Course Descriptions



Course Descriptions

Course descriptions list the number of lecture hours for which the class meets each week, e.g. "three lecture" and the number of lab hours of weekly class meeting time, e.g. "three lab." Some classes are divided between lecture time and "lab" time. Thus, a class that is "three lecture, three lab" meets for six hours each week – three hours in a lecture format and three hours in a lab ("hands-on") format. (See Definitions, page 67)

NPC courses that transfer directly to other Arizona public community colleges and three state universities have an additional notation: the Shared Unique Number (SUN). The SUN# symbol appears with those course descriptions. For an explanation of the SUN advantages, see page 63 in this catalog.

To assist students with sequencing to satisfy degree requirements, the semester a course is normally offered is now shown on the description. The course may be offered during other semesters based on student demand. Students should work with their NPC academic advisor to most efficiently reach their educational goals. Course offerings are based on availability of qualified faculty.

DBN = Determined by Need – Your academic advisor can help convey your need for the course to the appropriate dean.

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Administration of Justice Studies (AJS)

AJS 101 • Introduction to Administration of Justice

3 credits

Introduces the history and philosophy of administration of justice in the United States. Includes identifying the various criminal justice systems, agencies, and roles. Covers crime, punishment, rehabilitation, and professional ethics. Three lecture.

AJS 102 • Intensive Police Academy

36 credits

Intensive Police Certification meets the Arizona Peace Officers Standards and Training (AZPOST) curriculum: criminal and traffic investigations, community relations, administration of justice, patrol procedures, report writing, physical conditioning, defensive tactics, weapons proficiency/safety, and first aid. Prerequisite: Sponsorship by Arizona law enforcement agency. 12 lab.

NOTE *If enrolled, student must drop prior to the first day of classes in order to receive 100% refund.

AJS 106 • Public Safety Telecommunication Dispatch

3 credits

Covers basics skills, knowledge, and abilities for public safety telecommunication dispatchers. Aligns with the Association of Public-Safety Communications Officials' (APCO) Public Safety Telecommunicator curriculum. Meets or exceeds the American National Standards Institute's (ANSI) approved minimum training requirements for Public Safety Telecommunicators. Three lecture.

AJS 109 • Substantive Criminal Law

3 credits

Course is a study of the nature, origin, purpose and structure of the American criminal justice system and how it operates. Classification and basic elements of crimes. Constitutional basis and limitations. Defenses and punishments to common crimes. Three lecture.

AJS 110 • Forensic Law Enforcement Phlebotomy

3 credits

Theory and practice of basic phlebotomy for law enforcement officers. Prepares students to obtain forensic blood specimens with venipuncture. Covers phlebotomy protocols, procedures, and techniques along with drawing, preparing, packaging, transporting, documenting, and reporting blood specimens. Prerequisites: HES 170 or EMT 131 and/or permission of Program Director/Program Coordinator. DPS Level I Fingerprint Clearance Card, current health care provider CPR card, current negative TB skin test or negative chest X-ray, hepatitis B series proof of immunity or waiver, MMR and varicella immunization proof of immunity or waiver, be 18 years of age with high school diploma or equivalent, or instructor permission. Two lecture; three lab.

AJS 111 • Internship

1-6 credits

Internship with justice organizations intended to broaden understanding of the justice field, increase career interests, and provide opportunities to apply relevant knowledge including professional skills such as ethics, leadership, and civic responsibility. Repeatable for a maximum of 6 credit hours toward certificate or degree requirements. Prerequisites: AJS 101. Twelve practicum.

AJS 124 • Ethics and the Administration of Justice

3 credits

Introduces ethical and moral concerns related to the legal system. Focuses on ethics and the law, the police, the courts, and corrections. Reviews ethical and philosophical ideas and behaviors in relation to the administration of justice. Promotes critical thinking and ethical decision making in the context of criminal justice. Three lecture.

AJS 130 • Criminal Procedure

3 credits

An overview of criminal procedure including the fourth, fifth, and sixth amendments to the United States Constitution. Particular emphasis given to search and seizure, interrogation, and evidence suppression. Three lecture.

AJS 140 • Introduction to the Paralegal Profession

3 credits

Introduces students to the legal profession and roles and responsibilities of a paralegal. Topics include paralegal regulation and employment, ethical standards, U.S. court structure, legal terminology, legal communication skills, litigation, and specialty areas of law. Three lecture.

AJS 141 • Civil Procedures

3 credits

The study of civil procedures in the federal and state courts. Provides an overview of the litigation process, rules of procedure, format and preparation of legal pleadings, and trial preparation. Three lecture.

AJS 142 • Legal Research

3 credits

Explores the principles and techniques of legal research including categories of research materials, legal citation, finding and using primary and secondary authority, and citators. Covers the research skills necessary for legal research in a law library and legal database. Students learn to analyze research problems, use public information websites, and prepare research reports. Co-requisites: AJS 140 or instructor permission. Three lecture.

AJS 143 • Legal Writing I

3 credits

Introduces the principles and techniques of legal writing, including writing style, editing and proofreading, legal analysis, legal brief types, and applications of legal writing. Students analyze and apply these principles to produce documents commonly used in law practice. Co-requisites: AJS 140 or instructor permission. Three lecture.

AJS 212 • Juvenile Justice Procedures

3 credits

Examines the role of juvenile delinquency in the criminal system in America. Topics covered include the history of the juvenile justice system, jurisdictions, terminology, and procedures. Three lecture.

AJS 225 • Criminology

3 credits

Course explores theories of criminality and the economic, social, and psychological impact of crime and crime trends. Includes: victimization, the relationships between statistics and crime trends, the study of deviant behavior, and the role of society in defining deviant behavior. Three lecture.

AJS 230 • The Police Function

3 credits

Examines the ideas, practices, and operating principles of the police profession with a focus on discretionary authority, the role of the police, and the interactions between the police and the community. Explores crime prevention, career options, and important law enforcement issues and trends. Three lecture.

AJS 240 • The Correctional Function

3 credits

Philosophy and history of the correctional process and a study of the sub-systems of institutions, diversion, sanctions, probation, and parole operations. Responsibilities of correctional staff, behavior modification through supervisory control methods, and rehabilitation objectives as they relate to certain inmates and cultural groups in prison. Three lecture.

AJS 260 • Criminal Procedure

3 credits

An overview of criminal procedure including the fourth, fifth, and sixth amendments to the United States Constitution. Particular emphasis is given to search and seizure, interrogation, and evidence suppression. Three lecture.

AJS 270 • Community Policing

3 credits

Covers the essentials of community policing. Topics include community action programs, coping methods for crisis situations, ethnic and cultural diversity, victimology, crime prevention, and community police operations. Three lecture.

AJS 275 • Criminal Investigation

3 credits

Study of criminal investigation theory. Examines crime scene procedures, evidence collection and preservation, preparation of case files, development of information sources, interviewing and basic investigative techniques. Three lecture.

Anthropology (ANT)

ANT 102 • Cultural Anthropology

3 credits

Introduction to culture and language. Includes variations in subsistence strategies, social organization, religion, and disease theory systems. Patterns of culture change and the modern world system. Prerequisite: Satisfactory placement. Three lecture.

ANT 103 • Culture in Communication

3 credits

Introductory survey of linguistic anthropology and human communication focusing on general species-specific human communications as well as uniquely and culturally crafted expressions. Prerequisite: Satisfactory Placement (sentence skills - low range; reading - middle range). Three lecture.

ANT 104 • Biological Anthropology and Human Origins

4 credits

Study of human evolution and variation, including fossil hominids and their tools, primate anatomy and behavior, human genetics and the environment. Prerequisite: Satisfactory placement. Three lecture; three lab.

ANT 120 • Buried Cities and Lost Tribes

3 credits

Examines human history through archaeology. Emphasizes how archaeological inquiry informs our understanding of the change among human societies including the emergence of modern humans, transitions from hunting and gathering lifeways to agriculture and urban life, the development of stratified states and the significance of archaeology in the contemporary world system. Prerequisite: Satisfactory placement. Three lecture.

ANT 205 • Native American Cultures of the Southwest

3 credits

A survey of the cultures of Native Americans of the Southwestern United States and Northern Mexico. Prerequisite: Satisfactory placement. Three lecture.

ANT 210 • Southwestern Archaeology

3 credits

Past societies of the Greater Southwest and their relation to present societies. Prerequisite: Satisfactory placement or instructor permission. Three lecture.

Art (ART)

ART 101 • Understanding Art

3 credits

Understanding, enjoyment and relationship of the visual arts to everyday life through the study of styles, techniques and meaning in painting, sculpture and architecture. Broad historical overview of art from prehistoric through contemporary. Prerequisite: Satisfactory placement. Three lecture.

ART 103 • Basic Design

3 credits SUN# ART 1112

Overview of basic two-dimensional art and design. Basic art elements are introduced; composition, line, shape, value, color theory, and texture. Basic tools and materials are used on two-dimensional projects. Two lecture; two lab.

ART 105 • Beginning Drawing I

3 credits SUN# ART 1111

Introduction to the fundamentals of drawing, including perspective and basics of composition using a variety of techniques and media (pencil, charcoal, pen, and ink.) Subject matter includes still life, landscape, and the human figure. Two lecture; two lab.

ART 110 • Figure Drawing I

3 credits

Development of skill and expressiveness in drawing the human figure from the model. Human anatomical proportions will be introduced. Prerequisite: ART 105 is recommended. Two lecture; two lab.

ART 115 • Art History I

3 credits SUN# ART 1101

Historical survey of painting, sculpture and architecture of the world from Prehistoric through Middle Ages art. Prerequisite: Satisfactory placement. Three lecture.

ART 116 • Art History II

3 credits SUN# ART 1102

Historical survey of painting, sculpture and architecture of the world from the Renaissance through modern times. Prerequisite: Satisfactory placement. Three lecture.

ART 121 • Digital Photography I

3 credits

An introduction to digital black and white photography. Emphasizes basic manual functions of a digital camera. Focuses on proper exposure, composition and understanding digital workflow. Encourages students to develop a personal artistic style through classroom critique. Two lecture; two lab.

ART 151 • Three Dimensional Design

3 credits

Explores the fundamental design principles involved in organizing three-dimensional space. Emphasizes concept development and three-dimensional composition through an investigation of various materials. Two lecture; two lab.

ART 155 • Printmaking

3 credits

Overview of methods of reproducing multiple editions of images. Types of prints covered are monoprints, paper and cardboard prints, linoleum or woodcut prints, silk screen prints, experimental prints, etched or engraved prints, and lithographs. Emphasis on individual creative expression. Prerequisite: ART 105 is recommended. Two lecture; two lab.

ART 170 • Sculpture I

3 credits

Introduction to materials and techniques utilized in producing three-dimensional forms. Various materials will be introduced (wood, clay, metal, plaster) and creative exploration is encouraged. Two lecture; two lab.

ART 175 • Painting I

3 credits

Introduction course into materials and techniques of painting in acrylic and/or oil. Also covers canvas stretching and priming. Prerequisite: ART 105 is recommended. Two lecture; two lab.

ART 180 • Watercolor I

3 credits

Introduction to materials and techniques for painting in watercolor. Covers painting development from start to finish. Prerequisite: ART 105 is recommended. Two lecture; two lab.

ART 185 • Handbuilding Pottery

3 credits

Exploration of the nature and techniques of clay using the four basic methods: forming from the solid, using small building units, large building units and paddling. Emphasis will be not only on learning technique but encouraging students to develop their own techniques and style. Two lecture; two lab.

ART 190 • Ceramics I

3 credits

Hand building techniques of clay (pinch, coil, slab), properties of clay, throwing on the wheel, decorating, glaze application and creative exploration are covered. Two lecture; two lab.

ART 230 • Colored Pencil Workshop

3 credits

Explores colored pencil techniques as a medium for artistic expression. Students learn various techniques, including layering, blending, burnishing, and mixing colors. Emphasizes developing individual creativity and personal style through experimentation and guided practice. Prerequisite: ART 103 or ART 105 or instructor permission. Two lecture; two lab.

ART 205 • Drawing II

3 credits

Continued study in drawing. Emphasizes composition, experimentation with new techniques, materials, and personal creative expression. Prerequisite: ART 105. Two lecture; two lab.

ART 206 • Figure Drawing II

3 credits

Continued study in drawing the human form with emphasis on management of materials and creativity. Prerequisite: ART 110. Two lecture; two lab.

ART 215 • Native American Art

3 credits

Intended to provide students with an introduction and selective overview of art of the native peoples of North America. Focus is on significant two- and three-dimensional art as well as

installation art before and after establishment of formal art institutions. Prerequisite: Satisfactory placement. Three lecture.

ART 220 • Painting II

3 credits

Continued study of painting that encourages exploring various artistic directions. Canvas stretching and priming are also covered. Prerequisite: ART 175. Two lecture; two lab.

ART 221 • Digital Photography II

3 credits

An introduction to digital color photography. Focuses on correcting and manipulating digital color images. Emphasizes creative use of color to achieve emotional impact. Continued development of personal artistic style through class critique. Prerequisite: ART 121 or instructor permission. Two lecture; two lab.

ART 222 • Digital Photography Practicum

2 credits

Enhancement of photographic skills through the creation of a portfolio of artworks. Development of personalized, self-directed goals and photographic projects. Digital camera is required. Prerequisite: ART 221 or instructor permission. One lecture; two lab.

ART 225 • Watercolor II

3 credits

Continued study of watercolor. Covers painting development from start to finish with encouragement of personal creative direction. Prerequisite: ART 180. Two lecture; two lab.

ART 245 • Ceramics II

3 credits

Emphasizes increasing skill in forming methods. Types of clay, glaze composition and experimentation, and kilns and kiln firing are investigated. Prerequisite: ART 190. Two lecture; two lab.

ART 246 • Ceramics III

3 credits

Advanced problem-solving and investigation with emphasis on individual creative development and personal expression in ceramics. Prerequisite: ART 245. Two lecture; two lab.

ART 251 • Photography as an Art Medium

3 credits

Survey of significant trends, philosophies and experimentation in photography from 1839 to the present. Non-technical in nature and is designed for the photography or non-photography student. Three lecture.

ART 280 • Art Studio – Two-Dimensional

3 credits

Continuation of investigation, advanced problem-solving and personal creative development in area of two-dimensional specialization. Course may be repeated. Prerequisite: Minimum of six hours in a specific two-dimensional medium. Two lecture; two lab.

ART 281 • Art Studio – Three-Dimensional

3 credits

Continuation of investigation, advanced problem-solving and personal creative development in area of three-dimensional specialization. Course may be repeated. Prerequisite: Minimum of six hours in a specific three-dimensional medium. Two lecture; two lab.

ART 289 • Figurative Ceramics

3 credits

Exploration of the human form in clay. Solid sculpting and hollowing techniques will be used in combination with ceramic surface options. Human anatomy and proportions will be examined through portraiture and with the use of a live model. Two lecture; two lab.

Automotive Technology (ATO)

ATO 114 • Brake Systems I

3 credits

The repair and maintenance of the vehicle hydraulic braking systems, power brake systems and wheel bearings will be examined in a hands-on setting. Two lecture; two lab.

ATO 116 • Introduction to Auto and Safety

2 credits

Covers various aspects of the automotive industry from safety regulations, procedures for a safe work environment, automotive-related tools, Globally Harmonized System for Hazardous Materials, and vehicle checklists for maintenance. One lecture; two lab.

ATO 118 • Electrical I

3 credits

Generally covers the automotive electronics and electrical systems used in modern vehicles. Diagnostics, basic electrical theories, and troubleshooting of malfunctioning electrical systems are additionally explored. Introductory electrical tools and equipment are used for training purposes. Prerequisite: ATO 116 or instructor permission. Two lecture; two lab.

ATO 120 • Electrical II

3 credits

Covers automotive batteries, starting, and charging systems. Students perform diagnosis, repair and replacement of the components and subsystems related to batteries, starters, and chargers. Prerequisite: ATO 118 or instructor permission. One lecture; four lab.

ATO 122 • Electrical III

3 credits

Explores the diagnosis and repair of lighting, instrument cluster, driver information, and body electrical systems encompassed in automobiles. Prerequisite: ATO 120 or instructor permission. One lecture; four lab.

ATO 124 • Engine Repair I

3 credits

Encompasses the basics of testing and diagnosis for engine components using a variety of techniques. Explores conditions of systems from the general engine, cylinders, valve trains, cooling systems, and lubrication. Prerequisite: ATO 116 or instructor permission. One lecture; four lab.

ATO 126 • Engine Repair II

3 credits

Expands upon the basics of testing and diagnosis for engine components. Revisits topics from ATO 124 including: conditions of systems from the general engine, cylinders, valve trains, cooling systems, and lubrication. Prerequisite: ATO 124 or instructor permission. Two lecture; two lab.

ATO 128 • Engine Performance I

3 credits

Explore general topics related to engine performance and computerized controls related to the drivability and performance of a vehicle. Prerequisite: ATO 116 or instructor permission. Two lecture; two lab.

ATO 130 • Engine Performance II

3 credits

Explores automotive topics related to fuel, air induction, exhaust and emission control systems related to safe operation and performance of a motorized vehicle. Prerequisite: ATO 128 or instructor permission. Two lecture; two lab.

ATO 134 • Fundamentals of Plastic Welding

3 credits

Introduces theories pertaining to thermoplastics, welding techniques, plastic identification processes, fusion welding, chemical welding processes, and thermoset plastics. Prerequisite: ATO 116 or CON 100 or CON 107 or WLD 100 or instructor permission. Three lecture..

ATO 175 • GMAW Plate

3 credits

An introduction to: gas metal arc welding (GMAW) equipment and filler metals; gas metal arc plate and the fabrication of GMAW fillet welds on plate in all positions. Co-requisite: WLD 100 or instructor permission. Two lecture; two lab.

ATO 201 • Automotive Fundamentals & Basic Service

3 credits

Overview of major vehicle components and basic automobile maintenance techniques for a novice technician. Intended as an introduction to those seeking basic vehicle maintenance skills in automotive applications. Two lecture; two lab.

ATO 203 • Exploring Employment Opportunities

1 credit

Prepares students for career opportunities within the automotive industry by focusing on career skills development, job placements, site visits and guest speakers. Prerequisite: Instructor permission. Half lecture; one lab.

ATO 216 • Suspension and Steering

4 credits

Covers the operation, diagnosis, service and repair of steering and suspension systems. Areas of instruction include front and rear suspension, wheels, tires, steering and four-wheel alignment. Prerequisite: ATO 116 or instructor permission. Three lecture; two lab.

ATO 218 • Automatic Transmissions

4 credits

Covers general automatic transmission, introduces continuously variable transmissions and trans-axle diagnosis in vehicle repair and maintenance. Prerequisite: ATO 116 or instructor permission. Two lecture; four lab.

ATO 220 • Manual Transmissions and Drive Trains

4 credits

Covers manual transmissions and drive trains as pertinent to automotive repair and service on related systems. Prerequisite: ATO 116 or instructor permission. Two lecture; four lab.

ATO 222 • Brake Systems

4 credits

Covers operation, inspection, repair and maintenance of the brake hydraulic systems, power brake systems and wheel bearings. Prerequisite: ATO 116 or instructor permission. Three lecture; two lab.

ATO 224 • HVAC Systems

4 credits

Covers operation, diagnosis, service and repair of automotive heating and air conditioning systems. Prerequisite: ATO 116 or instructor permission. Three lecture; two lab.

ATO 226 • Automotive Diesel

4 credits

Introduces diesel engines and the related concepts of maintenance and repair. Prerequisite: ATO 116 or instructor permission. Three lecture; two lab.

ATO 230 • Hybrid Vehicles

3 credits

Explores different mechanical layouts of hybrid powertrains and the energy management systems that control the hybrid powertrain modes and battery charging and discharging. The inter-relationship of performance and complexity in the powertrain is explored along with the sizing of powertrains from micro, mild, full hybrids, and plug-in hybrids. Prerequisite: ATO 116 or instructor permission. Two lecture; two lab.

ATO 234 • High Performance Engines

3 credits

Advanced applications of skills related to assembling performance engines using advanced components. Immersive examples in comprehensive engine building processes; applicability to various engine configurations from V8 to horizontally opposed. Prerequisite: ATO 130 or instructor permission. Two lecture; two lab.

Behavioral Health Studies (BHS)

BHS 150 • Behavioral Health Professions

3 credits

Overview of behavioral health and social services professions, employment opportunities, and self-assessment for a career in behavioral health. Covers mental health disorders and first responder crisis management skills. Three lecture.

BHS 155 • Professional Resiliency and Well Being

3 credits

Preventing burnout, traumatic stress, and compassion fatigue for relationship-intensive occupations through building resilience and well-being. Focus on evidence-based practices such as cognitive behavioral therapy, mindfulness, and self-care (nutrition, exercise, sleep, peer support). Three lecture.

BHS 160 • Ethical Awareness

3 credits

Explores ethical, legal, and professional issues in the behavioral health and social services field; including boundaries, dual relationships, mandated reporting, confidentiality, scope of practice, beneficence and non-maleficence, rights and responsibilities, professional relationships, and credentialing/ regulatory agencies. Three lecture.

BHS 165 • Therapeutic Communication Skills

3 credits

Explores the communication skills integral to effective therapeutic and helping relationships, including verbal and nonverbal communication, rapport building, empathetic listening, feedback, and conflict resolution. Three lecture.

