3.0 3.0 | S |
| WST295 | 2024 Fall | Women's Studies Seminar | | Special topics in women, gender, and sexuality studies with an emphasis on current issues not covered in other Women's Studies (WST) courses. | Prerequisites: None. | WST295 may be repeated for a total of six (6) credit hours. | Acad | LEC 1.0 1.0 1.0 | S |
| WST298AA | 2023 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. | Prerequisites: Permission of Program Director or Instructor. | | Acad | LAB 1.0 1.0 0.0 | Z |
| WST298AB | 2023 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. | Prerequisites: Permission of Program Director or Instructor. | | Acad | LAB 2.0 2.0 0.0 | Z |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| WST298AC | 2023 Fall | Special Projects | | Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. | Prerequisites: Permission of Program Director or Instructor. | | Acad | LAB 3.0 3.0 0.0 | Z |
| WTO106AA | 2023 Fall | Introduction to SMAW | | Introduction to arc welding with emphasis in Shielded Metal Arc Welding (SMAW). Designed to provide the knowledge and skills needed to cut and prepare weld joints utilizing current technology. Develops hands-on skills through sequenced lab experiences. | Prerequisites: None. | | CLK | 180 | |
| WTO106AB | 2023 Fall | SMAW 6010 Plate | | Continued training in shielded metal arc welding with emphasis on using E6010 (fast-freeze) electrodes in all joint positions. Focus is on fillet welds for structural steel and open root groove weld joints. | Prerequisites: A grade of C or better in WTO106AA or permission of Instructor. | | CLK | 180 | |
| WTO106AC | 2023 Fall | SMAW 7018 Plate | | Continued training in shielded metal arc welding with emphasis on using E7018 (low hydrogen) electrodes in all joint positions. Focus is on fillet welds and groove weld joints with backing to prepare students for welding code certification testing. | Prerequisites: A grade of C or better in WTO106AA or permission of Instructor. | | CLK | 180 | |
| WTO106AD | 2023 Fall | SMAW Introduction to Pipe | | Advanced training in shielded metal arc welding with emphasis on pipe welding using E6010 and E7018 | Prerequisites: A grade of C or better in WTO106AA or permission of Instructor. | | CLK | 180 | |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | electrodes in various pipe joint positions (1G, 2G, 5G, 6G). Focus is on the open root groove pipe weld joints to prepare students for industry code certification. | | | | | |
| WTO206AA | 2022 Fall | Introduction to GMAW/FCAW and GTAW | | Instruction in theory and practice of gas metal arc welding (GMAW) and gas tungsten arc welding (GTAW), commonly referred to as MIG and TIG. Basic welding procedures on ferrous and nonferrous metals. Setup and operation of welding process equipment. Covers selection of proper filler materials and shielding gas options. | A grade of C or better required in all Prerequisites. Prerequisites or Corequisites: WTO106AA or permission of Instructor. | | CLK | 141 | |
| WTO206AB | 2022 Fall | Advanced GMAW and FCAW | | Instruction and practice of gas metal arc welding (GMAW) and flux cored arc welding (FCAW) in the horizontal, vertical, and overhead positions. Prepare for industry code performance qualification plate tests with both welding processes. | Prerequisites: A grade of C or better in WTO206AA or permission of Instructor. | | CLK | 165 | |
| WTO206AC | 2023 Fall | Advanced GTAW Non-Ferrous | | Instruction and practice of gas tungsten arc welding (GTAW) aluminum sheet in the flat, horizontal, and vertical positions. Prepare for industry code performance qualification tests in any welding position. | Prerequisites: A grade of C or better in WTO206AA or permission of Instructor. | | CLK | 180 | |
| WTO206AD | 2023 Fall | Advanced GTAW Ferrous | | Instruction and practice of gas tungsten arc welding (GTAW) carbon and stainless-steel in any position. Prepare for industry code performance qualification tests in any welding position. | Prerequisites: A grade of C or better in WTO206AA or permission of Instructor. | | CLK | 180 | |