BHS 166 • Treatment Planning & Assessment

3 credits

Explores principles and practices of behavioral health treatment planning and assessment. Focuses on standardized assessments and evidence-based treatments to integrate into effective new and ongoing treatment plans as a part of the treatment process. Prerequisites: BHS 150, BHS 160, and BHS 165. Three lecture.

BHS 168 • Introduction to Social Work

3 credits

Introduces social work as a profession and social welfare as an institution. Emphasizes historical development of the field and fundamental social work principles and philosophy. Provides students with a beginning understanding of social work practice methods for delivery of social welfare services. Introduces the client intake and interview process. Three lecture.

BHS 170 • Case Management and Clinical Documentation

3 credits

Principles and practices of case management in human services, including service delivery and coordination for clients with psychological, developmental, and medical conditions, and documentation techniques for behavioral healthcare settings. Prerequisites: BHS 150, BHS 160, and BHS 165. Three lecture.

BHS 175 • Trauma & Crisis Management

3 credits

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: BHS 150, BHS 160, and BHS 165. Three lecture.

BHS 178 • Peer and Recovery Support Certification

3 credits

Prepares individuals with lived experience in behavioral health and substance use recovery to work as a Peer and Recovery Support Specialist (PRSS). Covers concepts of hope and recovery, advocacy and systems perspective, psychiatric rehabilitation skills, service delivery, professional responsibilities, and self-care in a curriculum compliant with the Arizona Health Care Cost Containment System (AHCCCS). Successful completion and passing the competency exam credential enables students to offer peer support services in Arizona. Prerequisites: Individuals who participate in this class to become a Peer Recovery Support Specialist (PRSS) must self-identify as an individual who: Has their own lived experience of mental health conditions, and/or substance use, for which they have sought support, and has an experience of sustained recovery to share. Three lecture.

BHS 180 • Child, Family, & Adult Advocacy

3 credits

Explores advocacy for children, families, and adults, focusing on identifying community resources and services to support healthy development, recovery, and social welfare in individual and family contexts. Three lecture.

BHS 185 • Multicultural Competence

3 credits

Examines cultural diversity and its influence on behavior, relationships, communication, and values. Includes intercultural communication strategies mindful of ethnic, sexual, and gender identity along with social justice and religious diversity. Considers cultural impact in treatment processes and encourages self-awareness for professionals in behavioral health. Prerequisites: BHS 150, BHS 160, and BHS 165. Three lecture.

BHS 190 • Mental Health Technician Certification

1 credit

Prepares students for the Certified Mental Health Technician exam. Ideal for aspiring and current behavioral health technical professionals. Students review behavioral health services program content. Covers marketability and certification benefits. Co-requisites: BHS 150, BHS 155, BHS 160, BHS 165, BHS 166, BHS 170, BHS 175, BHS 185, BHS 205, and BHS 215 or instructor permission if student has worked as a Behavioral Health Technician for 2 or more years. One lecture.

BHS 191 • Division of Developmental Disability Trainings

1 credit

Provides training in Developmental Disabilities and Psychological First Aid towards certification in behavioral health areas. Combines both self-directed and instructor-led trainings to build up your professional portfolio. Prepares students to work with people with developmental disabilities cases and provide behavior supports. One lecture.

BHS 195 • Internship I

1 credit

Prepares students to work in a supervised behavioral health role in a behavioral health, mental health, or social work setting through foundational experiential learning. Students complete 40 hours of supervised practice in local behavioral health settings as they observe, shadow, and apply basic behavioral health skills. Covers various services, safety protocols, and effective communication in diverse behavioral health settings to increase familiarity with the field and its practices. Three practicum.

BHS 200 • Professional Skills and Certification

3 credits

Training and certification in Psychological First Aid (PFA), Mental Health First Aid (MHFA), and Article 9 – AZ Division of Developmental Disabilities treatment requirement. Review of core concepts related to behavioral health and preparation for the certification exam for Certified Mental Health Technician (CMHT). Professional portfolio development. No prerequisites are required for this course; however, students will find the course material easier if they have completed at least the core coursework listed in Behavioral Health Certificate of Proficiency due to the pace of material review. Three lecture.

BHS 205 • Theories in Individual Therapy

3 credits

Explores evidence-based therapeutic models, including key concepts, techniques, and applications: in person-centered therapy, cognitive behavioral therapy, motivational interviewing, and applied behavior analysis. Prerequisites: BHS 150, BHS 160, and BHS 165. Three lecture.

BHS 206 • Foundations of Chemical Dependency

3 credits

Introduction to the foundations of substance misuse rehabilitation field. Emphasis on the roles and responsibilities of the addiction 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. Three lecture.

BHS 207 • Family Dynamics and Chemical Dependency

3 credits

Explores the impact of addictions on all the members of the family. Students analyze family roles, trauma, and family systems along with interviewing, assessment, and therapeutic approaches particularly tailored for affected family members. Course provides a comprehensive understanding of substance use disorders and addiction within familial contexts. Three lecture.

BHS 208 • Biosystems/Pharmacology of Chemical Dependency

3 credits

Exploration of the pharmacology of substance misuse and dependency. Examines the effects of psychopharmacological chemicals on human physiology. Emphasizes identification and management of substance misuse and dependency. Three lecture.

BHS 210 • De-escalation and Conflict Resolution

1 credit

Explores nonviolent verbal and non-verbal de-escalation techniques and conflict resolution skills related to high tension and potentially threatening settings. Students practice self-monitoring and assessment of others' emotional escalation. Students also practice and apply skills to increase physical and emotional safety in high stress situations and manage conflict. One lecture.

BHS 215 • Theories in Group Therapy

3 credits

Overview of methods and techniques for leading groups in behavioral health and addiction treatment settings, including theories and concepts necessary for successful change. Prerequisites: BHS 150, BHS 160, and BHS 165. Three lecture.

BHS 220 • Applied Behavior Analysis

3 credits

Introduces applied behavior analysis (ABA) in the treatment of behavioral issues, including autism spectrum disorder; provides training in skills necessary for certification as a Registered Behavioral Technician including behavioral health measurement, assessment, skill acquisition, behavior reduction, and documentation and reporting. Co-requisite ECD 223. Three lecture.

BHS 230 • Crisis and Trauma Stabilization

3 credits

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. Prerequisite: BHS 175. Three lecture.

BHS 266 • Clinical Assessment and Treatment of Addiction

3 credits

Comprehensive exploration of the clinical assessment and treatment of addiction, focusing on diagnostic criteria, evidence-based practices and interventions, pharmacotherapy, and co-occurring disorders. Using the biopsychosocial model of addiction, which integrates genetic, environmental, and psychological factors, students develop holistic, individualized treatment plans. Three lecture.

BHS 267 • Return to Use, Recovery, and Addiction

3 credits

Explores factors that can contribute to or inhibit recovery. Students examine factors that prevent or lead to the return to use, including relevant biopsychosocial processes. Three lecture.

BHS 295 • Internship II

2 credits

Facilitates direct work in a supervised behavioral health role in a behavioral health, mental health, or social work setting. Students gain 80 hours of advanced supervised practice. Covers skills in service identification, safety, communication, the application of behavioral health concepts specific population interests, and marketability. This internship is designed to help design a clear pathway for student job opportunities post program completion. Prerequisite: BHS 195. Six clinical.

Biology (BIO)

BIO 100 • Biology Concepts

4 credits

Survey of biological principles: scientific inquiry, matter, energy, cell structure and function, reproduction, genetics, evolution, diversity of life, and ecology. Does not satisfy requirements for enrollment in advanced biology courses. Prerequisite: Satisfactory placement. Three lecture; three lab.

BIO 105 • Environmental Biology

4 credits

Fundamentals of ecology as they apply to the study of human impacts on the biosphere and solutions to environmental problems. Prerequisite: Satisfactory placement. Three lecture; three lab.

BIO 145 • Marine Biology

4 credits

Students use the scientific method to learn about marine biology and oceanography, including the unifying principles of evolution, ecology, and plate tectonics. Emphasizes the natural history and phylogenetics of marine life. Discusses diverse habitats including estuaries, reef systems, deep sea, and open ocean. Three lecture; three lab.

BIO 160 • Introduction to Human Anatomy and Physiology

4 credits

Structure and function of the human body examined from interactions that take place at the chemical level up through the level of the whole organism. Prerequisite: Satisfactory placement. Three lecture; three lab.

BIO 181 • General Biology I

4 credits SUN# BIO 1181

Principles of biological science at the molecular and cellular level: the chemistry of life, cell structure and function, genetics and evolution. Requirement for all advanced biology courses. Prerequisite: Satisfactory placement. Three lecture; three lab.

BIO 182 • General Biology II

4 credits SUN# BIO 1182

Structure and function of living things at the organismic and higher levels of the biological hierarchy. Includes exploration of: mechanisms of evolution, biological diversity, and principles of ecology. Prerequisite: BIO 181. Three lecture; three lab.

BIO 201 • Human Anatomy and Physiology I

4 credits SUN# BIO 2201

First semester of a two-semester sequence in which human anatomy and physiology are studied using a body systems approach. Emphasis on the interrelationships between form and function at the gross and microscopic levels of organization. Topics include basic anatomical and directional terminology; fundamental concepts and principles of histology; integumentary, skeletal, muscular and nervous systems; and special senses. Prerequisite: BIO 181; Co-requisite: CHM 130 or CHM 152. Three lecture; three lab.

BIO 202 • Human Anatomy and Physiology II

4 credits SUN# BIO 2202

Second semester of a two-semester sequence in which human anatomy and physiology are studied using a body systems approach. Emphasis on the interrelationships between form and function at the gross and microscopic levels of organization. Topics include endocrine and cardiovascular systems, lymphatic system and immunity; respiratory and digestive systems; metabolism; urinary system; fluid/electrolyte and acid/base balance; and reproductive systems. Prerequisite: BIO 201. Three lecture; three lab.

BIO 205 • Microbiology

4 credits SUN# BIO 2205

Bacterial, viral, fungal and protozoan biology, including microbial cytology, nutrition and metabolism, growth and reproduction, cultivation applications and bio-industrial/bio-medical technologies. Prerequisites: BIO 181 and either CHM 130 or CHM 152. Three lecture; three lab.

BIO 241 • Human Genetics

3 credits

An introduction to the basic concepts and principles of human heredity with an emphasis on the medical and health aspects of human genetics. Topics include Mendelian genetics, cytogenetics, molecular /biochemical genetics, polygenetics and population genetics. Prerequisite: BIO 181 or equivalent or instructor permission. Three lecture.

Business (BUS)

BUS 100 • Introduction to Business

3 credits

Introduction to business operations. Includes marketing, management, human resources, finance, stakeholder relations, and the economic environment of capitalism. Three lecture. (8-week course)

BUS 103 • Success on Your Job

2 credits

How to successfully get and keep a job. Emphasizes human relations, time management, business dress, business etiquette, positive attitude development and résumé/portfolio development. Two lecture. (8-week course)

BUS 105 • Techniques of Supervision

3 credits

The basic principles of supervision with attention given to the development of skills needed to become a successful manager. Three lecture. (8-week course)

BUS 106 • Techniques of Personal Finance

3 credits

Personal money management with emphasis on budgeting, use of credit, insurance, investments and other financial planning topics. Three lecture. (8-week course)

BUS 110 • Small Business Management

3 credits

Emphasizes launching and growing new entrepreneurial ventures. Topics covered are small business principles, management, marketing, accounting, finance, and budgeting techniques. Three lecture. (8-week course)

BUS 114 • Survey of Accounting

3 credits

Introduction to both financial and managerial accounting topics. Includes concepts and relationships involved in preparing and analyzing financial statements; and basic decision making for internal financial managers. Three lecture. (8-week course)

BUS 119 • Medical Office Administrative Procedures

3 credits

Study of administrative duties performed in a variety of medical office environments. Skill development in the areas of judgment, independent action, and coping with interruptions. Additional topics of study will include proper techniques in communication, creation and maintenance of patient charts, and financial related processes. Three lecture. (8-week course)

BUS 122 • Computerized Accounting with QuickBooks™

3 credits

Covers computer accounting concepts using Quickbooks software. Includes getting started with Quickbooks and preparing balance sheets, income statements, and cash flow statements. Develops skills to set up a business accounting system, adjust entries, manage budgets, and run reports. Prerequisite: BUS 114 or instructor permission. Two lecture; two lab. (8-week course)

BUS 123 • Income Tax Procedures

3 credits

Overview of individual, partnership and corporation income tax system. Includes tax calculation, who must file, filing status, exemptions, itemized deductions and standard deductions. Introduction to capital gains and losses along with tax information available through the IRS also included. Three lecture. (8-week course)

BUS 124 • Basic Keyboarding and Document Processing

2 credits

Overview of keyboarding and document processing. Students learn to type and format documents (e-mails, letters, memos, reports, and tables) using word processing software. One lecture; two lab. (16-week course)

BUS 125 • Payroll Accounting

3 credits

Payroll accounting concepts using manual and computerized systems. Includes payroll and personnel records, computing wages and salaries, Social Security taxes, income tax withholding, unemployment compensation and journal entries. Three lecture. (8-week course)

BUS 127 • MS Office Level I

3 credits

Level I Microsoft Office Applications. Includes coverage of Windows, Microsoft Word, Excel, and PowerPoint. Students apply problem-solving techniques to complete a variety of projects including integrating Office applications. Three lecture. (8-week and 16-week course)

BUS 128 • Microsoft Excel Applications for Business

3 credits

Explores spreadsheet software to design electronic spreadsheets for business, financial analysis and forecasting. Three lecture. (8-week course)

BUS 133 • Business Mathematics

3 credits

An introduction to the practice in mathematics of fundamental business operations and applications including payroll, finance, interest, loans, and investments. Prerequisite: satisfactory placement. Three lecture. (16-week course)

BUS 144 • Professional Office Skills

3 credits

Survey of the evolving modern office and the procedures related to modern technology. Basic skills covered include human relations, oral/written communications, records management, basic mathematics and business grammar review, reprographics, time management, supervision/management and telecommunications. Prerequisite: Keyboarding skills equivalent to 20 words a minute. Three lecture. (8-week course)

BUS 149 • Microsoft Publisher Basics

1 credit

Basics of desktop publishing using Microsoft Publisher software. Includes page layout, graphics, and manipulating text using various tools, scanned images and special effects. Designed for students with basic keyboarding skills. Prerequisite: Keyboarding skills of 20 words per minute. One-half lecture; one lab. (8-week course)

BUS 151 • Microsoft Excel Basics

1 credit

Introduction to Microsoft Excel spreadsheet software with personal and business applications. Designed for student with basic keyboarding skills. Half-credit lecture; one lab. (8-week course)

BUS 152 • Microsoft Word Basics

1 credit

Get started with Microsoft Word. Learn to create, edit, format and print Word documents. Learn to create and format tables, sort data, merge cells, perform calculations and custom format. Prerequisite: Basic keyboarding skills. One-half lecture; one lab. (8-week course)

BUS 155 • Microsoft Word Level I

3 credits

Level I coverage of Microsoft Word. Software applications include preparing reports, letters, memos and other business documents, creating macros, and inserting graphics into documents. Designed for student with basic keyboarding skills. Prerequisite: Keyboarding skills equivalent to 20 words per minute. Two lecture; two lab. (8-week course)

BUS 179 • Medical Coding

4 credits

Medical coding is the transformation of narrative descriptions of diseases, injuries, and healthcare procedures into numeric or alphanumeric designations (code numbers). Topics include assignment and identification of the information using current industry standards. Briefly covers medical terminology and anatomy. Prerequisites HES 170 and HES 190. Four lecture. (16-week course)

BUS 182 • Records Management

3 credits

Covers types of records management systems and approaches to filing including developments in digital data storage. Three lecture. (8-week course)

BUS 183 • Electronic Medical Records

3 credits

Introduces all facets of electronic medical record (EMR) as applied to the medical field. Includes administrative topics involving patient account creation and maintenance, billing and insurance systems, and clinical tasks. Three lecture. (8-week course)

BUS 184 • Medical Scribe

3 credits

Students practice real-time clinical documentation and workflow efficiencies by collecting information gathered at a simulated point-of-care encounter with patients and providers and input data to create and maintain comprehensive and accurate electronic health records. Prerequisite: BUS 183 or instructor approval. Three lecture. (8-week course)

BUS 185 • Ethics in Management

3 credits

Introduction to theories of ethics for organizational managers. Perspectives on ethics are covered with applications to stakeholders and consideration of government regulation. Analysis of real-world examples. Three lecture. (8-week course)

BUS 188 • Medical Transcription Fundamentals

3 credits

Introduces the healthcare documentation field with hands-on transcription practice in a variety of medical specialties and settings. Increases fundamental knowledge of standard transcription and scribe practices, anatomy, pathophysiology, disease processes, pharmacology, and mastering expressions of medical language. Prerequisites: BUS 183, HES 170, and HES 190. Three lecture. (8-week course)

BUS 189 • Computerized Medical Billing

3 credits

Introduction to the medical insurance billing process, including updating and maintaining patient information, billing and insurance procedures. Students use industry standards in collecting data, processing charges, and ensuring accurate coding to create insurance claims. Prerequisites: BUS 179 and BUS 183. Three lecture. Online fall semester. (16-week course)

BUS 201 • Quantitative Methods

3 credits SUNY BUS 2201

Basic business statistics including the collections, tabulation, and analysis of business and economic data. Topics include methods of statistical description, probability theory, and statistical inference in business and economics. Prerequisite: MAT 211 or higher. Three lecture. (8-week course)

BUS 202 • Professional Customer Service

1 credit

Provides student with knowledge of customer service and the fundamental abilities and strategies leading to successful customer service in any type of organization. One lecture. (8-week course)

BUS 203 • Introduction to Business Communication

3 credits

Facilitates critical analysis of communication in a variety of social and cultural contexts. Examines communication products/processes and the various ways we negotiate their importance. Includes theory and practice of communication skills in public, small group, and interpersonal settings, and the study of the speech communication process. Prerequisites: BUS 127 or CIS 105 or instructor approval. Three lecture. (8-week course)

BUS 206 • Legal, Ethical, Global & Regulatory Environment of Business

3 credits

Basic coverage of the environment of business, including legal and ethical issues and the regulatory and global environment of business that affect business policies and decisions. Three lecture (8-week course)

BUS 210 • Principles of Management

3 credits

Presents principles of management with general applicability to all types of enterprises, management philosophy, and decision making; principles involved in planning, directing, and controlling as well as concepts in management. Three lecture. (8-week course)

BUS 217 • Principles of Financial Accounting

3 credits SUN# ACC 2201

An introduction to the study of formal financial accounting concepts, procedures and practices. Learn the environment of accounting to include journalizing entries, management of assets and liabilities, and accounting for cash and receivables. Additional topics of study will include internal control systems, and financial statement analysis. Three lecture. (8-week or 16-week course)

BUS 218 • Principles of Managerial Accounting

3 credits SUN# ACC 2202

Covers accounting equity issues, statements of change in financial position, analysis of financial statements and cost accounting. Prerequisite: BUS 217. Three lecture. (8-week course)

BUS 220 • Principles of Marketing

3 credits

Marketing concepts in the areas of retailing and wholesaling. Special emphasis is given to consumer needs and the relationship of the consumer with the marketing system as a whole. Distribution methods, costs, pricing, buying habits and motivation are covered. Three lecture. (8-week course)

BUS 225 • Human Resources Management

3 credits

Covers concepts in motivation, leadership, organizational development, workplace diversity, safety, job design and career planning. Three lecture. (8-week course)

BUS 230 • Organizational Leadership

3 credits

Traditional leadership theory with current leadership topics including culture, ethics, diversity, strategic leadership and change management. Provides models for effectively handling leadership functions. Three lecture. (8-week course)

BUS 231 • Microsoft Office Level I

3 credits

Level I Microsoft Office Applications. Includes coverage of Windows, Microsoft Word, Excel, Access and PowerPoint. Students apply problem-solving techniques to complete a variety of projects including integrating Office applications. Combined with BUS 234 this course helps prepare the student for the core Microsoft Office Specialist (MOS) certification examination. Prerequisite: Keyboarding skills of 20 words per minute. Two lecture; two lab. See BUS 127 (8-week and 16-week course)

BUS 234 • Microsoft Office Level II

3 credits

Advanced course covers applications in Microsoft Office Suite including Word, Excel, Access, and PowerPoint. Students apply advanced problem-solving techniques to complete professional-looking documents and projects. Combined with BUS 231 this course helps prepare the student for the core Microsoft Office Specialist (MOS) Certification examination. Prerequisite: BUS 231 Two lecture; two lab. (8-week course)

BUS 240 • Entrepreneurship

3 credits

Combines practical, step-by-step approach with a theoretical foundation to form basic understanding of the theory, process and practice of entrepreneurship. Provides the opportunity to apply ideas and develop useful entrepreneurial skills. Prerequisite: BUS 110. Three lecture. (8-week course)

BUS 250 • Medical Administration Capstone

3 credits

Study of health care administration that integrates knowledge and skills gained from previous coursework. Focuses on health care delivery systems and strategic decision-making in the rapidly evolving global arena of health care administration. Prerequisites: BUS 188 and BUS 189. Three lecture. (8-week course)

BUS 255 • Microsoft Word Level II

3 credits

Level two coverage of Microsoft Word. Software applications include advanced software applications such as tables and charts, inserting and modifying pictures and illustrations, linking and embedding objects and creating and modifying newsletters. Prerequisite: BUS 155 or instructor permission. Two lecture; two lab. (8-week course)

BUS 310 • Introduction to Strategic Management

3 credits

Evaluates strategic theories and practices by organizations. Students create a comprehensive look at organizations using fundamental knowledge from accounting, marketing, management, and data analysis. Students examine the intricacies of organizational decision-making and demonstrate knowledge of the interrelatedness of local, global, international, and intercultural issues, trends, and systems. Prerequisites: ECN 211 and ECN 212 and admission to a Bachelor of Applied Management degree program. Three lecture. (8-week course)

BUS 320 • Marketing and Communications Management

3 credits

Market planning, execution, and assessment. Emphasizes decision and communication skills related to market opportunity analyses and marketing program development as a core business function including building brand equity, developing effective communication, advertising management, and creating effective sales promotions. Prerequisites: BUS 203 and admission to a Bachelor of Applied Management degree program. Three lecture. (8-week course)

BUS 325 • Managing Organizational Change

3 credits

Evaluates the foundations of organizational change and development. Emphasis is placed on the human factors of organizational changes, including leadership, influential organizational change models, stages of organizational change, and organizational culture change. This course teaches students how to develop positive organizational changes and improve organizational performance. Prerequisites: BUS 203 and admission to a Bachelor of Applied Management degree program. Three lecture. (8-week course)

BUS 330 • Organizational Management in Healthcare

3 credits

Examines the management roles within healthcare organizations, including the application of management techniques in healthcare organizations, clinical and nonclinical support services, quality improvement, and strategic planning and governance. Students learn the variability of management styles and personalities to integrate into their own management style. Prerequisites: BUS 203 and admission to a Bachelor of Applied Management degree program. Three lecture. (8-week course)

BUS 360 • Diversity in Organizations

3 credits

Covers the integration of diversity in organizational policies, structure, and demographics. Students summarize how and why workplace stereotyping, prejudice, bias, and discrimination are pervasive in business and gain an understanding of how diversity influences internal and external opportunities in local, domestic, and global business environments. Prerequisites: BUS 203 and admission to a Bachelor of Applied Management degree program. Three lecture. (8-week course)

BUS 380 • Understanding the Supply Chain

3 credits

An introduction to supply chain management including its history, purpose, general principles, and its interrelationships with other functional areas of business. Students learn terms and concepts for communications with supply chain personnel along with the role of supply chain management and its impact on competition. Prerequisites: ECN 211 and ECN 212 and admission to a Bachelor of Applied Management degree program. Three lecture. (8-week course)

BUS 400 • Introduction to Project Management

3 credits

Introduction to the conceptual tools, principles, and standards of project management. Topics include foundational terminology, models, methods, and artifacts of the project management profession, aligned with Project Management Institute model of project performance domains. Prepares students to take industry-recognized certification exams in project management. Prerequisites: ECN 211 and ECN 212 and admission to a Bachelor of Applied Management degree program. Three lecture. (8-week course)

BUS 418 • Financial Management

3 credits

An introduction to the valuation of real and financial assets with applications to financial management. Develop financial statements, estimate cash flows and required rates of return, time value of money, discounted cash flow valuations, capital budgeting, and the use of debt and equity financing. Prerequisites: BUS 218 and admission to a Bachelor of Applied Management degree program. Three lecture. (8-week course)

BUS 419 • Healthcare Finance and Revenue Cycles

3 credits

Increases understanding of how healthcare accounting is implemented in the decision making and policy process. Concepts include implications of changes in healthcare reimbursement, understanding and analyzing financial statements for healthcare entities, practical applications of managerial accounting, and decision-making tools for managers within healthcare enterprises. Prerequisites: BUS 218 and admission to a Bachelor of Applied Management degree program. Three lecture. (8-week course)

BUS 440 • Principles of International Business

3 credits

Examines different cultural, legal, political, ethical, and economic environments in a comparative and interpretive framework. Emphasizes business practices and outcomes for producers, employees, and consumers. Prerequisites: ECN 211 and ECN 212 and admission to a Bachelor of Applied Management degree program Three lecture. (8-week course)

BUS 445 • Healthcare Economics and Data Management

3 credits

Provides an overview of the use of data to measure healthcare delivery and improve business processes, review sources of population data, and perform comparative analysis. Students determine variations in how medical resources are distributed and used and the economic effects of those decisions. Prerequisites: ECN 211 and ECN 212 and admission to a Bachelor of Applied Management degree program Three lecture. (8-week course)

BUS 490 • Applied Management Capstone

3 credits

Incorporates students' prior learning in related coursework and workplace experiences to individually assess an organization. Major components include the strategic analysis of an organization; the development of a forward-looking strategy with competitive, ethical, and global considerations; and the development of an implementation plan. Prerequisites: BUS 380, BUS 400, and BUS 418 or BUS 419. Three lecture. (8-week course)

Chemistry (CHM)

CHM 130 • Fundamental Chemistry

4 credits SUN# CHM 1130

Introduction to chemistry for nursing, allied health, general education, and non-STEM major students. Covers the fundamentals of atomic/molecular structure, moles and stoichiometry, chemical structure, chemical bonding, states of matter, solution concentrations, acid–base chemistry, redox chemistry, and nuclear chemistry. Prerequisite: MAT 109 or satisfactory placement. Three lecture; three lab.

CHM 151 • General Chemistry I

4 credits SUN# CHM 1151

Detailed study of principles of chemistry intended for students in STEM majors. Includes the study of atomic/molecular structure, moles and stoichiometry, chemical structure, chemical bonding, gas, thermochemistry, and electronic structure. Prerequisites: MAT 112 and high school chemistry or CHM 130 with a grade of "C" or better, or satisfactory placement. Three lecture; three lab.

CHM 152 • General Chemistry II

4 credits SUN# CHM 1152

Advanced study of chemistry for students in STEM majors. Includes the study of intermolecular forces, solutions, chemical kinetics, chemical equilibrium, acid-base chemistry, thermodynamics, electrochemistry, nuclear chemistry, and organic chemistry. Prerequisite: CHM 151. Three lecture; three lab.

Child and Family Studies (CFS)

CFS 100 • Infant-Toddler Social and Emotional Development

3 credits

Study of the social and emotional development of infants and toddlers. Examines the infant-toddler and caregiver relationship as the foundation for social and emotional development. Addresses strategies for supporting social and emotional development including children's autonomy, positive self-concept and social competence. Prerequisite: ECD 135 or department permission. Three lecture.

CFS 101 • Infant-Toddler Cognitive Development

3 credits

Examines the development of the cognitive domain in infants and toddlers. Explores influences on development and assessment of typical and atypical cognitive development. Addresses appropriate planning and implementation of a variety of strategies that support cognitive and sensory learning in infants and toddlers. Prerequisite: ECD 135 or department permission. Three lecture.

CFS 108 • Observing Children Within The Family System

1 credit

Provides a foundation in observing, documenting, and assessing children within their family system to understand behavior and development. Prerequisite: ECD 135 or PSY 240. One lecture.

College and Career Preparation (CCP)

CCP 55X • Opportunities Through Education

0 credit

Orientation to assess a student's readiness for the High School Equivalency test. Placement testing will determine areas of remediation while introducing students to the various services and academic degrees offered by NPC. One-half lecture.

CCP 015 • English Language Acquisition I

2 credits

Reading, writing, listening, and speaking for non-native English speakers, with emphasis on building essential communication skills for everyday situations. Focuses on both spoken and written language. Students explore key vocabulary and expressions for daily conversations, improve their ability to share information, and develop the confidence to express ideas, feelings, and opinions clearly. ESL Level I & II. Prerequisite: CCP CLAS-E Placement. Two lecture.

CCP 025 • English Language Acquisition II

2 credits

Reading, writing, listening and speaking skills for non-native English speakers, with emphasis on building strong communication, writing, and research skills for academic and real-world contexts. Students learn emerging strategies for identifying the main ideas, key details, and themes in both spoken and written texts, and develop the ability to express these insights through various forms of communication. ESL Level III & IV. Prerequisite: CCP CLAS-E Placement or Successful Completion of CCP 015. Two lecture.

CCP 035 • English Language Acquisition III

2 credits

Reading, writing, listening, and speaking skills for non-native English speakers with emphasis on improving students' ability to summarize key ideas, engage in meaningful discussions, and present information clearly across various formats. Students develop skills to support main ideas with evidence, create persuasive arguments, and conduct research projects while using diverse sources of information. ESL Level V. Prerequisite: CCP CLAS-E Placement or Successful Completion of CCP 025. Two lecture.

CCP 040 • Reading/Writing Applications I

3 credits

Builds reading, writing, listening, and speaking skills with emphasis on understanding sentence structure; developing phonemic awareness; applying reading comprehension; expanding vocabulary; using the writing process for a variety of writing products; practicing technology skills; and identifying text structures. ABE Level I. Prerequisite: Satisfactory Placement ABE I. Three lecture.

CCP 041 • Mathematical Applications I

3 credits

Foundational mathematics including place value of one- and two-digit numbers, addition and subtraction, money, basic geometric shapes, measurement with whole numbers, and digital literacy. ABE Level I. Prerequisite: Satisfactory Placement or Instructor Approval. (Satisfactory Placement = Testing into ABE Level I Mathematics range). Three lecture.

CCP 045 • English Language Acquisition IV

2 credits

Reading, writing, listening, and speaking skills for non-native English speakers with emphasis on preparing students with skills to engage in deep discussions, write effectively, and deliver compelling presentations, focusing on themes, central ideas, and persuasive communication. Learners refine their abilities to create, support, and defend claims, and gain foundational research skills for problem-solving and synthesizing information. ESL Level VI. Prerequisite: CCP CLAS-E Placement or Successful Completion of CCP 035. Two lecture.

CCP 050 • Reading/Writing Applications II

3 credits

Develops reading, writing, listening, and speaking skills including identification of main ideas and supporting details; increasing reading comprehension and vocabulary development; applying the writing process with emphasis on paragraph development in various text structures; and expanding technology skills. ABE Level II. Prerequisite: Satisfactory placement. Three lecture.

CCP 051 • Mathematical Applications II

3 credits

Foundational mathematics covering four basic operations (addition, subtraction, multiplication, and division); intermediate geometric shapes; simple graphs; and application of skills in real-world contexts. ABE Level II. Prerequisite: Satisfactory Placement or Instructor Approval. (Satisfactory Placement = Completion of ABE Level I mathematics or demonstrated proficiency as determined by placement assessment.) Three lecture.

CCP 060 • Reading/Writing Applications III

3 credits

Reading with focus on vocabulary, fluency, and comprehension; application of reading skills to the writing process for creating written products that reflect understanding. ABE Level III. Prerequisite: Satisfactory placement. Three lecture.

CCP 061 • Mathematical Applications III

3 credits

Covers mathematics skills using decimals, fractions, and foundational data analysis in real-world applications for work, home, and continuing education. ABE Level III. Prerequisite: Satisfactory Placement. Three lecture.

CCP 064 • Science with Reading/Writing Applications III

3 credits

Strengthens understanding and reading skills in the areas of life science, physical science, earth science, and space science as preparation for college and career success. ABE Level III. Prerequisite: Satisfactory Placement. Three lecture.

CCP 066 • Social Studies with Reading/Writing Applications III

3 credits

Strengthens concepts in the areas of U.S. history, civics, political systems, economics, and geography with integration of reading and writing skills in preparation for college and career success. ABE Level III. Prerequisite: Satisfactory Placement. Three lecture.

CCP 070 • Reading/Writing Applications IV

3 credits

Strengthens the Adult Basic Education skill level in reading, researching, and writing short academic essays in preparation for college and career success. ABE Level IV. Prerequisite: Satisfactory placement. Three lecture.

CCP 071 • Mathematical Applications IV

3 credits

Builds foundational mathematic skills through real-world applications in budgeting, measurement, data, and problem-solving. Supports adult learners in work, daily life, and academic transitions. Covers algebraic expressions and linear equations, two-dimensional geometry, and statistics. Emphasizes critical thinking, digital tools, and communication to prepare for employment, education, and informed decision-making. Level ABE-IV. Prerequisite: Satisfactory Placement or Instructor Approval. (Completion of ABE Level-III mathematics or demonstrated proficiency as determined by placement assessment.) Three lecture.

CCP 077 • High School Equivalency Prep I

3 credits

Introduces Arizona's high school equivalency content along with studying and testing strategies. Prerequisite: CCP 55X and satisfactory placement-ABElll. Three lecture.

CCP 080 • Reading/Writing Applications V

3 credits

Reading and writing skills integrated with informational and literary texts to create proficiency in independently disseminating complex information and to prepare students for college and career readiness. ABE Level V. Prerequisite: Satisfactory placement. Three lecture.

CCP 081 • Mathematical Applications V

3 credits

Builds foundational algebra skills through real-life applications in work, school, and daily life. Topics include number sense, proportions, linear equations, three-dimensional geometry, and data analysis. Emphasizes problem-solving, digital literacy, and reasoning to support GED preparation, workforce readiness, and transition to higher-level mathematics. Level ABE-V. Prerequisite: Satisfactory Placement or Instructor Approval. (Completion of ABE Level 4 mathematics or demonstrated proficiency as determined by placement assessment.) Three lecture.

CCP 084 • High School Equivalency Prep: Civics

1 credit

Introduces Arizona's high school equivalency civics content along with studying and testing strategies. Prerequisite: CCP 55X and satisfactory placement-ABElll. One lecture.

CCP 087 • High School Equivalency Exam Prep II

3 credits

Covers content review and study preparation to complete one or more sub-tests of the Arizona high school equivalency exam. Prerequisite: CCP 55x and satisfactory placement-ABEIV. Three lecture.

CCP 095 • Test-Taking Strategies

0.5 credit

Covers the foundations of test-taking strategies for before, during, and after an exam. Focuses on important exam prep skills such as note-taking, studying, planning, resource identification, managing test anxiety, and reflection. One-half lecture.

CCP 098 • High School Equivalency Ready

0.5 credit

Provides students with test taking strategies, computer skill assessments, and high school equivalency practice tests to determine readiness to pass the Arizona high school equivalency test. Prerequisite: CCP 55X and satisfactory placement-ABEV. One-half lecture.

CCP 103 • Workforce Readiness I

2 credits

Provides instruction and practice with workforce skills in three key subject areas: Reading for Information, Applied Mathematics, and Locating Information. Also instructs in the practice of Work Discipline, Teamwork, Managerial Potential, and Customer Service. Includes Arizona Career Readiness Certification preparation and assessment. One lecture; two lab.

CCP 104 • Workforce Readiness II

2 credits

Advanced workforce skills in three key subject areas: Reading for Information, Applied Mathematics, and Locating Information plus skills in Customer Service, Problem Solving and Critical Thinking. Emphasis is placed on developing a functional Resume and refining interview skills. Prerequisite: Satisfactory placement. One lecture; two lab.

CCP 106 • Workforce Skills I

3 credits

Enhances soft skills necessary for success in the workplace. Instruction and practice are provided in the areas of Reading for Information, Applied Mathematics, and Locating Information, as they are applied directly in the workplace. Two lecture; two lab.

CCP 107 • Workforce Skills II

3 credits

Advanced workforce skills in three key subject areas: Reading for Information, Applied Mathematics, and Locating Information plus skills in Customer Service, Problem Solving and Critical Thinking. Emphasis will be placed on developing a functional Résumé and refining interview skills. Prerequisite: Successful completion of CCP 106/HDE 106 or CCP 103/HDE 103 or instructor permission. Two lecture; two lab.

CCP 124 • Basic Keyboarding and Document Processing

2 credits

Overview of keyboarding and document processing. Students learn to type and format documents (e-mails, letters, memos, reports, and tables) using word processing software. One lecture; two lab.

Computer Information Systems (CIS)

Students must have keyboarding ability or instructor permission in order to take any CIS course.

CIS 103 • Introduction to Windows

1 credit

Introduction to Windows operating environment that takes a critical-thinking approach to teaching Windows concepts and skills. In addition to in-depth coverage of essential topics such as: hardware, software, terminology, file management, Internet and email, and additional Windows tools. One lecture.

CIS 105 • Computer Applications and Information Technology

3 credits SUN# CIS 1120

Introduces business information systems and the uses of business application software with emphasis on database and spreadsheet packages. Prerequisite: Satisfactory placement. Three lecture.

CIS 107 • IT Fundamentals & ITF+ Certification Preparation

3 credits

Introduces the essential IT skills and knowledge needed to perform tasks commonly performed by advanced end-users and entry-level IT professionals. Topics include IT concepts and terminology; infrastructure; applications and software; software development; database fundamentals; security. Prepares students for the CompTIA ITF+ Certification examination. Three lecture.

CIS 111 • Introduction to Programming I

3 credits

Introduces students to concepts of problem-solving using structured and object-oriented programming, algorithmic design, computer systems concepts, and social and ethical responsibilities. Prerequisites: MAT 112 or placement equivalent, and CIS 105 or CIS 107, or instructor permission. Three lecture.

CIS 112 • Introduction to Programming II

3 credits

A continuing introduction to programming with an emphasis on problem-solving and the broader applicability of relevant data structures and programming concepts, as well as the implementation of those structures and concepts in software. Prerequisite: CIS 111 or instructor permission. Three lecture.

CIS 121 • Critical Thinking in Information Technology

3 credits

A survey of topics across information technology. Focuses on critically deconstructing common and edge case scenarios and articulating outcomes through commonsense reasoning and research practices. Three lecture.

CIS 123 • Electronics in Computing

3 credits

Introduction to electronic circuits and devices. Explores the principles of AC/DC electricity and electronics. Three lecture

CIS 125 • Digital Media

3 credits

An introduction to the technical and conceptual tools to understand the basic concepts of digital media. Students learn to create graphics, images, audio, animations, video, presentations, and basic websites to convey effective messages to an audience. Prerequisite: CIS 105 or CIS 107 or instructor permission. Three lecture.

CIS 130 • Information Security Fundamentals

3 credits

Students learn the basic concepts and principles of information security along with current risks and threats to an organization's data and the fundamental approaches to secure computers and networks. Prerequisite: CIS 105 or CIS 107 or instructor permission. Three lecture.

CIS 135 • IT Assessment, Audit, and Controls

3 credits

Students develop a thorough understanding of how to identify and mitigate risk related to information systems and learn how to develop plans and processes for a holistic approach to information security for an organization. Prerequisite: CIS 130 or instructor permission. Three lecture.

CIS 141 • A+ Certification Preparation I

3 credits

Comprehensive practical instruction on theory and skills relating to mobile devices; networking; hardware; virtualization and cloud computing; and network and hardware troubleshooting. Course includes about 50 percent of the competencies required for A+ certification. Prerequisite: CIS 105 or CIS 107 or instructor permission. Two lecture; two lab.

CIS 142 • A+ Certification Preparation II

3 credits

Comprehensive practical instruction on theory and skills relating to operating systems; security; software troubleshooting; and operational procedures. Course includes about 50 percent of the competencies required for A+ certification. Prerequisite: CIS 141 or instructor permission. Two lecture; two lab.

CIS 145 • Network+ Certification Preparation

3 credits

Overview of networking concepts, infrastructure, network operations, network security, and network troubleshooting and tools. Students learn and apply skills through traditional methods as well as hands-on labs. This course prepares students for the CompTIA Network+ examination. Prerequisite: CIS 141 or instructor permission. Three lecture.

CIS 146 • Security+ Certification Preparation

3 credits

Prepares students for the CompTIA Security+ Certification examination. Topics include attacks, threats, and vulnerabilities; architecture and design; implementation; operations and incident response; governance, risk, and compliance. Prerequisite: CIS 130 or instructor permission. Three lecture.

CIS 150 • Digital Culture

3 credits

Trans-disciplinary inquiry into the history, nature and implications of digital spaces and cultures. Students develop critical thinking capabilities and a humanistic perspective on the nature of cyberspace. Three lecture.

CIS 161 • Microsoft Operating Systems

3 credits

Covers in-depth uses of current Microsoft Operating Systems and takes a critical-thinking approach to teaching concepts and skills such as configuring hardware, software, interfaces, security, and practical skills. Prerequisite: CIS 105 or CIS 107 or instructor permission. Three lecture.

CIS 162 • Linux+ Certification Preparation

3 credits

Prepares students for the CompTIA Linux+ certification exam. Topics include hardware and system configuration, systems operation and maintenance, security, troubleshooting, diagnostics, automation, and scripting. Prerequisite: CIS 105 or CIS 107 or instructor permission. Three lecture.

CIS 171 • Linux Operating System

3 credits

An overview of the Linux Operating System. Students learn to install, configure, maintain, and troubleshoot Linux systems. Introduces the command line and graphical user interfaces for workstation users and systems administration purposes. Three lecture.

CIS 187 • Introduction to Web Development

3 credits

Introduction to the theory, art, and practice of web design and development. Students learn to write and manage valid and accessible pages and sites that maintain high standards of usability regardless of client computing platform, connection speed, or browser choice. Three lecture.

CIS 190 • JavaScript Programming

3 credits

Provides students with the necessary knowledge and skills to design and develop JavaScript programs in order to build dynamic websites and applications. Prerequisite: CIS 111 and CIS 187 or instructor permission. Three lecture.

CIS 217 • JAVA Programming

3 credits

An introduction to the Java programming language. Students learn to write programs in Java with an emphasis on problem analysis, program structure, and design. Prerequisite: CIS 111 or instructor permission. Three lecture.