| WTO206DA | 2023 Fall | Introduction to GMAW/FCAW and GTAW | | Instruction in theory and practice of gas metal arc welding (GMAW) and gas tungsten arc welding (GTAW), | A grade of C or better required in all Prerequisites. Prerequisites or | | | 180 | |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | commonly referred to as MIG and TIG. Basic welding procedures on ferrous and nonferrous metals. Setup and operation of welding process equipment. Covers selection of proper filler materials and shielding gas options. | Corequisites: WTO106AA or permission of Instructor. | | | | |
| WTO206DB | 2023 Fall | Advanced GMAW and FCAW | | Instruction and practice of gas metal arc welding (GMAW) and flux cored arc welding (FCAW) in the horizontal, vertical, and overhead positions. Prepare for industry code performance qualification plate tests with both welding processes. | Prerequisites: A grade of C or better in WTO206AA or permission of Instructor. | | CLK | 180 | |
| WTO208AA | 2023 Fall | SMAW Code Welding | | Advanced training in shielded metal arc welding (SMAW) to achieve successful welder performance qualification testing in any position. Focus is on single v-groove weld joints per industry codes and specification requirements. | Prerequisites: A grade of C or better in WTO106AA or permission of Instructor. | | CLK | 180 | |
| WTO208AB | 2022 Fall | GMAW Code Welding | | Advanced training in gas metal arc welding (GMAW) with emphasis on achieving successful welder performance qualification testing in any position. Focus is on groove weld joints per industry codes. | Prerequisites: A grade of C or better in WT0206AA or permission of Instructor. | | CLK | 165 | |
| WTO208AD | 2023 Fall | SMAW Code Welding Pipe | | Advanced training in pipe welding using either shielded metal arc welding (SMAW), gas metal arc welding (GMAW), or flux cored arc welding (FCAW) with emphasis on achieving successful welder performance qualification testing in any position. Focus is on groove weld joints per industry codes. | Prerequisites: A grade of C or better in WTO106AD or WTO208AA or permission of Instructor. | | CLK | 180 | |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| WTO208AE | 2023 Fall | GTAW Code Welding | | Advanced training in welding using gas tungsten arc welding (GTAW) with emphasis on achieving successful welder performance qualification testing in any position. Focus is on groove weld joints per industry codes. | Prerequisites: None. | | CLK | 180 | |
| WTO208DB | 2023 Fall | GMAW Code Welding | | Advanced training in gas metal arc welding (GMAW) with emphasis on achieving successful welder performance qualification testing in any position. Focus is on groove weld joints per industry codes. | Prerequisites: A grade of C or better in WT0206AA or permission of Instructor. | | CLK | 180 | |
| YAQ100 | 2009 Summer I | Yaqui Indian History and Culture | | Surveys Yaqui Indian history and culture from pre-contact to the present. Explores themes of resistance, dispersion, survival, tradition, family, community, belief systems, and identity. Places Yaqui history within the context of Arizona, American Indian, Mexican, and Mexican-American History. Examines historical writing and analysis, life histories, poetry, language, and emphasis on Yaqui experiences in 20th century Arizona. | Prerequisites: None. | Course Attribute(s): General Education Designation: Cultural Diversity - [C] General Education Designation: Social and Behavioral Sciences - [SB] | Acad | LEC 3.0 3.0 3.0 | S |
| YAQ110 | 2000 Spring | Yaqui Language and Culture | | Introduction to the Yaqui language and overview of the traditional culture as a background for language use. Instruction in the grammar and writing system to assist student in speaking, reading, and writing Yaqui | Prerequisites: None. | | Acad | LEC 3.0 3.0 3.0 | S |
| YOG101 | 2023 Fall | Beginning Yoga | | Yoga practice at the beginning level, including poses (asanas), breathing, meditation and relaxation techniques. | Prerequisites: None. | YOG101 may be repeated for credit. | Occ | L+L 1.0 2.0 2.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| YOG101PA | 2023 Fall | Beginning Yoga | | Yoga practice at the beginning level, including poses (asanas), breathing, meditation and relaxation techniques. | Prerequisites: None. | YOG101PA does not meet the requirements for CCL Yoga Instruction Program. YOG101PA may be repeated for credit. | Occ | L+L 0.5 1.0 1.0 | T |
| YOG102 | 2023 Fall | Intermediate Yoga | | Yoga practice at the intermediate level, including poses (asanas), breathing, meditation and relaxation techniques. | Prerequisites: None. Prior experience recommended. | YOG102 may be repeated for credit. | Occ | L+L 1.0 2.0 2.0 | T |