CIS 218 • Mobile Application Development

3 credits

Provides a comprehensive introduction to writing applications for mobile devices using the Android operating system. Prerequisite: CIS 217. Three lecture.

CIS 219 • Introduction to Human Computer Interaction

3 credits

Provides a comprehensive introduction to the field of Human-Computer Interaction (HCI), focusing on the principles, design methodologies, and technologies used to create effective and user-friendly interfaces. Students explore how people interact with computers and digital devices, the psychology behind these interactions, and how these insights inform interface design. Three lecture.

CIS 225 • C Programming

3 credits

An introduction to the C programing language. Students learn to write programs in C with an emphasis on problem analysis, program structure, and design. Prerequisite: CIS 111 or instructor permission Three lecture.

CIS 226 • C++ Programming

3 credits

An introduction to the C++ programing language. Students learn to write programs in C++ with an emphasis on problem analysis, program structure, and design. Prerequisite: CIS 111 or instructor permission. Three lecture.

CIS 227 • C# Programming

3 credits

An introduction to the C# programming language. Students write programs in C# with an emphasis on problem analysis, program structure, and design. Prerequisite: CIS 111 or instructor permission. Three lecture.

CIS 230 • Operating System Security

3 credits

Students learn how to install, configure, and administer common desktop and server operating systems and their associated applications and services with a focus on securing these systems against risks, vulnerabilities, and threats. Prerequisite: CIS 130 and CIS 161, or instructor permission. Three lecture.

CIS 231 • Digital Forensics and Investigations

3 credits

Students learn about the legal and technical aspects of Digital Forensics, including general forensic processes, imaging, hashing, file recovery, file system basics, identifying mismatched file types, reporting, and laws regarding computer evidence. Prerequisite: CIS 146 or instructor permission. Three lecture.

CIS 232 • Network Security

3 credits

Students learn the fundamental concepts and tools used to examine the various areas of network security to include secure network design and implementation, traffic analysis, intrusion detection and response, and defense against network-based attacks. Prerequisite: CIS 130 and CIS 145, or instructor permission Three lecture.

CIS 233 • Ethical Hacking

3 credits

Students learn about the ethical hacking methodology with a hands-on application of security tools to test and better secure information systems. Introduces common countermeasures that effectively reduce and/or mitigate attacks. Prerequisite: CIS 230 or instructor permission; Co-requisite: CIS 232 or instructor permission. Three lecture.

CIS 243 • Database-Driven Websites

3 credits

An in-depth study of creating dynamic database-driven websites using PHP and MySQL. Students learn how to design and create a database, PHP and MySQL programming concepts, and advanced web programming skills. Prerequisite: CIS 111 and 187, or instructor permission. Three lecture.

CIS 245 • Database Management Concepts

3 credits

Introduction to database management systems (DBMS) where students use Structured Query Language (SQL) and other management tools to define, manipulate, and retrieve data from a DBMS. Students also learn common administrative tasks related to user management, authentication, stored procedures, and backup/restore strategies. Prerequisite: CIS 105 or CIS 107 or instructor permission. Three lecture.

CIS 265 • Web Programming

3 credits

Advanced web development techniques using a variety of programming languages, frameworks, and libraries. Students enhance their skills in client-side and server-side programming. Intended for students with a solid background and understanding of web development techniques and programming languages. Prerequisite: CIS 190 or instructor permission. Three lecture.

CIS 280 • Systems Analysis and Design

3 credits

Introduction to the methodologies of systems analysis and design. Emphasizes developing interviewing skills, identifying organizational problems and objectives, analyzing and documenting systems physical modeling and design. Students gain experience in the creation of UML diagrams, a project repository, data normalization, and data flow modeling. Prerequisite: CIS 111 or instructor permission. Three lecture.

CIS 405 • Information System Management

3 credits

Examines the framework for an information system and explores how those systems support the business functions of the organization. Students assess how those systems are integrated and aid managers with decision-making for the company. Provides students with the skills necessary to understand and use information technology. Prerequisite: BUS 127 or CIS 105, and admission to a Bachelor of Applied Management degree program Three lecture.

Computer Software Applications (CSA)

CSA 105 • Microsoft Word I

1 credit

Introduction to Microsoft Word. Covers editing, formatting, creating tables and outlines, and merging data. Prepares students for the Microsoft Office Specialist certification. One lab.

CSA 110 • Microsoft Excel I

1 credit

Introduction to Microsoft Excel spreadsheet software with personal and business applications. Prepares students for the Microsoft Office Specialist certification. One lab.

Construction Technology (CON)

CON 100 • Construction Math and Safety

3 credits

Introduces principles and procedures for working safely in construction. Also focuses on basic math skills needed to calculate slope, volume, area and unit conversion. Explores OSHA 10-Hour construction safety topics. Three lecture.

CON 101 • Jobsite Layout

3 credits

Lecture of contextualized applied math topics for accurately measuring and laying out different types of construction projects, shapes, and structures. Focusing on applications of geometry and trigonometry as it applies to building layout, quality control, and site surveying. Three lecture.

CON 102 • Introduction to Construction Methods

3 credits

Introduction to principles and procedures to work safely in construction industry; construction terminology, hand tools, and power tools applications. OSHA 10 Hour construction safety topics are explored. Three lecture.

CON 105 • Engineering Principles and Construction Methods

3 credits

Examines basic engineering calculations, architectural design principles, materials used in construction, technical specifications, documents, contracts, methods and systems. Research project included. Three lecture.

CON 107 • Safety and Job Hazard Recognition

1 credit

Explores Federal Occupational Health and Safety Administration (OSHA) regulations as they pertain to the construction industry with focus on hazards in the workplace and methods to reduce work-related injuries. One lecture.

CON 111 • Plan Reading and Employment

3 credits

Introduction to basic skills of reading plans, specifications, contractual documents, communication fundamentals, and employ-ability skills as they pertain to the construction industry. Three lecture.

CON 120 • Concrete and Masonry Systems

3 credits

The theory and practice of construction work performed with mortar, brick, block (concrete masonry units), reinforced brick, reinforced concrete masonry, forming of structural concrete, and concrete placement. Additionally, explores the chemical characteristics of Portland cement-based products, common tools used, terminology, and methodologies used to work with aforementioned materials. Prerequisite: CON 107 or CON 102 or instructor permission. Two lecture; two lab.

CON 121 • Cabinetmaking I

3 credits

Covers the design and fabrication of wood and composition cabinets. Topics include: shop safety, cabinet style, materials, face frame construction, casework construction, basic cabinet joints, gluing techniques, finish preparation, and installation methods. Prerequisite: CON 102 or CON 107 or instructor permission. Two lecture; two lab.

CON 126 • Framing Systems

4 credits

Hands-on identification of different types of framing systems commonly used in the construction industry. Topics include: the components of walls, floor systems, stair layout and ceiling layout. Lecture on appropriate building codes and interpretation of construction documents as they pertain to carpentry. Prerequisite: CON 102 or CON 107 or CON 100. Two lecture; four lab.

CON 134 • Fundamentals of Plastic Welding

3 credits

Introduces theories pertaining to thermoplastics, welding techniques, plastic identification processes, fusion welding, chemical welding processes, and thermoset plastics. Prerequisite: ATO 116 or CON 100 or CON 107 or WLD 100 or instructor permission. Three lecture.

CON 140 • Computer Applications in Construction

3 credits

Computing theory and practice in computer applications for the design and construction industry. Introduction to Microsoft Excel, Word, Project, PowerPoint and/or estimating software. Explores some basics of CAD software for development of work plans. Includes basics of creating spreadsheets for estimating. Three lecture.

CON 141 • Flooring Installation I

3 credits

Covers flooring installation. Topics include interlocking, glue down vinyl, tile, and carpet. Students install on individual 8' x 8' area platforms. Two lecture; two lab.

CON 142 • Flooring Installation II

3 credits

Covers the business aspect of flooring. Topics include estimating, showroom products, customer serviceability, installation refinement techniques, and on-site flooring installation for a residence or business. Prerequisite: CON 141 Two lecture; two lab.

CON 143 • Wall Tile Installation
3 credits
Covers the installation of wall tile including waterproofing for shower walls. Students install on three-sided framed partitions. Two lecture; two lab.

CON 145 • Roofing, Thermal and Moisture Protection Systems
3 credits
Hands-on roofing materials from low-slope to steep-slope roofing systems will be explored. Varying types of exterior finishes, weatherization and waterproofing systems will be constructed. Lecture of thermal properties of materials, thermal resistance and heat transfer. Prerequisites: CON 102, CON 107, CON 100 or instructor permission. Two lecture; two lab.

CON 150 • Interior Finish Systems and Weatherization
3 credits
Explores interior finish systems: drywall, insulation, soundproofing, firestopping, textures, trims, and painting in a hands-on environment. Co-requisite: CON 100 or CON 107 or CON 102 or instructor permission. Two lecture; two lab.

CON 180 • Construction Service Learning
3 credits
Places students in construction settings to perform and learn construction related duties in accordance with their goals and objectives in a service-based project that benefits the community. Six lab.

CON 181 • Building Maintenance
3 credits
Maintenance of residential, commercial, industrial and public buildings. Discusses safety and first aid, structural parts of buildings, exteriors, doors and windows, interiors, finish carpentry, concrete/masonry, landscape maintenance, electrical and mechanical system maintenance. Two lecture; two lab.

CON 200 • Integrated Construction Management/ Design Laboratory
3 credits
Construction of mock structures including building and assemblage of components, progress reporting, safety documentation, quality control, coordination of teams among design, management and trades. Prerequisites: CON 140 or instructor permission. Two lecture; two lab.

CON 205 • Masonry Fundamentals
3 credits
Explores masonry topics ranging from basic terminology, tools used in the industry, products used for installation, construction document interpretation, and mortar mixing. Prerequisite: CON 102 or instructor permission. Two lecture; two lab. (Limited to ADOC students)

CON 206 • Masonry Installation
3 credits
Introduces masonry units (concrete masonry units and modular units), cutting techniques, layout techniques, and reinforcing materials will be examined as they pertain to the building process. Prerequisite: CON 102 or instructor permission. Two lecture; two lab. (Limited to ADOC students)

CON 207 • Residential Masonry
4 credits
Explores concepts of residential masonry products as they pertain to foundations, patios, steps, and decks. Additionally, covers topics in clay brick, stonework, and mortar. Prerequisite: CON 120 or instructor permission. Two lecture; four lab. (Limited to ADOC students)

CON 208 • Structural Masonry
4 credits
Expands upon ideas covered in CON 206; masonry units (concrete masonry units and modular units), cutting techniques, layout techniques, and reinforcing materials will be revisited as they pertain to the building process. Prerequisite: CON 206 or instructor permission. One lecture; six lab. (Limited to ADOC students)

CON 221 • Cabinetmaking II
3 credits
Advanced standard techniques of cabinetmaking. Includes shop safety for special setups, standard and customized cabinet dimensioning, detailed working drawings, specialized cabinet joinery, molding and trim applications, bending and laminating veneers and plastic laminates, design and fabrication of multi-component cabinet systems. Prerequisite: CON 121. Two lecture; two lab.

CON 222 • Cabinetmaking III
3 credits
Specialized techniques in cabinet production. Includes identification/use/care of specialized hand tools/portable power tools/machinery for mass production of cabinets, jigs and fixtures, designing and estimating materials for production cabinetry, production projects. Prerequisite: CON 221. Two lecture; two lab.

CON 228 • Electrical Systems
3 credits
Introduction to electrical systems, wiring, the National Electrical Codes, and basic electrical theories as they relate to building trades. Co-requisites: CON 100 or CON 102 or CON 107 or instructor permission. Two lecture; two lab.

CON 229 • Plumbing and Mechanical Systems
3 credits
A hands-on approach is taken for plumbing systems used in residential construction. Lecture-based approach to mechanical systems; their applications and basic theories as they relate to buildings in which they are used. Prerequisite: CON 100 or CON 102 or CON 107 or instructor permission. Two lecture; two lab.

CON 230 • Sustainable Construction

3 credits

Examines the role of professionals in the construction process to promote sustainability. Explores the impact construction activities have on: land development, material usage, energy consumption, environmental design considerations, and manufacturing processes are explored. Prerequisite: CON 102 or instructor permission. Three lecture.

CON 263 • Cost Estimating, Scheduling and Planning

3 credits

Students calculate quantities of materials used in construction projects using spreadsheets and computers. Once quantities are determined, cost and duration to time of completion are applied to each task. Prerequisite: CON 140 or instructor approval. Two lecture; two lab.

CON 265 • Construction Capstone Portfolio

2 credits

Integration of Construction process including: operations, trades (masonry, concrete, carpentry, finishes, and electrical) and management process. Prerequisites: CON 102, 111, 120, 121, 126, 145, 228, 229, or Instructors permission. One and a half lecture; one lab.

Cosmetology (COS)

COS 107 • Business Skills I

3 credits

Offers basic business skills relating to the beauty industry. Topics will include: customer service, work ethics and professionalism in the work place. One lecture, four and six-tenths lab.

COS 108 • Business Skills II

3 credits

Continuation of COS 107. Emphasis continues in further training in customer service, work ethics, and professionalism in the work place. Prerequisite: COS 107. One lecture, four and six-tenths lab.

COS 142 • Introduction to Hair Care

6 credits

Introduces students to basic hair care through live demonstrations and hands-on training in a realistic salon setting. Training will include beautification of the hair involving cutting, styling, coloring, chemical texture alteration and related theory. With completion of this course students will continue to practice on clients under instructor supervision. Prerequisites: The minimum of 16 years of age with official high school transcript with 10th grade equivalency; two English courses, one math, one science and a minimum of 10 credits, or; proof the prospective student is at least 18 years old with satisfactory proof of age is shown by government-issued driver's license or identification card, social security card, or transfer application. Eleven lab.

COS 143 • Introduction to Basic Skin Care

2 credits

Introduces students to basic skin care through live demonstrations and hands-on training in a realistic salon setting. Training will include the fundamentals in cleansing, massaging, moisturizing, skin analysis and related theory. With completion of this course students will continue to practice on clients under instructor supervision. Three and eight-tenths lab.

COS 144 • Introduction to Basic Nail Care

2 credits

Introduces students to basic nail care through live demonstration and hands-on training in a realistic salon setting. Training will include beautification of nails, massaging and moisturizing of the hands and related theory. With completion of this course students will continue to practice on clients under instructor supervision. Three and eight-tenths lab.

COS 145 • Law and Ethics for a Beauty Professional

3 credits

Overview of laws and ethics relevant to the beauty professional including Arizona State Board of Cosmetology Laws and Rules, communication skills, professional image, life skills, career opportunities and related theory. One lecture, four and six-tenths lab.

COS 146 • Scientific Concepts I

3 credits

Overview of scientific concepts relevant to the beauty professional including infection control, general anatomy, chemistry, electricity and related theory. One lecture, four and six-tenths lab.

COS 147 • Scientific Concepts II

3 credits

Continuation of COS 146. Emphasis continues on further training in infection control, general anatomy, chemistry, electricity and related theory. Prerequisite: COS 146. One lecture, four and six-tenths lab.

COS 231 • Advanced Hair Care I

3 credits

Students learn the science of healthy hair including hands-on training in shampooing, hair cutting, haircolor, chemical alternation and related theory. Students explore beauty enhancement techniques and acquire knowledge to help people look and feel more beautiful. Prerequisite: COS 142. Five and six-tenths lab.

COS 232 • Advanced Hair Care II

3 credits

Continuation of COS 231. Emphasis continues on further training in hair care with advanced techniques including conditioning treatments, highlights, wig designs, braids and related theory. Prerequisite: COS 231. Five and six-tenths lab.

COS 233 • Advanced Hair Care III

3 credits

Continuation of COS 232 concentrating on skills to offer satisfactory client services, proper communication skills and up-to-date techniques. Prerequisite: COS 232. Five and six-tenths lab.

COS 234 • Advanced Skin Care I

3 credits

Students learn the science of healthy skin including hands-on training in skin analysis, facials, masks, waxing, makeup applications and related theory. Students explore beauty enhancement techniques and acquire knowledge to help people look and feel beautiful. Prerequisite: COS 143. Five and six-tenths lab.

COS 235 • Advanced Skin Care II

3 credits

Continuation of COS 234. Emphasis continues on further training in skin care with advanced techniques including spa facials, masks, moulage makeup, false eyelash application and related theory. Prerequisite: COS 234. Five and six-tenths lab.

COS 236 • Advanced Skin Care III

3 credits

Continuation of COS 235 concentrating on skills to offer satisfactory client services, proper communication skills and up-to-date techniques. Prerequisite: COS 235. Five and six-tenths lab.

COS 237 • Advanced Nail Care I

3 credits

Students learn the science of healthy nails including hands-on training in manicures, pedicures, artificial nail enhancements and related theory. Students explore beauty enhancement techniques and acquire knowledge to help people look and feel more beautiful. Prerequisite: COS 144. Five and six-tenths lab.

COS 238 • Advanced Nail Care II

3 credits

Continuation of COS 237. Emphasis continues on further training in nail care with advanced techniques including spa manicures, spa pedicures, nail wraps, paraffin wax treatments and related theory. Prerequisite: COS 237. Five and six-tenths lab.

COS 239 • Advanced Nail Care III

3 credits

Continuation of COS 238. Concentrating on advanced nail care skills to offer satisfactory client services and up-to-date techniques. Prerequisite: COS 238. Five and six-tenths lab.

COS 240 • Prepare for Licensure

2 credits

Summarizes the fundamental knowledge of a beauty professional including self-assessments and practice exams in core domains of Cosmetology and Hairstyling. One lecture, two and eight-tenths lab.

COS 241 • Cosmetology Special Topics I

3 credits

A course designed to meet the needs of an individual Cosmetology Program completer who has an interest in a specific topic. This course is especially applicable to the occupational student who wants to specialize in training or transfer hours to another state. Prerequisite: Student must have completed 1600 hours of State Board documented cosmetology training. Five and six-tenths lab.

COS 242 • Cosmetology Special Topics II

3 credits

A continuation of COS 241. Students will continue to practice in self-directed study or an advanced project that relates to a Cosmetologist. Prerequisite: COS 241. Five and six-tenths lab.

COS 243 • Law and Ethics for a Cosmetology Educator

1 credit

Overview of legal and ethical topics relevant to the Cosmetology Educator including topics from the Arizona State Board of Cosmetology regulations, professionalism in the work place and related theory. Prerequisite: Licensed as a Cosmetologist with one year work experience form from the Arizona State Board of Cosmetology. One and nine-tenths lab.

COS 244 • Safety Concepts for a Cosmetology Educator

2 credits

Introduces students to safety concepts to be used as a potential Cosmetology Educator including infection control principles, industry safety practices and related theory. Prerequisite: COS 243. Three and eight-tenths lab.

COS 245 • Basic Teaching Skills for a Cosmetology Educator

3 credits

Designed for Cosmetology Educators focusing on classroom management including self-motivated instructors, developing organized work habits, creating a motivated classroom environment, foster learning and study skills and related theory. Five and six-tenths lab.

COS 246 • Beauty and Wellness Disciplines for a Cosmetology Educator

3 credits

Presents cosmetologists with teaching concepts relevant to becoming a Cosmetology Educator including management of a student training environment, preparing students for employment, providing an energized education environment and related theory. Five and six-tenths lab.

COS 247 • Professional Development for a Cosmetology Educator

3 credits

Covers enhanced levels of a Cosmetology Instructor's work performance including educator-to-educator relationships, educator-to-supervisor relationships, effective human relationships and related theory. Five and six-tenths lab.

Drafting (DRF)

DRF 120 • Technical Drafting I

3 credits

Basic skills for technical drafting using AutoCAD. Topics include language of industry, drafting skills, drafting office practices, theory of shape description, applied geometry, basic dimensioning, working drawings, sections and conventions, and printmaking machines. Two lecture; two lab.

DRF 130 • Architectural Drafting I

3 credits

Basic techniques and fundamentals of architectural drafting with emphasis on line work, lettering and basic technical drawing. Basic drafting skills are developed through projects devoted to acquiring knowledge of basic residential construction methods and their graphical representation. Emphasis on industry standards. Prerequisite: DRF 120 or instructor permission. Two lecture; two lab.

DRF 150 • AutoCAD I

3 credits

Introduction to drawing fundamentals, display controls, dimensioning, and Computer Aided Drafting. Two lecture; two lab.

DRF 200 • Applied Drafting and Design

2 credits

Student-designed project that applies advanced drafting and design skills. Topics include defining areas of interest, advanced sketching skills, advanced manual drafting skills, advanced AutoCAD skills, project work plans, activities and evaluation. Repeatable with different student/instructor/division director-created specific learning objective. Prerequisite: 15 credit hours of drafting courses. Four lab.

DRF 230 • Architectural Drafting II

3 credits

Covers advanced architectural drafting. Topics include site/plot plans, foundation plans, floor plans, elevations, sections, framing plans, internal elevations, electrical plans, plumbing plans, sketching, perspective drawing, shading and coloring and building codes. Prerequisite: DRF 130. Two lecture; two lab.

DRF 250 • AutoCAD II

3 credits

Overview of two-dimensional specialized techniques and continued development of AutoCAD skills. Emphasis is on advanced student project(s). Topics include advanced editing, attributes and data extraction, customizing macros and menus, tailoring menu systems, using AutoLISP for drawing automation, grouping entities into blocks, drawing enhancements, dimensioning and plotting drawings. Prerequisite: DRF 150 or instructor permission. Two lecture; two lab.

Early Childhood Development (ECD)

ECD 110 • Building Relationships with Families

1 credit

Overview of the importance of the family and early childhood professional relationship. Strategies for engaging with families and building strong relationships as a means to support children's positive growth and development. One lecture.

ECD 112 • Enhancing Family and Community Engagement

1 credit

Overview of a parent, family and community engagement framework used in early childhood systems. Reviews research and assesses the value of family engagement as a fundamental strategy to promote children's learning and healthy development. One lecture.

ECD 128 • Culture, Language and Community

1 credit

Explores how culture, language and community impact child development and learning. Reviews methods and materials that promote culturally and linguistically responsive environments and instruction in a variety of early childhood settings. One-half lecture; one practicum.

ECD 135 • Survey of Child Development

3 credits

Study of the theories of child development from the prenatal through middle childhood periods. Includes an emphasis on the interactions between biology and the environment and the influences of culture and social issues on children's health and development. Prerequisites: satisfactory placement or instructor permission. Three lecture.

ECD 141 • Healthy and Safe Early Childhood Practices

2 credits

Overview of policies and strategies that ensure children's safety, health, and well-being across settings serving children from birth through age eight. Topics include nutrition, physical activity, safe sleep, and playground practices. This course has been approved by Arizona DES to fulfill both ongoing and pre-service health and safety training requirements. One lecture; two practicum.

ECD 145 • Foundations in Early Childhood Education

3 credits

Provides an overview of early childhood education including programs, policies, and curriculum. Offers opportunities to design environments and instructional strategies using developmentally effective practices. Emphasizes play and constructivism as a means for supporting children's learning in settings serving children birth through age five. Prerequisites: satisfactory placement or instructor permission. Three lecture.

ECD 175 • Professionalism

1 credit

Overview of professional ethics and behavior within the field of early childhood, including professional development, understanding of the core knowledge and competencies of the field, and the importance of ongoing professional growth. One-half lecture; one practicum.

ECD 184 • Early Social and Emotional Development

2 credits

Overview of children's social and emotional development from birth through age eight. Explores instructional strategies and techniques to build young children's social-emotional competence, promote positive self-concepts, and support self-regulation in the early years. Emphasizes the child-adult relationship as the foundation for trusting, positive interactions with peers and adults. One lecture; two practicum.

ECD 186 • Effective Interactions for Learning

1 credit

Overview of the important role of adult-child interactions in the development of young children. Explores the topics of attachment, building warm relationships, and effective scaffolding using questioning and language strategies to promote self-regulation and learning in children ages birth-five years. One-half lecture; one practicum.

ECD 187 • Supporting STEM in Early Childhood

1 credit

Overview of integrated learning approaches to teaching young children science, technology, engineering and math (STEM) concepts. Reviews strategies and techniques for planning, developing, and implementing developmentally appropriate and effective STEM curriculum for young children birth to age five. Prerequisite: ECD 145. One-half lecture; one practicum.

ECD 188 • Policies and Procedures in Early Childhood Programs

1 credit

Overview of early childhood systems, policies, and procedures. Discussions of childcare licensure, quality early childhood programs, and other early childhood regulatory entities. One lecture.

ECD 208 • Observation and Assessment in Early Childhood

1 credit

Foundations in observing and assessing learning for the purpose of understanding development and guiding instruction for young children, birth through age eight. Covers a variety of techniques and strategies for effectively documenting learning and interpreting results. Prerequisite: ECD 135. One-half lecture; one practicum.

ECD 217 • Early Childhood Language and Literacy

1 credit

Methods and materials to support young children's emerging language and literacy skills from birth using whole child, integrated approaches to learning. Includes topics in communication, early reading and early writing. Prerequisite: ECD 145; Concurrent Requisite: ECD 290. One lecture.

ECD 222 • Introduction to Early Childhood Special Education

3 credits

Overview of legislation, policies, issues, philosophies and trends in special education with an emphasis on provisions for children birth through age eight. Includes an examination of the student's own beliefs and assumptions regarding learners with exceptionalities. Prerequisites: ECD 135 and ECD 145. Three lecture.

ECD 223 • Positive Behavior Supports

2 credits

Building on theories of social and emotional development, explores assessment and analysis of behavior for the purpose of creating positive interventions and supports. Examines environmental and developmental influences on behavior and strategies for reflecting on adults' actions to better meet children's needs. Prerequisite: ECD 135. Two lecture.

ECD 232 • Play and Learning Environments

2 credits

Examines the value of play within developmentally effective teaching environments for children birth through age eight. Emphasizes the design of indoor and outdoor learning experiences, the teacher's role in supporting children's development, and the connections between play and standards-based content knowledge in science, math, and literacy. Prerequisite: ECD 145. Two lecture.

ECD 241 • Evaluating Early Childhood Programs and Practices

2 credits

Overview of the methods for evaluating and assessing quality across early childhood programs. Explores national trends, research, policy, and practices related to program evaluation. Prerequisite: ECD 145 or EDU 200. Two lecture.

ECD 252 • Risk and Resiliency in Early Childhood

3 credits

Examines the concept of risk (biological, environmental, family mental health) and its impacts on brain development and child behavior across early childhood settings. Addresses the early childhood professional's role in building resilience through instructional design and program development. Prerequisite: ECD 135. Three lecture.

ECD 290 • Early Childhood Practicum I

1 credit

Provides a scheduled, structured, directed, supervised field experience that allows for the practice and demonstration of the knowledge, skills, and professional dispositions associated with an early childhood professional. Students engage in observation of child development and learning across a variety of settings and age groups, birth to five years. Emphasis areas: quality interactions and curriculum to support child development and learning. Two practicum.

ECD 297 • Early Childhood Education Capstone

1 credit

Provides opportunities for the student to reflect on the depth and breadth of learning across courses and practicum/field experiences. Students use self-assessment and reflection to make meaning of program and field experiences, which culminate in formal presentations that analyze individual practice and knowledge. Prerequisites: ECD 128 and ECD 135 and ECD 145 and ECD 175 and ECD 184 and ECD 187 and ECD 217 or Instructor Permission.

ECD 332 • Arts and Aesthetics in Early Education

3 credits

Explores the principles, methods, and materials for teaching young children music, creative movement, visual arts, and dramatic play through process-oriented experiences to support divergent thinking and an appreciation for aesthetics. Prepares teacher candidates to connect art education to content areas across the curriculum, including science, mathematics, social studies, and literacy. Prerequisite: Admission to a bachelor's degree program. Three lecture.

ECD 387 • STEM Instruction in the Early Childhood Classroom

3 credits

Examines the content and pedagogy of teaching scientific concepts and mathematics in preK-3rd grade classrooms. Prepares teacher candidates to plan and implement developmentally effective strategies to support the developing mathematical and scientific thinking of children as well as the strategies teachers use to assess understanding. Explores relevant mathematics and science content standards in preK-3rd grade classrooms with a focus on mathematical concepts, processes, and skills, and making connections across the STEM disciplines. Prerequisites: Admission to a bachelor's degree program, ECD 187. Three lecture.

ECD 390 • Early Childhood Practicum II

1 credit

Provides a scheduled, structured, directed, supervised field experience that allows for the practice and demonstration of the knowledge, skills, and professional dispositions associated with an early childhood professional. Students engage in observation of child development and learning across a variety of settings and age groups. Emphasis areas: PreK-3rd grade reading instruction, assessment, intervention, integrated learning, and teaching of STEM content. Prerequisite: Admission into the BAS-ECE program. Two practicum.

ECD 391 • Early Childhood Practicum III

1 credit

Provides scheduled, structured, directed, supervised field experience that allows for the practice and demonstration of the knowledge, skills, and professional dispositions associated with an early childhood professional. Students engage in observation of learning across a variety of settings and age groups. Emphasis areas: formative and summative assessment, understanding student data, integration of the arts, and differentiated instruction. Prerequisite: Admission into the BAS-ECE program. Concurrent Requisite: EDP 408.Two practicum.

ECD 400 • Navigating Early Childhood Policies and Systems

3 credits

Examines the systems and structures across educational settings that serve young children through third grade. Supports teacher candidates with building the knowledge and skills to become continuous, collaborative learners who make informed decisions using reflective and critical perspectives. Reviews the various social, legal, and environmental impacts on education and the profession. Prerequisite: Admission to a bachelor's degree program. Three lecture.

ECD 490 • Early Childhood Capstone-Experiential B-Pre-K

9 credits

Provides a culminating professional experience in a birth to Pre-K setting during which students have substantial opportunities for sustained work in a real-world setting. Offers the early childhood program candidate professional-guided, practitioner supervision while practicing skills aligned with national and state standards relevant to the age group of interest. Prerequisites: Admission into the BAS-ECE program, current fingerprint clearance on file, and completion of all other program of study coursework OR Educator Preparation Programs Dean approval. Twenty-seven practicum.

ECD 491 • Early Childhood Capstone: Experiential PreK-3

9 credits

Provides a culminating professional experience in a PreK-3rd grade setting during which students have substantial opportunities for sustained work in a real-world setting. Offers the teacher candidate professional-guided, practitioner supervision while practicing skills aligned with national and state standards relevant to early childhood teacher certification. Eligible teacher candidates may be able to complete this course option using a Student Teaching Intern Certificate (STIC). Prerequisites: Current fingerprint clearance on file (although a L1 fingerprint card is required for admission, we want to make sure it hasn't lapsed or expired between admission and capstone), completion of all BAS program of study coursework OR Educator Preparation Programs Dean approval. For STIC candidates only, 3.0 GPA and passing scores on the Early Childhood Subject Matter and Professional Knowledge exams. Twenty-seven practicum.

Economics (ECN)

ECN 211 • Principles of Macroeconomics

3 credits SUN# ECN 2201

Covers the study of the economic system as a whole, including the level of employment and diversity in income, fiscal and monetary policies, and the role of government in the economy. Also covers the economics of resource issues related to market failure and sustainability. Prerequisite: satisfactory placement. Three lecture. (8-week course)

ECN 212 • Principles of Microeconomics

3 credits SUN# ECN 2202

Covers the study of economic elements of supply and demand analysis. Also covers an examination of market structures, market allocation and externalities, labor markets and income distribution, and decision making by the individual firm. Prerequisite: satisfactory placement. Three lecture. (8-week course)

Education (EDU)

EDU 101 • Effective Tutoring

1 credit

For those who work with students as tutors, scribes or note takers. The course identifies methods and approaches to tutoring, including qualities, goals, strategies and implementation guidelines for the development of effective tutoring relationship. One lecture.

EDU 102 • Laubach Literacy Tutor Training

1 credit

The philosophy, methods, techniques and materials employed in teaching of basic reading to the non-reader, using the Laubach system of reading, as well as basic math, computer and life skills. Prerequisite: EDU 101. One lecture.

EDU 200 • Introduction to Education

3 credits

Surveys the field of education. Historical development, the requirements for admission into teaching, approaches and theory, problems of teachers, organization and administration, ethical and legal aspects and foundations of education are examined. Prerequisite: Satisfactory placement. Three lecture.

EDU 220 • Diversity in Education

3 credits

An introduction to multicultural education and the various forms of human diversity found in classrooms, schools and communities. Emphasis on the role of stereotyping and prejudice as they affect teachers and learners. Prerequisite: Satisfactory placement. Three lecture.

EDU 222 • Introduction to Special Education

3 credits

Overview of special education legislation, laws, policies, issues, philosophies, and trends from early childhood through adulthood. Emphasizes progress monitoring, planning, interventions, and assistive technology in a general education setting, while encouraging reflection on beliefs and assumptions about learners with exceptionalities. Co-requisite: ENL 101 or satisfactory placement. Three lecture.

EDU 223 • Classroom Observation Skills

1 credit

Presents techniques of classroom observation used to identify effective teaching practices. Addresses the areas related to positive outcomes in learners including learning climate, classroom management, lesson clarity, instructional variety, task orientation, student engagement, student success, and higher thought processes. Prepares teacher candidates to use classroom observation and reflective practice in PreK-12 settings. Co-requisite: ECD 135 or EDU 200. One practicum.

EDU 250 • Critical and Evaluative Reading for Educators

3 credits

Applies critical inquiry skills to varied and challenging reading materials that includes analysis, synthesis, and evaluation through written discourse. Prerequisite: ENL 101. Three lecture.

EDU 276 • Managing the Learning Environment

3 credits

Explores classroom management techniques, discipline models, student behavior and misbehavior, group dynamics, student self-motivation, and learning styles. Provides practical strategies for effective classroom management in K-8 settings and aligns with the Arizona Department of Education teaching standards for elementary education. Co-requisite: ENL 101 or Satisfactory Placement. Three lecture.

EDU 280 • Introduction to Structured English Immersion (SEI) Augmented

3 credits

Emphasis on understanding English Language Learners (ELL) in the K-12 classroom. Covers the history, culture, theory, methods and an introduction to both the English Language Proficiency (ELP) standards and the Arizona English Language Learner Assessment (AZELLA). Three lecture.

EDU 286 • Educational Technology

3 credits

A technology literacy course for current and future educators in PreK-12. Emphasizes skill development and familiarity in e-learning tools, online educational resources, developmentally effective instructional design, distance learning, and educational technology standards. Three lecture.

EDU 291 • Children's Literature

3 credits

Review of children's literature from a variety of world cultures, including application of literary criteria to folk and modern literature for children. Elementary curriculum supported and developed through literature. Prerequisite: ENL 101 or instructor permission. Three lecture.

EDU 307 • Writing and the Arts

3 credits

Overview of the development of children's writing, organization, and communication skills. Examines the developmental stages of writing and writing conventions. Addresses instructional strategies for teaching writing and composition in an integrated Language and Fine Arts curriculum. Prerequisite: EDP 302. Three lecture.

EDU 328 • Social Studies Education

3 credits

Prepares teacher candidates with the knowledge, strategies, and skills to foster a deep appreciation for social studies in elementary school students. Candidates learn to create engaging, culturally responsive, and meaningful social studies experiences that integrate the critical components of media literacy and the Arizona Social Science Standards. Prerequisite: EDP 302. Three lecture.

EDU 387 • Methods of Science and Inquiry

3 credits

Prepares elementary teacher candidates to foster a love of learning in students about science and the natural world. Addresses methods and practices for the instruction of cross-cutting concepts including scientific inquiry, Earth and space sciences, and life sciences in the elementary grades. Prerequisite: EDP 302; Concurrent Requisite: EDU 392. Three lecture.

EDU 390 • Elementary Practicum I

1 credit

Provides scheduled, structured, directed, and supervised field experience for the practice and demonstration of knowledge, skills, and professional dispositions associated with the elementary education professional. Candidates engage in observation of learning across a variety of settings and grade levels. Emphasis areas: curricular evaluation, inclusive materials, Universal Design for Learning, and differentiated instruction. Concurrent Requisite:: EDP 322. Two practicum.

EDU 391 • Elementary Practicum II

2 credits

Provides a scheduled, structured, directed, and supervised field experience that allows for the practice and demonstration of the knowledge, skills, and professional dispositions associated with an elementary education professional. Candidates engage in observation of student development and learning across a variety of K-5 settings and age groups. Emphasis areas: grade-level reading instruction, assessment, intervention, integrated learning, and teaching of Language Arts content. Prerequisite: Admission to a bachelor's degree program in education. Four practicum.

EDU 392 • Elementary Practicum III

2 credits

Provides scheduled, structured, directed, supervised field experience that allows for the practice and demonstration of the knowledge, skills, and professional dispositions associated with the elementary education professional. Candidates engage in observation of learning across a variety of settings and grade levels. Emphasis areas: formative and summative assessment, understanding student data, and teaching methods and differentiated instruction in mathematics and science. Prerequisite: Admission to a bachelor's degree program in education. Four practicum.

EDU 395 • Special Education Practicum

2 credits

Provides scheduled, structured, directed, and supervised field experience that allows for the practice and demonstration of the knowledge, skills, and professional dispositions associated with a special education professional. Students engage in observation of learning across a variety of special education settings, especially those serving students identified with mild to moderate disabilities. Emphasis areas: formative and summative assessment, modifications and accommodations, positive behavioral supports, differentiated instruction, understanding student data, and reflecting on evidence-based practices for students with disabilities. Prerequisite: Completed bachelor degree in education OR a valid teaching certificate in early childhood, elementary education, or secondary education. Four practicum.

EDU 490 • Elementary Education Capstone: K-8

9 credits

Provides a culminating professional experience in a K-8 setting during which teacher candidates have substantial opportunities for sustained work in a real-world setting. Offers the candidate a practitioner guided and supervised experience during which they practice the skills relevant to the professional standards for elementary teacher certification. Prerequisite: Admission to a bachelor's degree program in education. Twenty-seven practicum.

Educator Preparation (EDP)

EDP 301 • Foundations in Reading

3 credits

Introduces students to the fundamentals of teaching reading, writing, and spelling skills, including phonological and phonemic awareness, systematic phonics instruction, fluency, vocabulary, and comprehension with a focus on practices that are based in the science of reading instruction. Emphasizes the teaching strategies and content relevant to elementary aged students and aligned with the Arizona K-5 Reading Standards. Prerequisite: Admission to a bachelor's degree program. Concurrent Requisite: ECD 390 or EDU 391. Three lecture.

EDP 302 • Curricular Approaches to Education and Learning

3 credits

Overview of a variety of learning approaches, differentiated instruction, and evaluation of curriculum for effectiveness in the K-8 classroom. Focuses on learner-centered approaches to planning and instruction. Supports teacher candidates with implementation of curriculum using inclusive materials and Universal Design for Learning practices. Prerequisite: EDU 200 or ECD 145, and admission to an Educator Preparation Bachelor's Degree Program. Three lecture.

EDP 322 • Instructional Effectiveness for Children with Exceptionalities

3 credits

Prepares educators to successfully teach reading, writing, math, and other content areas to children with exceptionalities. Provides an overview of researched-based inclusion strategies along with practical applications to assist preservice teachers to support differentiation of educational curricula. Emphasizes identification procedures, creating Individualized Education Programs, progress monitoring, assessment, and creating inclusive environments. Infuses aspects related to culture and cultural linguistic issues throughout the course. Prerequisites: ECD 222 or EDU 222, and admission to a bachelor's degree program. Three lecture.

EDP 375 • Educational Policies, Partnerships, and Ethics

3 credits

Explores the complex systems of educational policies; develops candidates' skills in fostering effective partnerships with other educators, families, communities; and cultivates candidates' deep understanding of ethical considerations and their applications in educational settings. Prerequisite: EDU 200 or ECD 145. Three lecture.

EDP 386 • Digital Literacy in Higher Education

3 credits

Provides post-secondary educators with the skills and knowledge to enhance digital proficiency. Addresses effective and ethical integration of technology into teaching practices in the college classroom. Reviews trends in education, particularly as they relate to technology and digital platforms for learning. Prerequisite: Bachelor's degree from an accredited institution. Three lecture.

EDP 400 • Introduction to Educational Research

3 credits

Introduces students to designs, methods, and applications of educational research in early childhood settings. Students explore the concept of a teacher as a researcher and examine how research informs practice both directly and indirectly. Prerequisite: Admission to a bachelor's degree program. Three lecture.

EDP 401 • Essentials of Reading Instruction and Intervention

3 credits

Deepens teacher candidate's knowledge and skills in the foundations of science-based reading instruction. Provides content related to screening students for indicators of dyslexia based on phonological and phonemic awareness, rapid naming skills, correspondence between sounds and letters, nonsense word fluency, and sound symbol recognition. Broadens student knowledge to include reading assessment, differentiated instructional practices, and specific interventions to improve student reading proficiency, including students with reading deficiencies and characteristics of dyslexia. Prerequisite: EDP 301. Concurrent Requisite: EDU 391 or ECD 390. Three lecture.

EDP 402 • Psychology of Learning

3 credits

Prepares teacher candidates to understand the growth and development of children by examining the psychology of learning. Includes an exploration of learning theories, the application of learning theories within the classroom environment, and the cultural context of learning theories within the confines of K12 education. Prerequisite: Admission to an Educator Preparation Bachelor's Degree Program. Three lecture.

EDP 408 • Evaluating Learning Across the Curriculum

3 credits

An overview of research, policy, and best practices in using formal and informal assessment to guide instructional decisions, measure progress, and communicate with students, parents, and stakeholders. Focuses on designing and selecting valid and reliable assessment strategies as well as analyzing student data to reflect on practice and differentiate instruction. Addresses use of technology, the application of ethics, and the minimization of bias in assessment procedures. Prerequisite: ECD 208 or EDU 223 and admission to a bachelor's degree program. Three lecture.

EDP 410 • Instructional Methods for Students with Disabilities

3 credits

Provides learners with opportunities to apply knowledge of child development to design and implement Individual Education Programs (IEPs). Explores a variety of instructional theories and methods for teaching students with disabilities, and addresses student motivation and engagement to support learning and goal attainment. Prerequisite: Completed bachelor's degree in education OR a valid teaching certificate in early childhood, elementary, or secondary education. Three lecture.

EDP 412 • Special Education Classroom Management and Positive Behavior Supports

3 credits

Explores best practices of effective classroom management and individual behavior intervention strategies. Emphasizes creating proactive learning environments and addressing behavior through functional behavior analysis and positive behavioral interventions and supports. Prerequisite: Completed bachelor's degree in education OR a valid teaching certificate in early childhood, elementary, or secondary education. Concurrent Requisite: EDU 395 Special Education Practicum. Three lecture.