| YOG102PA | 2023 Fall | Intermediate Yoga | | Yoga practice at the intermediate level, including poses (asanas), breathing, meditation and relaxation techniques. | Prerequisites: None. Prior experience recommended. | YOG102PA does not meet requirements for CCL Yoga Instruction Program. YOG102PA may be repeated for credit. | Occ | L+L 0.5 1.0 1.0 | T |
| YOG130 | 2023 Fall | Yoga and the Body | | In-depth study of how the human body functions during yoga both theoretically and practically. Attention given to correct body alignment and mechanics while performing yoga, exploring essential areas of the body individually and analyzing the body as a whole. | Prerequisites: None. YOG101, or YOG102, or YOG201 recommended. | | | L+L 2.0 2.0 2.0 | T |
| YOG150 | 2023 Fall | Tradition and Practice of Yoga I | | Introduction to the art and science of yoga, including terminology, concepts, issues, trends and health benefits. Explores the history and philosophy of yoga and the teaching of yoga as a career. | Prerequisites: None. | Occ | Occ | LEC 2.0 2.0 2.0 | S |
| YOG170 | 2023 Fall | Teaching Yoga: Level I | | Methods of teaching yoga. Studies assessment techniques, establishing course goals, and organizing the classroom. Reviews yoga instruction techniques and how these differ from other movement-based activities; application of anatomical knowledge and practice teaching experiences. | Prerequisites: None. Corequisites: YOG101, or YOG102, or YOG201, or permission of Instructor. | | Occ | L+L 2.0 2.0 2.0 | T |
| YOG171 | 2023 Fall | Teaching Yoga: Level II | | Emphasizes practice teaching experiences. Reviews instructional methods and | Prerequisites: A grade of C or better in YOG170 or permission | | | L+L 2.0 2.0 2.0 | T |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | techniques for assessing student skill levels, organizing the classroom and writing lesson plans. Application of anatomical knowledge to build movement skills, improvement of observational skills and development of an individual teaching style. | of instructor. Corequisites: YOG101, or YOG102, or YOG201, or permission of Instructor. | | | | |
| YOG172 | 2023 Fall | Teaching Yoga: Level III | | Instructional methods for teaching more advanced asanas. Principles of alignment of back bending, inversion, forward bending and arm balancing asanas and techniques for identifying and correcting misalignments. Emphasis on instructional techniques that safely build yoga movement skills while encouraging progression in the practice of challenging asanas. | Prerequisites: A grade of C or better in YOG171 or permission of Instructor. Corequisites: YOG101, or YOG102, or YOG201, or permission of Instructor. | | Occ | L+L 2.0 2.0 2.0 | T |
| YOG201 | 2023 Fall | Advanced Yoga | | Yoga practice at the advanced level, including poses (asanas), breathing, meditation and relaxation techniques. | Prerequisites: A grade of C or better in PED102YO, or PED103YO, or YOG102, or YOG102PA, or permission of Instructor. | YOG201 may be repeated for credit. | Occ | L+L 1.0 2.0 2.0 | T |
| YOG201PA | 2023 Fall | Advanced Yoga | | Yoga practice at the advanced level, including poses (asanas), breathing, meditation and relaxation techniques. | Prerequisites: A grade of C or better in PED102YO, or PED103YO, or YOG102, or YOG102PA, or permission of Instructor. | YOG201PA does not meet requirements for CCL Yoga Instruction Program. YOG201PA may be repeated for credit. | Occ | L+L 0.5 1.0 1.0 | T |
| YOG250 | 2023 Fall | Tradition and Practice of Yoga II | | Examination of the art and science of yoga. Explores the history and philosophy of yoga. In-depth review of significant literature associated with the yoga tradition. Examines cultural aspects of yoga, relevance of | Prerequisites: A grade of C or better in YOG150. | | | LEC 2.0 2.0 2.0 | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | yoga to modern day life and health benefits of yoga. | | | | | |
| YOG274 | 2023 Fall | Teaching Yoga: Practicum | | Guided, practical experience in teaching yoga students. Requires implementation of lesson plans, application of individual teaching techniques and analysis of teaching sessions. | Prerequisites: A grade of C or better in YOG172 or permission of Instructor. | | Occ | L+L 2.0 3.0 3.0 | T |