EDP 414 • Assessment, Evaluation, and Planning in Special Education

3 credits

Examines principles, tools, and ethical practices of assessment and evaluation for the identification and instruction of students with disabilities. Reviews various measurements including criterion- and norm-referenced achievement, adaptive behavior,

diagnostic, and intelligence tests. Addresses data analysis to drive academic and behavioral decisions, guide instructional planning, monitor progress, develop Individualized Education Program (IEP) goals, and determine student accommodations and modifications. Prerequisite: Completed bachelor's degree in education OR a valid teaching certificate in early childhood, elementary, or secondary education. Three lecture.

EDP 416 • Language Disorders and Interventions

3 credits

Reviews concepts of speech and language development and the interaction between language and learning. Provides an overview of various hearing, speech, and language disorders and the strategies that support instruction and assessment for students with speech and communication disabilities, including augmentative and assistive communication technologies. Prerequisite: Bachelor's degree in education OR a valid teaching certificate in early childhood, elementary, or secondary education. Three lecture.

Energy and Industrial Technician (EIT)

EIT 208 • Energy Generation and Distribution I

6 credits

First course in a series of four that prepares students for entry-level positions as operators of power generation, mining, water treatment, natural gas, refinery, semiconductor, petrochemical and pharmaceutical processes. Includes how electricity is generated, transmitted and distributed to the point of use. Four lecture; four lab.

EIT 211 • Energy Generation and Distribution II

6 credits

Second course in a series of four that prepares students for entry-level positions as operators of power generation, mining, water treatment, natural gas, refinery, semiconductor, petrochemical and pharmaceutical processes. Includes the following topics: valves, piping and auxiliaries, pumps, compressors, coal handling and heat exchange. Prerequisite: EIT 208 or instructor approval. Four lecture; four lab.

EIT 212 • Energy Generation and Distribution III

6 credits

Third course in a series of four that prepares students for entry-level positions as operators of power generation, mining, water treatment, natural gas, refinery, semiconductor, petrochemical and pharmaceutical processes. Includes the following topics: statistical process control, chemistry, electrical systems, instrumentation and control measurement, automatic process control, refrigeration, water and wastewater treatment. Prerequisite: EIT 211 or instructor permission. Four lecture; four lab

EIT 213 • Energy Generation and Distribution IV

6 credits

Fourth course in a series of four that prepares students for entry-level positions as operators of power generation, mining, water treatment, natural gas, refinery, semiconductor, petrochemical and pharmaceutical processes. Includes the following topics: furnaces, boilers, steam cycles and turbines, protection systems, air and water pollution controls and troubleshooting. Prerequisite: EIT 212 or instructor permission. Four lecture; four lab.

EIT 214 • Advanced Power Plant Specific Training Course

6 credits

Orientation for students in power plant specific concepts. Clearance and confined space procedures, energy conversions, steam and pressure measurements, steam generators, plant layout, pumps, condensate and feedwater systems, fuel delivery and circulating water systems. Prerequisite: EIT 212 or instructor approval. Co-requisite: EIT 213 or instructor approval. Four lecture; four lab.

EIT 216 • Natural Gas Combustion Turbine and Heat Recovery Steam Generation Theory

6 credits

Principles and applications of natural gas combustion turbines that drive generators that produce electricity. Four lecture; four lab.

Paramedicine (EMT)

EMT 101 • Emergency Medical Responder (EMR)

5 credits

Students learn fundamental skills necessary to recognize medical and trauma emergencies and initiate life-saving care until a higher level of care arrives. Successful completion allows students to take the certification exam through the National Registry of EMTs. Prerequisite: 16 years of age prior to the end of the course and possess a valid Driver's License or Arizona Driver's Permit. Four lecture; one lab; one clinical.

Before Enrolling:
To qualify for enrollment in EMT 101, students must have a negative TB test within last 6 months, immunization records (current T-DAP, MMR, Hepatitis B, Varicella, COVID, and Influenza or declinations) and proof of medical insurance. Proof to be provided to the instructor the first day of class.

EMT 104 • Healthcare Provider CPR and First Aid

0.5 credit

Designed to certify the student in CPR (Health Care Provider level) and First Aid (American Heart Association or ASHI). One-half lecture.

EMT 105 • EMR Refresher

1 credit

16-hour continuing education course that fulfils the EMT National Continued Component Program (NCCP) requirements, Local and State Requirements, and the Individual component. Prerequisites: Must be certified as an EMR and current CPR for Healthcare Provider certification, or Program Coordinator permission. 0.96 Lecture, 0.25 Lab.

Before Enrolling:
To qualify for enrollment in EMT 105, students must have a current Emergency Medical Responder certification and

Healthcare Provider CPR Card. Proof to be provided to the instructor the first day of class, or by Program Coordinator's permission.

EMT 130 • Emergency Medical Technician Preparatory Course

3 credits

Introduction to medical terminology with basic anatomy and physiology of the human body as cornerstones to providing care in the pre-hospital environment. Includes Basic Life Support at the Health Care Provider level. Prerequisite: Next Gen. ACCUPLACER Reading Score of 249 or higher.
Three lecture.

EMT 131 • Emergency Medical Technician – Basic

8 credits

Students learn skills to recognize and properly treat illness and injury in the pre-hospital setting. Successful completion of the course provides eligibility to take the certification exam through the National Registry of EMTs and apply to the Arizona Department of Health Services certification as an EMT Basic. Prerequisites: Next Generation ACCUPLACER Reading Score of 249 or higher. Current Basic Life Support Healthcare Provider. Must be 18 years of age before the end of class. Successful completion of EMT 130 Emergency Medical Technician Preparatory Course is required unless documented proof of prior experience or equivalent class and successful completion of course final or documented proof of prior experience and program coordinator permission. Eight lecture; one and one quarter clinical.

Before Enrolling:
To qualify for enrollment in EMT 131, students must have a negative TB test within last 6 months, immunization records (current T-DAP, MMR, Hepatitis B, Varicella, COVID, and Influenza or declinations) a current Healthcare CPR card, Driver's License or state ID, and proof of medical insurance. Proof to be provided to the instructor the first day of class.

EMT 133 • EMT – Basic Refresher

2 credits

34-hour continuing education that fulfills the EMT National Continued Competency Program (NCCP) core and state/local requirements. Additionally fulfills the requirements for the State of Arizona Department of Health Services' recertification as an EMCT. Prerequisite: Must be currently certified as an EMCT-B in the state of Arizona or by Program Coordinator permission. 1.4 lecture. 1.2 lab.

Before Enrolling:
To qualify for enrollment in EMT 133, students must have a current Emergency Medical Technician Basic certification and Healthcare Provider CPR Card. Proof to be provided to the instructor the first day of class, or by Program Coordinator's permission.

EMT 135 • EMT IVC

1 credit

Designed for the EMCT BASIC to develop intravenous skills, providing an enhanced level of care for improved patient outcomes. Prerequisites: Current certification as an EMCT-B in the State of Arizona. Requires written approval from the EMCT EMS provider agency and from an administrative medical director who agrees to provide medical direction. 0.5 lecture; 0.5 lab; one clinical.

EMT 175 • Advanced Emergency Medical Technician (A-EMT)

13 credits

Students learn advanced skills necessary to recognize and treat illness and injury, along with how to care for patients while transporting to appropriate facilities or until a Paramedic arrives. Successful completion of the course allows students to take the certification exam through the National Registry of EMTs and, upon passing, apply for State of Arizona certification. Prerequisites: EMT Basic certification and current CPR for Healthcare Provider certification. 6.5 lecture; one lab.

Before Enrolling:
To qualify for enrollment in EMT 175, students must have a negative TB test within last 6 months, immunization records (current T-DAP, MMR, Hepatitis B, Varicella, COVID, and Influenza or declinations) a current Healthcare CPR card, Driver's License or state ID, proof of medical insurance and an AZ DPS IVP Fingerprint Clearance Card. Proof to be provided to the instructor the first day of class.

EMT 240 • Basic Electrocardiogram (ECG) and Pharmacology

3 credits

Content includes cardiac electrophysiology, basic heart rhythms, introduction to pharmacologic management and medication calculations. Three lecture.

EMT 241 • Advanced Life Support (ALS) Refresher

3 credits

48-hour continuing education that fulfills the EMT National Continued Competency Program (NCCP) core and state/local requirements. Additionally fulfills the requirements for the State of Arizona Department of Health Services for recertification as an EMCT-P. Prerequisite: Must be certified as an EMCT-P in the state of Arizona and hold a current Basic Life Support (BLS) card, an Advanced Life Support (ACLS) card, and either Pediatric Advanced Life Support (PALS) card or Pediatric Education for Pre-Hospital Professionals (PEPP) card. Or by Program Coordinator permission. Three lecture.

Before Enrolling:
To qualify for enrollment in EMT 241, students must have current A-EMT certification and a Healthcare Provider CPR card. Proof to be provided to the instructor the first day of class or by Program Coordinator's permission.
- OR -
Students must have current Paramedic Certification, a Healthcare Provider CPR Card, Advanced Life Support card, and Pediatric Life Support (PEPP Pediatric Education for Pre-Hospital Providers) card. Proof to be provided to the instructor the first day of class or by Program Coordinator's permission.

EMT 246 • Paramedic Training I

20 credits

Develops advanced level knowledge and skills for recognition and appropriate management of illness and injury in a variety of settings. Successful completion of the course provides eligibility to take the exam through National Registry of EMTs and apply to the Arizona Department of Health Services as a Paramedic. Prerequisites: Next gen. ACCUPLACER score of 249 or higher. Successful completion of EMT 240. Arizona State certified EMCT Basic in good standing for at least one year. Current Basic Life Support Healthcare Provider Level certification. Sixteen lecture; fourteen clinical.

Before Enrolling:
To qualify for enrollment in EMT 246, students must have a negative TB test within last 6 months, immunization records (current T-DAP, MMR, Hepatitis B, Varicella, COVID, and Influenza or declinations) a current Healthcare CPR card, Driver's License or state ID, proof of medical insurance and an AZ DPS IVP Fingerprint Clearance Card. Proof to be provided to the instructor the first day of class.

EMT 247 • Paramedic Training II

22 credits

Develops advanced knowledge and skills for recognition and appropriate treatment of illness and injury in a variety of settings. Prerequisites: Next Generation ACCUPLACER score of 249 or higher. Successful completion of EMT 246. Arizona State certified EMCT Basic in good standing for at least one year. Current Basic Life Support Healthcare Provider Level certification, current Advanced Cardiac Life Support certification, and Pediatric Life Support certification. Sixteen lecture; eighteen clinical.

Before Enrolling:
To qualify for enrollment in EMT 247, students must have a negative TB test within last 6 months, immunization records (current T-DAP, MMR, Hepatitis B, Varicella, COVID, and Influenza or declinations) a current Healthcare CPR card, Driver's License or state ID, proof of medical insurance and an AZ DPS IVP Fingerprint Clearance Card. Proof to be provided to the instructor the first day of class.

EMT 251 • Instructor Strategies

1 credit

24-hour course intended for new Emergency Medical Services (EMS) instructors. Covers learning styles, techniques for classroom involvement, lesson planning, written evaluation, and familiarization with online learning platforms. Prerequisite: Must be an EMS provider in good standing with at least 1 year of current certification. One and one-eighth lecture.

EMT 260 • Critical Care for Paramedics

10 credits

An advanced training course designed to prepare licensed Paramedics and registered nurses to manage critically ill or injured patients in and out of hospital, interfacility transport, ground, rotor wing, and fixed wing environments. This program emphasizes managing complex physiology, advanced monitoring, diagnostic interpretation, and invasive critical care interventions required for high acuity transport. Prerequisites: Students must have a Next Generation ACCUPLACER score of 249 or higher within the last 5 years. Arizona State certified EMCT Paramedic or Registered Nurse in good standing for at least 2 (two) years. Current Basic Life Support Healthcare Provider Level certification, current Advanced Cardiac Life Support certification, and a pediatric advanced life support course such as Pediatric Life Support, Pediatric Education for Prehospital Professionals, or Emergency Pediatric Care certification. Arizona Department of Public Safety Fingerprint Clearance Card. Six lecture, two and a half lab, six clinical.

Before Enrolling:
To qualify for enrollment in EMT 260, students must have a negative TB test within last 6 months, immunization records (current T-DAP, MMR, Hepatitis B, Varicella, COVID, and Influenza or declinations) a current Healthcare CPR card, Driver's License or state ID, proof of medical insurance and an AZ DPS IVP Fingerprint Clearance Card. Proof to be provided to the instructor the first day of class.

English (ENL)

ENL 070 • Writing Workshop for ENL 101

1 credit

Supplemental writing course that replaces remedial coursework and provides direct support from the ENL 101 instructor for students who may need help to complete ENL 101. Concurrent requisite: ENL 101. Two lab.

ENL 101 • College Composition I

3 credits SUN# ENG 1101

A course in the basic principles of college-level reading and writing. The course includes several academic essays and a short research paper. Prerequisite: Satisfactory placement, or CCP 082. Three lecture.

ENL 102 • College Composition II

3 credits SUN# ENG 1102

A course in critical reading and writing, including literary analysis, documented critical essays, other critical writing, and a research paper. Prerequisite: 'C' or better in ENL 101. Three lecture.

ENL 109 • Technical Writing

3 credits

Surveys the basic principles of preparing reports and other work-related documents. The emphasis will be generating professional documents used in engineering, science, and business. Prerequisite: ENL 101. Three lecture.

ENL 210 • Screenplay Writing

3 credits

Students study the history, form, format and style of the screenplay genre, observe film clips; read screenplay models and movie reviews; write a movie review; and write a treatment and first act of an original screenplay script. As a final project, students read and/or direct their scripts. Three lecture.

ENL 220 • World Literature I

3 credits

A survey of world literature, ending with the Renaissance Prerequisite: Satisfactory placement. Three lecture.

ENL 221 • World Literature II

3 credits

A survey of world literature since the Renaissance Prerequisite: Satisfactory placement. Three lecture.

ENL 224 • English Literature I

3 credits

A survey of significant writers, works, and developments in English Literature from the pre-Middle Ages through the Restoration and 18th Century. Meets the common program requirements for English majors. Three lecture.

ENL 225 • English Literature II

3 credits

A survey of the significant writers, works, and developments in English Literature from the Romantic Movement to the Modern/Post-Modern period. Meets the common program requirements for English majors. Three lecture.

ENL 230 • American Literature I

3 credits

A survey of selected readings in American literature from the colonial period to 1865. Prerequisite: 'C' or better in ENL 101 or instructor permission. Three lecture.

ENL 231 • American Literature II

3 credits

A survey of readings in American literature from 1865 to the present. Prerequisite: 'C' or better in ENL 101 or instructor permission. Three lecture.

ENL 234 • Native-American Literature

3 credits

Introduction to Native-American literature, including the relationship between oral traditions and literacy fiction, drama, poetry and non-fiction writing. Prerequisite: Satisfactory placement. Three lecture.

ENL 236 • Creative Writing I

3 credits

Elements of fiction, poetry, creative non-fiction, or drama, depending upon instructor choice. Emphasis on basic rules of form, creative expression, and critical, effective revision. Three lecture.

ENL 237 • Creative Writing II

3 credits

Continuing practice in the elements of fiction, poetry, creative non-fiction, and/or drama. Emphasis on knowledge of chosen genre/sub-genre, creative expression, critical, effective revision, and submitting for publication. Prerequisite: ENL 236. Three lecture.

ENL 238 • Women's Literature

3 credits

Explores the changing roles of women in terms of culture, rhetoric, religion, education, and relationships through their writing and also examines biases and stereotypes that have defined women's roles in the past and in the present. Prerequisite: Satisfactory reading and writing placement. Three lecture.

ENL 291 • Children's Literature

3 credits

Review of children's literature from a variety of world cultures, including application of literary criteria to folk and modern literature for children. Elementary curriculum supported and developed through literature. Prerequisite: ENL 101 or instructor permission. Three lecture.

Film and Digital Video (FDV)

FDV 115 • Introduction to Graphic Communication Technology

3 credits

Introduction to the conceptualization, visualization and production of graphic communications using the computer as designer, illustrator and photographer's tool in digital applications. Two lecture; two lab.

FDV 116 • Computer Photographic Imaging

3 credits

Introduction to digital editing of images and the process of digital imaging through the use of digital editing applications. Basic foundation in the use of Adobe Photoshop software as a photographic and design tool for digital imaging. Two lecture; two lab.

FDV 118 • Two-Dimensional Computer Design

3 credits

Introduction to two-dimensional digital imaging. Basic foundation in the use of Adobe Illustrator software as an illustrator and designer's tool. Two lecture; two lab.

FDV 119 • Digital Page Layout and Design

3 credits

Introduction to digital page layout and design using industry standard layout and design software. Basic foundation in the production of professional document types using Adobe InDesign software. Two lecture; two lab.

FDV 130 • Video Production

3 credits

Study and practice of basic principles and techniques of video production: audio, lighting, camera, video recording, graphics and sets, producing, directing and field production. Two lecture; two lab.

FDV 140 • Video Editing

3 credits

Introduction to the theories, history and practices of editing. Students will work with nonlinear video editing stations to gain experience editing and learning the concepts, procedures and challenges of this art form. Two lecture; two lab.

FDV 150 • Introduction to Film

3 credits

Introduction to the history, ideology and aesthetics of film, film theory and film criticism. Prerequisite: Satisfactory placement. Three lecture.

FDV 160 • Digital Audio For Film/TV

3 credits

Practical, hands-on experience in recording and editing audio for film and digital video productions. Develops skills using microphones, digital recorders and digital audio workstations. Overview of principles of audio for motion pictures. Emphasis on how to achieve professional results in creating a soundtrack for film and television productions. Two lecture; two lab.

FDV 210 • Screenplay Writing

3 credits

Students study the history, form, format and style of the screenplay genre, observe film clips; read screenplay models and movie reviews; write a movie review; and write a treatment and first act of an original screenplay script. As a final project, students read and/or direct their scripts. Three lecture.

FDV 220 • Film Aesthetics

3 credits

Provides in-depth study of common aesthetic techniques used in the making of films and digital videos. Focus on the filmmaker's decision process and how it affects the critical reception of the final film. Prepares students to undertake their own film/video projects by introducing them to the audio-visual language of film. Prerequisite: Satisfactory placement for general education in reading and writing. Three lecture.

FDV 260 • Digital Video Production Projects

3 credits

Production of the student's own short video project. Builds and expands upon production skills learned in FDV 130 and FDV 210. Skill development in scriptwriting, camera, design, lighting, sound and the myriad skills involved in producing and directing one's own work. Prerequisite: Instructor permission. One and a half lecture; four and a half lab.

FDV 270 • Digital Video Post-Production Projects

3 credits

Post-production of student's own short video project initiated in FDV 260. Builds and expands upon post-production skills learned in FDV 140 and FDV 160. Topics include advanced non-linear video editing, advanced digital audio editing and preparing finished work for screening and distribution. Prerequisite: Instructor permission. One and a half lecture; four and a half lab.

Fire Science (FRS)

FRS 101 • Principles of Fire and Emergency Services Administration

3 credits

Overview into the organization and management of fire and emergency services departments. Emphasis is placed on fire and emergency service, ethics and leadership from the perspective of the company officer. Three lecture. Both fall and spring semesters.

FRS 103 • Firefighter I

6 credits

Covers basic firefighting skills for the new fire department recruit or individual seeking to enter the fire service workforce. Instruction follows NFPA Standard 1001 and the Arizona Center for Fire Service Excellence to become eligible for Firefighter I certification. An approved agency sponsorship is preferred, but not required. Concurrent requisite: FRS 129. Five lecture; two lab.

FRS 105 • Firefighter II

4 credits

Covers basic firefighting skills for the new fire department recruit or individual seeking to enter the fire service workforce. Instruction follows NFPA Standard 1001 and the Arizona Center for Fire Service Excellence to become eligible for Firefighter II certification. An approved agency sponsorship is preferred, but not required. Co-requisite: FRS 110. Three lecture; two lab.

FRS 110 • Hazardous Materials for First Responder

2 credits

Basic information and skills needed for appropriate response to hazardous materials emergencies. Follows state and national standards for the response, identification, safety, and containment of a hazardous materials incident. Two lecture.

FRS 126 • Rope Rescue I

1 credit

Overview of foundational techniques and concepts in fire service rope rescue. One-eighth lecture, one-fourth lab.

FRS 127 • Rope Rescue II

1 credit

Covers basic and advanced skills in technical litter evacuations in vertical environments. Prerequisite: FRS 126. One-eighth lecture, one-fourth lab.

FRS 128 • Rope Rescue III

1 credit

Covers teamwork, rescue leadership and application of all rope rescue skills in real-life exercises. Prerequisite: FRS 127. One-eighth lecture, one-fourth lab.

FRS 129 • Firefighter Fitness and Conditioning

1 credit

Overview of physical fitness and conditioning requirements for current and prospective firefighters, including conditioning techniques. Major components are fitness and workout techniques applied to performance of specific simulated firefighting tasks, individual conditioning strategies, nutritional guidelines, and mental well-being. Concurrent requisite: FRS 103 or instructor permission. Two Lab.

FRS 130 • The Incident Command System

1 credit

Overview of the Incident Command System (ICS). Meets the needs of fire officers and managers who use, deploy, implement, and/or function within an ICS. One lecture.

FRS 132 • Fire Investigation I

3 credits

This course is intended to provide the student with the fundamentals and technical knowledge needed for proper fire scene interpretations, including recognizing and conducting origin and cause, preservation of evidence and documentation, scene security, motives of the fire setter, and types of fire causes. Prerequisites: FRS 200, FRS 202, FRS 207 or instructor permission. Three lecture.

FRS 135 • Fire Protection Hydraulics and Water Supply

3 credits

Examines theoretical knowledge to understand principles of water use in fire protection and apply hydraulic principles to analyze and solve water supply problems. Prerequisite: Demonstration of a competency in high school-level algebra (or the equivalent) at a grade of "C" or better or instructor permission. Two and one half lecture; one lab.

FRS 137 • Strategies and Tactics

3 credits

Principles of fire ground control through utilization of personnel, equipment and extinguishing agents. Three lecture.

FRS 138 • Legal Aspects of Emergency Services

3 credits

An overview of federal, state and local laws that regulate emergency services, including a review of national standards, regulations and consensus standards. Three lecture.

FRS 139 • Confined Space Operations

3 credits

Overview of various types of confined space situations that a student may respond to during the course of their duties. Provides basic skills in recognizing and operating at a confined space event. Two and a half lecture; one lab.

FRS 141 • Fire Service Communication

3 credits

Overview of written and oral communication skills in the Fire Service. Students give presentations and write incident reports, daily logs, investigative documents, and personnel documents. Prerequisite: ENL 101 or instructor permission. Three lecture.

FRS 150 • Wildland Firefighter

2 credits

Overview of skills for the wildland firefighter. Topics include tools, equipment, fire behavior, safety procedures, and tactics. Leads to certification for entry-level wildland firefighter positions. Two lecture.

FRS 151 • Wildland Refresher

0.5 credits

Review of skills for the wildland firefighter. Prerequisite: FRS 150 or instructor permission. 0.4 Lecture, 0.2 Lab..

FRS 200 • Fire Behavior and Combustion

3 credits

An overview of the theories and fundamentals of how and why fires start, spread and are controlled. Three lecture.

FRS 201 • Fire Protection Systems

3 credits

Focuses on information relating to the features of design and operation of fire alarm systems. Three lecture.

FRS 202 • Principles of Emergency Services

3 credits

This course provides an overview to fire protection, career opportunities, culture and history of emergency services; organization and function of public and private fire protection services; fire departments as part of local government; laws and regulations affecting the fire service; introduction to fire strategy and tactics. Three lecture.

FRS 203 • Fire Prevention

3 credits

Summarizes the fundamental knowledge relating to the field of fire prevention. Students learn the history and philosophy of fire prevention; organization and operation of a fire prevention bureau; use and application of codes and standards; plans review; fire inspections; fire and life safety education. Three lecture.

FRS 207 • Building Construction for Fire Prevention

3 credits

This course provides the components of building construction related to firefighter and life safety. The elements of construction and design of structures are shown to be key factors when inspecting buildings, pre-planning fire operations and operating at emergencies. Three lecture.

FRS 208 • Principles of Fire and Emergency Services Safety and Survival

3 credits

Summarizes the basic principles and history related to the national firefighter life safety initiatives, focusing on the need for cultural and behavioral changes throughout the emergency services. Three lecture.

FRS 216 • Fire Officer I

3 credits

Instruction for fire service members in assigning responsibilities, coordinating tasks, initiating and executing action plans, developing and implementing policy changes, developing post-incident analyses, and performing accident investigations. Based on National Fire Protection Association 1021, Standard for Fire Officer Professional Qualifications for Fire Officer I. Prerequisites: FRS 103 and FRS 105, or instructor permission. Three lecture.

FRS 217 • Fire Officer II

3 credits

Covers the application of management skills in the fire service setting. Topics include the following: evaluating job performance; creating professional development plans; applying human resource management principles; developing policies, procedures, and budgets; applying standard purchasing procedures; producing reports; and planning for organizational change. Meets National Fire Protection Association (NFPA)1021 and

Standard for Fire Officer Professional Qualifications for Fire Officer II. Prerequisites: FRS 216 or instructor permission. Three lecture.

French (FRE)

FRE 100 • Beginning French Conversation
3 credits

Introduction to French through emphasis on phonology, basic structures and vocabulary manipulation. Three lecture.

FRE 101 • Elementary French I
4 credits SUN# FRE 1101

Focus on speaking and understanding French through an audio-aural approach comprised of dialogues, pattern drills, grammar, and situation. Reading and writing skills are introduced. Prerequisite: Satisfactory placement. Four lecture.

FRE 102 • Elementary French II
4 credits SUN# FRE 1102

Continuation of FRE 101. Emphasis continues on the four basic skills of hearing, speaking, reading and writing. Augmented basic vocabulary, new grammatical structures and increased focus on culture. Prerequisite: FRE 101. Four lecture.

Geography (GEO)

GEO 110 • World Regional Geography
3 credits

Basic physical, cultural and economic elements and their integration on a world and regional basis. Prerequisite: Satisfactory placement. Three lecture.

GEO 111 • Physical Geography
4 credits

Study of Earth's formative processes, including atmospheric, hydrologic, volcanic and glacial. The effects of the Earth's formative processes on the landscapes, climate, vegetation and soils are examined as are the impact of human activity on these processes. Prerequisite: Satisfactory placement. Three lecture; three lab.

GEO 120 • Human Geography
3 credits

Systematic study of human use of the earth; including spatial organization of economic, social, political and perceptual environments. Prerequisite: Satisfactory placement or instructor permission. Three lecture.

Geology (GLG)

GLG 101 • Introduction to Geology I – Physical Geology
4 credits SUN# GLG 1101

Physical geologic concepts and principles pertaining to Earth's structure, composition and changes. Prerequisite: Satisfactory placement. Three lecture; three lab.

GLG 102 • Introduction to Geology II – Historical Geology
4 credits SUN# GLG 1102

Examines major stages and critical events over the course of Earth's 4.5-billion-year history, with emphasis on plate tectonics, changes in climate, and the evolution of life. Investigations focus on fossils and Earth's history as revealed by the geological record. Three lecture; three lab.

GLG 110 • Natural Disasters
4 credits

Natural processes, hazards, and disasters affecting life on Earth. Topics include climate change, meteorite impacts, mass extinctions, earthquakes, landslides, tsunamis, floods, and volcanic eruptions. Prerequisite: Satisfactory placement. Three lecture; three lab.

GLG 203 • Dinosaurs
4 credits

A review of dinosaur evolution, their taxonomy, ecology, and physiology. Presents basic scientific techniques used to understand dinosaurs. Prerequisite: Satisfactory placement. Three lecture; three lab.

German (GER)

GER 101 • Elementary German I
4 credits SUN# GER 1101

Systematic approach to develop the skills of comprehension, speaking, reading, and writing. Fundamentals of grammar, basic vocabulary, and conversation. Prerequisite: Satisfactory placement. Four lecture.

GER 102 • Elementary German II
4 credits SUN# GER 1102

Emphasis continues on the four basic skills introduced in German 101: comprehension, speaking, reading, and writing. Augmented basic vocabulary, new grammatical structures, more conversation, and increased focus on culture. Prerequisite: GER 101. Four lecture.

Health and Physical Education (HPE)

HPE 101B • Beginning Yoga
1 credit

An introduction to basic yoga poses, breathing techniques, principles of relaxation and body awareness designed to increase flexibility, strength, to create better concentration and promote feelings of relaxation. Two lab.

HPE 101C • Intermediate Yoga
1 credit

Students will build upon skills learned in beginning yoga, refining postures, breathing and meditation. Pranayama techniques and intermediate level Asanas will be introduced. Discussion of yoga philosophy will be interwoven with physical practice. Prerequisite: HPE 101B or instructor permission. Two lab.

HPE 104 • Personal Health
3 credits
Students gain an understanding of health issues critical to their well-being. Including body functions in health and disease, maintaining and improving one's health, means of preventing disorders, understanding common diseases, and the importance of proper curative measures. Topics include global health issues and their comprehensive impact on society. Three lecture.

HPE 112 • Introduction to Sports Medicine
3 credits
Students learn introductory insights into the athletic training profession: emergency care, daily training room procedures, etc. Students learn prevention, recognition, evaluation, treatment and rehabilitation of athletic injuries, taping skills, and CPR skills. Three lecture.

HPE 113 • Foundations of Strength and Conditioning
3 credits
Introduction to basic strength and cardiovascular training principles including structures and function of the cardiorespiratory system and the integrated fitness assessment. Topics include the importance of core, balance, resistance, plyometric, and speed, agility and quickness trainings, and causes of symptoms of chronic health conditions. Three lecture.

HPE 116 • Introduction to Exercise Science and Physical Education
3 credits
Students learn introductory concepts to the disciplines and professions associated with exercise science/kinesiology, including an overview of historical and philosophical foundations. Three lecture.

HPE 120 • Sports Performance Training
3 credits
Students acquire basic knowledge in flexibility training, cardiorespiratory training, core training, balance training, plyometric training, and speed, agility, and quickness training. Students also learn about therapeutic exercise and interventions, pain management, and reconditioning. Three lecture.

HPE 131 • Sports Psychology
3 credits
Exploration of psychological factors that influence sport performance and coaching behaviors along with the psychological effects that sport and exercise involvement have on the participant. Includes an introduction to sport and exercise psychology, psychological principles of behavioral development, social psychological dimensions of sport and exercise, personality assessment. Three lecture.

HPE 140 • Contemporary Sports Management
3 credits
Introduces local, national, and international sport, legal issues, and ethics in sport management, and its influence on society and culture. Explores the similarities and differences in sport management practices and application. Covers the history of the sports industry, terminology, and career opportunities. Three lecture.

HPE 146 • Personal Training
3 credits
Students learn about the essentials to personal fitness training and are introduced to the human movement system, the Optimum Performance Training (OPT). Topics include assessment; exercise technique and training instruction; program design; client relations, behavioral coaching; and professional development, practice, and responsibility. Prepares students to test as a certified personal trainer. Prerequisite: HPE 113 or instructor permission. Three lecture.

HPE 157 • Kinetic Anatomy
3 credits
Provides foundational knowledge of the human movement system (kinetic chain), which includes musculoskeletal interplay. Exploration of anatomical factors that will enhance "hands-on" experiences, teaches anatomical structures, presents common anatomical conditions, and provide basic vocabulary of anatomy. Three lecture.

HPE 162 • Exercise Physiology
4 credits
Principles of exercise science applied to physical fitness. Covers major factors related to the function of the human body with emphasis placed on anatomy/physiology, exercise, and biomechanics. Three lecture; two lab.

HPE 178 • Professional Activities in Weight Training
2 credits
Fundamental methods of instructing and leading fitness activities, including strength and conditioning activities. One lecture; two lab.

HPE 179 • Professional Activities in Aerobic Training
2 credits
Fundamental methods of instructing and leading fitness activities including cardiorespiratory exercises and activities. Explains core competencies identified by professional certification agencies. One lecture; two lab.

HPE 181 • Fitness and Performance
1 credit
Students learn appropriate performance and movement standards and the role of rehabilitation in optimal performance through observations of student athletes' on-field participation. One half lecture; one lab.

HPE 200 • Rehabilitative Techniques
3 credits
Provides a basic understanding of the theory and clinical skills necessary to function as an entry-level physical therapy aide in a variety of rehabilitation settings. Three lecture.

HPE 210 • Prevention and Care of Athletic Injuries
3 credits
Covers basic knowledge and understanding of the principles of sports medicine, the care and treatment of athletic trauma, and the use of proper conditioning principles for the prevention of injury. Three lecture.

HPE 250 • Physical Therapy Technician

3 credits

Prepares students with the necessary skills and techniques to become a physical therapy technician. Students receive hands-on instruction in helping patients who are recovering from all types of injuries and illnesses. Topics include innovative orthopedic techniques, neurological and pediatric rehabilitation, pain management therapy, and rehabilitation equipment. Two and a half lecture; one lab.

Health Sciences (HES)

HES 101 • Basic Technical Mathematics

3 credits

Covers practical mathematical skills needed in a wide variety of trade and technical areas. Course includes a review of fractions, decimals, percents, measurement, basic algebra, and a brief overview of geometry and trigonometry. Prerequisite: satisfactory placement. Three lecture.

HES 102 • Health Career Occupations

3 credits

Supports discovery of career opportunities in healthcare occupations. Fosters development of critical thinking skills using problem solving models. Three lecture.

HES 103 • Direct Care Worker

4 credits

Prepares the direct care worker (DCW) to provide assistance in a home setting with the focus on skills development in performing personal care tasks and home management. Prerequisites: Satisfactory Reading placement score and current CPR card. Three lecture; two lab.

HES 109 • Phlebotomy

4 credits

Covers the theory and practice of phlebotomy. Students learn how to obtain, handle, and process specimens through various processes while maintaining patient safety and confidentiality. Prepares students for the Phlebotomy Technician Certification exam. For an additional fee, eligible students may complete the exam through National Center for Competency Testing (NCCT). Prerequisites: HES 170, current health care provider CPR/First Aid card, satisfactory placement; current negative TB skin test or negative chest X-ray; hepatitis B series, proof of immunity, or waiver; MMR and varicella immunization, proof of immunity, or waiver; be 18 years of age with high school diploma or equivalent, or instructor permission. Two lecture; four lab.

NOTE: Students completing the NPC Phlebotomy course will meet NCCT education/training eligibility requirements for Phlebotomy Technician NCPT Certification. Students must still take and pass the national exam to become certified.

HES 110 • Forensic Law Enforcement Phlebotomy

3 credits

Theory and practice of basic phlebotomy for law enforcement officers. Prepares students to obtain forensic blood specimens with venipuncture. Covers phlebotomy protocols, procedures, and techniques along with drawing, preparing, packaging, transporting, documenting, and reporting blood specimens. Prerequisites: HES 170 or EMT 131 and/or permission of Program Director/Program Coordinator. DPS Level I Fingerprint Clearance Card, current health care provider CPR card, current negative TB skin test or negative chest X-ray, hepatitis B series proof of immunity or waiver, MMR and varicella immunization proof of immunity or waiver, be 18 years of age with high school diploma or equivalent, or instructor permission. Two lecture; three lab.

HES 120 • Law and Ethics of the Health Care Professional

3 credits

Overview of medical law and ethics relevant to the health care professional, including patient consents, invasion of privacy, malpractice, government regulation, confidentiality and the environment of health care institutions. Three lecture.

HES 145 • Nutrition

3 credits

Essential nutrients and their relationship to health and the body's use of those nutrients. Includes studies of therapeutic diets and medical conditions for which they are prescribed. Discusses dietary guidelines and federal Recommended Dietary Allowance (RDA) in effective meal planning and nutritional evaluation. Three lecture.

HES 170 • Medical Terminology for Clinical Health Professionals

3 credits

Introduction to medical word roots, combining forms, prefixes, and suffixes needed to become familiar with medical terms used in healthcare settings. Three lecture.

HES 180 • Basic Pharmacology

3 credits

Body systems approach focusing on drug classifications. Includes basic math review, dosage calculations and medication administration methods. Prerequisite: HES 101 or MAT 101 or MAT 109 or higher. Three lecture.

HES 190 • Human Body in Health and Disease

4 credits

Basic concepts of human biology including anatomy, physiology, biochemistry, cytology, histology and pathology of body systems across the lifespan. Does not meet Nursing Program prerequisites. Co-requisite: HES 170. Three lecture; three lab.

HES 201 • Microbiology for Healthcare Professionals

4 credits

An introduction to microbiology in the context of a professional healthcare environment. Topics are specific to the surgical technology field and sterile processing of instruments. Provides the foundation for understanding the spread, treatment, and prevention of infectious disease. Prerequisite: HES 170. Three lecture; three lab.

History (HIS)

HIS 101 • World History: Prehistory to 1450 CE

3 credits

Survey of the rise of complex societies, the formation of classical civilizations worldwide, cross-cultural exchange, technological and environmental change, oceanic exploration and the origins of the modern world. Prerequisite: Satisfactory placement. Three lecture.

HIS 102 • World History: 1450 CE to Present

3 credits

Survey of world history from 1450 CE to the present including such topics as: empires, globalization, colonization, nationalism, slavery, exploration, global economic changes, industry, revolution and world wars. Prerequisite: Satisfactory placement. Three lecture.

HIS 105 • U.S. History to 1877

3 credits SUN# HIS 1131

Survey of the history of the United States from its beginning through the Civil War and Reconstruction. Prerequisite: Satisfactory placement. Three lecture.

HIS 106 • U.S. History Since 1877

3 credits SUN# HIS 1132

Survey of the history of the United States from the post-Civil War Reconstruction period to the present. Prerequisite: Satisfactory placement. Three lecture.

HIS 110 • Southwestern History

3 credits

History of the U.S. Southwest with an emphasis on the history of Arizona, moving from prehistory to Puebloan and other Native American cultures, the arrival of the Spanish, Americans and 20th century developments. Prerequisite: Satisfactory placement. Three lecture.

HIS 114 • Introduction to Mexican-American History

3 credits

Covers Mexican-American life in historical context since the Spanish Conquest in the 1500s. Includes defining Mexican-American ideologies and realities from an interdisciplinary perspective. Also includes Mexican-American history and culture within the world systems of Native Americans, New Spain, Mexico and the United States. Prerequisite: Satisfactory placement. Three lecture.

HIS 115 • Navajo History

3 credits

Examines Diné history beginning with anthropological theories about prehistoric migrations to and acculturation in the Southwest, later European contact and ending with current events. Includes an overview of legal, judicial and governmental issues and interrelationships. Prerequisite: Satisfactory placement. Three lecture.

HIS 155 • European History to 1750

3 credits

Traces the origin and development of Western Europeans and their institutions from prehistory through the Enlightenment. Prerequisite: Satisfactory placement. Three lecture.

HIS 156 • European History since 1700

3 credits

Traces the origin and development of Western Europeans and their institutions and ideas from the Enlightenment to the present. Prerequisite: Satisfactory placement. Three lecture.

HIS 201 • History of Women in America

3 credits

Thematic survey of women's lives in North America with an emphasis on the impact of gender across lines of race, ethnicity, religion and nationality. Prerequisite: Satisfactory placement. Three lecture.

HIS 210 • Route 66 in Arizona: Historic Arizona Pathway

3 credits

Students explore the geographic, demographic, economic, and cultural history of Route 66 in northeastern Arizona and the nation. Prerequisite: Satisfactory placement. Three lecture.

Honors Colloquia (HON)

HON 101 • Honors Colloquium I

HON 102 • Honors Colloquium II

HON 201 • Honors Colloquium III

HON 202 • Honors Colloquium IV

1 credit each

The Honors Colloquium is the academic component of the NPC President's Scholars Program. These are theme-based courses designed to enhance critical inquiry of a particular theme from a wide variety of academic viewpoints. Each course is one lecture. HON 101 & 201 are fall semester; HON 102 & 202 are spring semester. (Enrollment restricted to NPC President's Scholars.)

Human Development (HDE)

HDE 100 • Career Awareness and Exploration

3 credits

Overview of approaches to career exploration. Topics include Northland Pioneer College academic requirements, career information research, career and educational plan development, decision-making, and values clarification. Standardized assessments help students determine occupational interests, aptitudes, and personalities. Three lecture.

HDE 103 • Workforce Readiness I

2 credits

Provides instruction and practice with workforce skills in three key subject areas: Reading for Information, Applied Mathematics, and Locating Information. Also instructs in the practice of Work Discipline, Teamwork, Managerial Potential, and Customer Service. Includes Arizona Career Readiness Certification preparation and assessment. One lecture; two lab.

HDE 104 • Workforce Readiness II

2 credits

Advanced workforce skills in three key subject areas: Reading for Information, Applied Mathematics, and Locating Information plus skills in Customer Service, Problem Solving and Critical Thinking. Emphasis is placed on developing a functional Resume and refining interview skills Prerequisite: Satisfactory placement. One lecture; two lab.

HDE 105 • Success Strategies for College

3 credits

Introduces students to college life with a focus on general skills for success. Students learn to access a variety of resources that facilitate academic success, persistence and critical thinking skills. Three lecture.

HDE 106 • Workforce Skills I

3 credits

Enhances soft skills necessary for success in the workplace. Instruction and practice are provided in the areas of Reading for Information, Applied Mathematics, and Locating Information, as they are applied directly in the workplace. Two lecture; two lab.

HDE 107 • Workforce Skills II

3 credits

Advanced workforce skills in three key subject areas: Reading for Information, Applied Mathematics, and Locating Information plus skills in Customer Service, Problem Solving and Critical Thinking. Emphasis will be placed on developing a functional Résumé and refining interview skills. Prerequisite: Successful completion of CCP 106/HDE 106 or CCP 103/HDE 103 or instructor permission. Two lecture; two lab.

HDE 111 • College Readiness I

1 credit

Introduces early college students to effective study skills and tools that support success in college courses. Provides guidance and support to fully develop academic and life skills that promote learning, understanding, critical thinking, and perseverance to increase college success. One lecture.

HDE 112 • College Readiness II

1 credit

Introduces early college students to effective study skills and tools that support success in college courses. Reviews strategies and expectations of college level reading and writing, including the use of credible sources and proper citations. One lecture.

HDE 113 • College Readiness III

1 credit

Introduces early college students to effective study skills and tools that support success in college courses. Provides guidance and resources for school and life balance, physical and mental health, cultural competence, college and career planning, degree options at NPC, transfer possibilities to Arizona public universities, goal setting, and scholarship options. One lecture.

HDE 114 • College Readiness IV

1 credit

Introduces college students to effective study skills and tools that support success in college courses. Provides guidance and resources in financial literacy for college, including creating a budget, completing the FAFSA application for Federal Student Aid, and identifying and describing the various types of federal financial aid. One lecture.

Humanities (HUM)

HUM 150 • Humanities in the Western World I

3 credits

A critical reading/writing/thinking-centered, integrated humanities course, emphasizing landmarks in the cultural heritage of Western civilization from classical Greece to the Renaissance. Prerequisite: Satisfactory placement. Three lecture.

HUM 151 • Humanities in the Western World II

3 credits

A critical reading/writing/thinking-centered, integrated humanities course, emphasizing landmarks in the cultural heritage of Western civilization from the Renaissance to the present. Prerequisite: Satisfactory placement. Three lecture.

Industrial Arts (INA)

INA 103 • Furniture Making I

3 credits

Design, fabrication and finishing of basic types of wood furniture explored. Includes: shop safety, materials, tools, project design and planning. Furniture components, dimensioning, joinery, assembly and surface preparation demonstrated. Two lecture; two lab.

INA 104 • Furniture Making II

3 credits

Advanced course in design, fabrication/production, preparation and finishing of custom wood furniture. Prerequisite: INA 103. Two lecture; two lab.

INA 105 • Woodworking I

3 credits

Introduction to basic materials, tools and techniques to produce wood projects. Topics include shop safety, use and care of hand tools/portable power tools/woodworking machinery, designing and drawing wood projects, common wood identification and selection, surfacing/jointing/cross cutting/ ripping lumber, dado and rabbet techniques, fasteners, clamping, gluing, joinery, assembly, surface preparation and finishing. Two lecture; two lab.

INA 106 • Woodworking II

3 credits

Overview of the materials, tools, and techniques used to produce wood projects at an intermediate level. Covers the use and care of specialty woodworking power tools and machinery. Shop safety is covered for all stages of project designs from drawings to lumber identification to joinery and finishing. Prerequisite: INA 105. Two lecture; two lab.

INA 205 • Woodworking III

3 credits

Forming and joining processes for wood projects. Topics include lathe safety, center to center turned pieces, faceplate turnings, advanced router applications, shaper safety, piecework production, custom moldings and trim production, parquetry and inlays, exotic wood identification and utilization and alternate methods of finishing. Prerequisite: INA 106. Two lecture; two lab.

INA 206 • Woodworking IV

3 credits

Production woodworking. Topics include project selection, production planning, replication methods for radial arm saw/ table saw/band saw/lathe/shaper/portable power tools, jig design and manufacture, fixture design and manufacture, service of woodworking portable power tools and machinery, alignment techniques, shop layout for production and finish matching and control. Prerequisite: INA 205. Two lecture; two lab.

Industrial Technology Trades (ITT)

ITT 100 • Craft Core Skills

4 credits

Introduction to the industrial workplace. Covers jobsite safety, construction mathematics, hand and power tools, construction and industrial drawings, basic rigging, and material handling. Students also learn basic communication and employability skills. Three lecture; two lab.

ITT 101 • Electrical, Instrumentation and Mechanical Fundamentals I

3 credits

Develops knowledge and skills required of Certified Electrical and Instrumentation or Mechanical Technician. Covers orientation and tools of the trade, craft-related mathematics, and pumps, valves, drivers & lubrication. Co-requisite: ITT 100. Two lecture; two lab.

ITT 102 • Electrical, Instrumentation and Mechanical Fundamentals II

3 credits

Develops knowledge and skills required for a Certified Electrical and Instrumentation or Mechanical Technician. Covers pumps and drivers, valves, introduction to test instruments, material handling and rigging, mobile support equipment and lubrication. Sets the foundation for a more detailed study in the trade of choice. Co-requisite: ITT 101. Two lecture; two lab.

ITT 110 • Power Industry Fundamentals and Safety

2 credits

Prepares trainees to enter the electrical energy production and distribution field. Covers the methods by which electricity can be produced, including fossil fuels, nuclear energy, and renewable energy. Students complete the 10-hour Occupational Safety and Health Administration (OSHA) certification and Managing Electrical Hazards curriculum. Two lecture.

ITT 113 • Electrical and Instrumentation I

3 credits

Develops the knowledge and skills required of Certified Electrical and Instrumentation Technician. Covers industrial safety for E&I technician, electrical theory, hand bending, tubing, conductors, and cables. Prerequisite: ITT 102 Two lecture; two lab.

ITT 114 • Electrical and Instrumentation II

3 credits

Develops the knowledge and skills required of a Certified Electrical and Instrumentation Technician. Covers electrical and instrumentation test equipment, flow, pressure, level and temperature measurement and control, clean, purge and test practices and, instrumentation drawings and documents. Co-requisite: ITT 113 Two lecture; two lab.

ITT 131 • HVAC I

3 credits

Introduces the basic principles of HVAC technology and operation. Covers trade mathematics, basic electricity, and cooling system technology and operation. Co-requisite: ITT 100. Two lecture; two lab.

ITT 132 • HVAC II

3 credits

Covers the fundamentals of heating and air distribution systems. Topics include copper tubing soldering, brazing, carbon steel threading, and grooved systems joining. Co-requisite: ITT 131. Two lecture; two lab.

ITT 133 • HVAC III

3 credits

Provides HVAC training covering alternating current, compressor, refrigerants and oils, leak detection, and system evacuation, recovery, and charging. Prerequisite: ITT 132. Two lecture; two lab.

ITT 134 • HVAC IV

3 credits

Provides HVAC training covering heat pump installation and control, basic maintenance, chimneys, flues, vents, and duct systems. Additional topics include commercial airside systems, air quality equipment, and hydronic systems. Co-requisite: ITT 133. Two lecture; two lab.

ITT 153 • Mechanical Maintenance I

3 credits

Develops knowledge and skills required of certified industrial maintenance mechanics. Topics include basic layouts, pipes, valves, bearings, and low-pressure steam systems. Prerequisite: ITT 102. Two lecture; two lab.

ITT 154 • Mechanical Maintenance II

3 credits

Develops the knowledge and skills required of certified industrial maintenance mechanics. Topics include high pressure steam systems and auxiliaries, distillation towers and vessels, heaters, furnaces, heat exchangers, cooling towers, fin fans, and tube work. Co-requisite: ITT 153. Two lecture; two lab.

ITT 171 • Alternative Energy I

3 credits

Introduction to alternative energy. Covers the growing need for alternative energy along with its primary sources including biomass, nuclear, solar, and wind. Co-requisites: ITT 100 and ITT 110. Three lecture.

ITT 172 • Alternative Energy II

3 credits

Completes the introductory material on nuclear energy and discusses its future in power generation. Covers solar photovoltaic power and wind energy. Prerequisite: ITT 171. Two lecture; two lab.

ITT 215 • Electrical and Instrumentation III

3 credits

Develops the knowledge and skills required of certified Electrical and Instrumentation Technician. Covers hazardous locations, electronic components, controls, E & I drawings, distribution, transformers, conductors, and grounding. Prerequisite: ITT 114. One and one half lecture; three lab.

ITT 216 • Electrical and Instrumentation IV

3 credits

Develops the knowledge and skills required of Certified Electrical and Instrumentation Technicians. Covers grounding, tubing layout, machine bending, controls, and motor operated valves. Co-requisite: ITT 215. Two lecture; two lab.

ITT 217 • Electrical and Instrumentation V

3 credits

Provides knowledge and skills required of a Certified Electrical and Instrumentation Technician. Covers standby and emergency equipment, basic process control elements, transducers and transmitters, instrumentation calibration and configuration, pneumatic control valves, actuators and positioners, and loop checks. Prerequisite: ITT 216. Two lecture; two lab.

ITT 218 • Electrical and Instrumentation VI

3 credits

Provides knowledge and skills required of a Certified Electrical and Instrumentation Technician. Covers loops, data networks, Programmable Logic Controllers (PLCs), and Distributed Control Systems (DCS). Co-requisite: ITT 217. Two lecture; two lab.

ITT 235 • HVAC V

3 credits

Develops a deeper understanding of HVAC principles and practices. Covers fasteners, hardware and wiring terminations, control circuits, motors, cooling systems, and gas heating systems. Prerequisite: ITT 134. Two lecture; two lab.

ITT 236 • HVAC VI

3 credits

Advanced HVAC preparation for working with oil heating, oil heating accessories, and other heating and refrigeration systems. Covers customer relations.. Co-requisite: ITT 235. Two lecture; two lab.

ITT 237 • HVAC VII

3 credits

Advanced HVAC preparation for water treatment. Covers energy conservation, building management, air quality and balance, start-up and shut-down systems, and construction drawing applications. Prerequisite: ITT 236. Two lecture; two lab.

ITT 238 • HVAC VIII

3 credits

Conclusion of the HVAC technician series. Covers the designs of commercial and industrial refrigeration systems and alternative and specialized heating and cooling systems. Additionally prepares students for crew leadership. Co-requisite: ITT 237. Two lecture; two lab.

ITT 255 • Mechanical Maintenance III

3 credits

Develops the knowledge and fundamental skills required of certified industrial maintenance mechanics. Topics include advanced trade mathematics, precision measuring tools, bearings, and couplings. Prerequisite: ITT 154. Two lecture; two lab.

ITT 256 • Mechanical Maintenance IV

3 credits

Develops the knowledge and fundamental skills required of Certified Industrial Maintenance Mechanics. Topics include setting baseplates and pre-alignment, conventional alignment, installing belt and chain drives, and installing mechanical seals. Co-requisite: ITT 255. Two lecture; two lab.

ITT 257 • Mechanical Maintenance V

3 credits

Develops the knowledge and fundamental skills required of certified industrial maintenance mechanics. Topics include preventive maintenance, advanced blueprint reading, pneumatic systems, and reverse alignment. Prerequisite: ITT 256. Two lecture; two lab.

ITT 258 • Mechanical Maintenance VI

3 credits

Develops the knowledge and fundamental skills required of certified industrial maintenance mechanics. Topics covered include reverse alignment, laser alignment, supervisory skills, troubleshooting, and repairing pumps and gearboxes. Co-requisite: ITT 257. Two lecture; two lab.

ITT 271• Introduction to Solar Photovoltaics

3 credits

An introduction to solar photovoltaics. Covers the basics of solar power generation and the harnessing and transmission of solar energy for domestic and commercial uses. Helps prepare students for the North American Board of Certified Energy Practitioners (NABCEP) Photovoltaics Associates Exam. Prerequisite: ITT 171. Two lecture; two lab.

ITT 281 • Wind Turbine Maintenance I

3 credits

Covers the fundamentals of wind energy generation and safety practices. Topics include climbing towers, electrical theory, basic electrical circuits, electrical test equipment, and wiring. Prerequisite: ITT 100 and ITT 110. Two lecture; two lab.

ITT 282 • Wind Turbine Maintenance II

3 credits

Covers advanced principles of wind energy. Topics include alternating current, three phase systems, circuit breakers and fuses, switching devices, power distribution systems, fasteners, bearings, lubrication, and hydraulic systems. Prerequisite: ITT 281. Two lecture; two lab.

Information and Communication Technology (ICT)

ICT 095 • Skills for Online Learning

0.5 credit

Examination and practice of rudimentary skills necessary f or successful online learning. One-quarter lecture; one-half lab.

ICT 096 • Teaching Online Learning

1 credit

Prepares students to teach ICT 095; covers rudimentary skills necessary for successful online learning and teaching. One-half lecture; one lab.

Instructional and Professional Development (IPD)

IPD 095 • Designing Accessible Digital Material

1 credit

Provides foundational knowledge and practical skills necessary to design and evaluate accessible digital material including Open Educational Resources. One lecture.

IPD 275 • Instructional Skills Workshop

2 credits

Review of basic ideas regarding teaching and current instructional practices. Participants work closely with peers to explore individual differences in contemporary learning environments, implement inclusive teaching and facilitation practices, and experiment with new instructional strategies, technologies, and engagement techniques.

Languages (LAN)

LAN 160 • Beginning American Sign Language

3 credits

Emphasis on learning of the language of signs and cultural information about the people who use American Sign Language (ASL). Three lecture.

LAN 161 • Intermediate American Sign Language

3 credits

Continuation of Beginning American Sign Language. Emphasis on learning sign language and cultural information about the people who use American Sign Language (ASL). Prerequisite: LAN 160. Three lecture.

LAN 171 • Navajo I

4 credits

Introduction to the Navajo language, with emphasis on developing the skills of listening, speaking, reading and writing. Stress on basic grammar, pronunciation, vocabulary and culture. Four lecture.

LAN 172 • Navajo II

4 credits

Continuation of Navajo I. Emphasis on the vocabulary, verbs and sentence structures commonly used in the Navajo language. Prerequisite: LAN 171. Four lecture.

LAN 201 • Navajo III

4 credits

Introduces recipes for traditional food and the significance of the nutritional value. Identifies titles of people who are involved in educational circles. Includes vocabulary regarding games and traditional and nontraditional occupations. Encourages using the Navajo language between students and the instructor. Prerequisite: LAN 172. Four lecture.

LAN 202 • Navajo IV

4 credits

Extension of LAN 201 involving a variety of writing and oral activities covering the Navajo verb structure. Mastering a variety of Navajo words and writing complex sentences. All instruction and interaction is in Navajo, except when making connections with other languages. Prerequisite: LAN 201. Four lecture.

LAN 260 • Advanced American Sign Language

3 credits

Advanced emphasis on learning the language of signs and cultural information about the people who use American Sign Language (ASL). Prerequisite: LAN 161. Three lecture.

LAN 261 • American Sign Language Grammar/Culture

3 credits

A comprehensive evaluation of syntax, grammar, and culture related to American Sign Language. Includes an emphasis on linguistic, social, educational, and political issues in deaf culture. Special emphasis on the cultural and philosophical attitudes shared with other minority groups. Prerequisite: LAN 161. Three lecture.

LAN 262 • Conversational American Sign Language

3 credits

Strengthens student's ability to communicate using American Sign Language. Helps build vocabulary. All work is given without verbal instruction. Prerequisite: LAN 260. Three lecture.

Mathematics (MAT)

MAT 019 • MAT 109 Workshop

1 credit

Supplemental course for students who desire additional support and instruction in successfully completing MAT 109. Concurrent requisite: MAT 109. Two lab.

MAT 052 • MAT 152 Workshop

1 credit

Supplemental course for students who desire additional support and instruction in successfully completing MAT 152. Concurrent requisite: MAT 152. Two lab.

MAT 101 • Basic Technical Mathematics

3 credits

Covers practical mathematical skills needed in a wide variety of trade and technical areas. Course includes a review of fractions, decimals, percents, measurement, basic algebra, and a brief overview of geometry and trigonometry. Prerequisite: satisfactory placement. Three lecture.

MAT 103 • Business Mathematics

3 credits

An introduction to the practice in mathematics of fundamental business operations and applications including payroll, finance, interest, loans, and investments. Prerequisite: satisfactory placement. Three lecture.

MAT 109 • Algebra I: Introductory

3 credits

An overview of the fundamental skills of arithmetic and algebra, using techniques for handling algebraic expressions and solving linear equations/inequalities, with an emphasis on developing problem-solving strategies when solving applications. Prerequisite: satisfactory placement. Three lecture.

MAT 112 • Algebra II: Intermediate

3 credits

Extends the understanding of basic algebraic concepts and skills with an emphasis on factoring, exponents, complex numbers, operations of rational and radical expressions, and solving techniques for applications on quadratic, rational, exponential, and logarithmic equations. Prerequisite: MAT 109 or satisfactory placement. Three lecture.

MAT 142 • College Mathematics with Contemporary Applications

3 credits SUN# MAT 1142

An emphasis on developing quantitative skills and reasoning abilities covering management science, statistics, data analysis, probability, and social choice Prerequisite: MAT 109 or satisfactory placement. Three lecture.

MAT 152 • Advanced Algebra

3 credits SUN# MAT 1151

Algebraic concepts with an emphasis on solving real-life applications that includes a review of basic algebra, equations, inequalities, functions, polynomials, rational, radical, exponential and logarithmic functions as well as sequences, series and combinatorics. Prerequisites: MAT 112 or satisfactory placement. Three lecture.

MAT 160 • Introduction to Statistics

4 credits

Overview of statistical methods used in collecting, tabulating, analyzing, and presenting data. Topics include frequency distributions, measures of central tendency, elementary probability, statistical inference, ANOVA, and statistical software. Prerequisites: MAT 152 or Instructor's permission. Four lecture.

MAT 161 • Algebra-based Mathematics for Elementary Teachers I

3 credits

Topics include teaching critical thinking skills, problem solving, mathematical algorithms, number theory and proportional reasoning. Prerequisites: MAT 142 or MAT 152. Three lecture.

MAT 162 • Algebra-based Mathematics for Elementary Teachers II

3 credits

Topics include teaching measurement, analyzing data, algebra, plane and coordinate geometry, probability and statistics. Prerequisite: MAT 161. Three lecture.

MAT 189 • Pre-Calculus Algebra/Trigonometry

3 credits

Algebraic and trigonometric concepts with an emphasis on solving real-life applications that includes trigonometric functions, analytic trigonometry, vectors, systems of equations and inequalities, matrices and analytic geometry. Prerequisites: MAT 152 with "C" or better or satisfactory placement. Three lecture.

MAT 211 • Technical Calculus

4 credits SUN# MAT 2212

Foundations of differential and integral calculus that includes applications in business, management, economics, life science, and social science. Topics include applications of functions, derivatives, exponential and logarithmic functions, integration, and multivariate calculus. Prerequisite: MAT 152. Four lecture.

MAT 221 • Calculus I

4 credits SUN# MAT 2220

An introduction to limits, continuity, differential and integral calculus of single variable functions and related applications. Prerequisite: MAT 189. Four lecture.

MAT 231 • Calculus II

4 credits SUN# MAT 2230

Topics include integration of proper and improper integrals with applications in geometry, science, engineering, mathematical modeling with differential equations, infinite series and analytic geometry. Prerequisite: MAT 221. Four lecture.

MAT 241 • Calculus III

4 credits SUN# MAT 2241

Topics include three-dimensional space, vector-valued functions, partial derivatives, multiple integrals and topics in vector calculus. Prerequisite: MAT 231. Four lecture.

Mathematics for Educators (MTE)

MTE 101 • Mathematics Literacy for Early Childhood Educators

3 credits

Covers the philosophy, methods, techniques, and materials employed in mathematics instruction of young children. Reviews math skills such as counting and cardinality, operations and algebraic thinking, number and operations in base ten, measurement and data, and geometry to help early childhood teacher candidates problem-solve and develop their own math literacy. Provides teacher candidates with the content knowledge and skills required to design effective, differentiated, instructional strategies aligned with PreK-3rd grade mathematics standards. Three lecture.

MTE 301 • Methods and Mathematical Practices for K-8 Teaching

3 credits

Covers the philosophy, methods, and materials employed in mathematics instruction in K-8 classrooms. Reviews relevant mathematics skills to help teacher candidates problem-solve and develop their own math literacy. Provides teacher candidates with the content knowledge and skills required to design effective, differentiated instructional strategies aligned with K-8 Arizona mathematical standards. Prerequisite: MAT 162. Three lecture.

Medical Assistant (MDA)

MDA 124 • Clinical Procedures I

5 credits

Theory and skill development of clinical procedures, includes infection control, vital signs, patient history, physical exam, positioning and draping, patient education and assisting in various medical specialties. Prerequisites: BIO 160 or HES 190; HES 170. Three lecture; six lab.

MDA 125 • Clinical Procedures II

5 credits

Theory and skill development of clinical procedures. Dosage calculation, medication administration, medical asepsis, sterilization and disinfection, electrocardiograms, minor surgery, office lab testing and career skills and development. Prerequisites: MDA 124; EMT 104 (or equivalent); HES 101 or MAT 101 or MAT 109 or higher. Co-requisites: BUS 119, HES 180. Three lecture; six lab.

MDA 126 • Medical Assistant Externship

4 credits

Paid or unpaid internship in an ambulatory healthcare setting performing administrative/clinical and phlebotomy procedures. Includes comprehensive review for RMA, NCMA and NCCT certification exams. Prerequisites: Must have completed MDA 125 with grade of "C" or better no earlier than the previous academic year or instructor permission, One lecture; nine clinical.

Before Enrolling:
Proof of required immunizations, (HEP B, MMR, and Varicella), current negative TB test, Health Care Provider CPR/First Aid card, and DPS Level 1 Fingerprint Clearance Card. A COVID-19 vaccination and/or Flu vaccination, or clinical agency approved waiver/declination may be required.

Music (MUS)

MUS 100 • Northland Master Chorale

1 credit

Mixed-voice choral ensemble focused on the learning and performance of traditional choral repertoire. Requires diligence in learning music and in collaborating with fellow choir members. Course develops healthy vocal production and utilizes auditory and music reading skills. For first-year choral students. Instructor permission required. May be repeated for credit. Prerequisite: Instructor permission. Two lab.

MUS 118 • Vocal Performance Techniques

2 credits

Focus on the performance of vocal jazz repertoire in mixed ensembles. Emphasis on learning music, minor research of pieces and public performance. Enrollment requires small audition and instructor permission. May be repeated for credit. Prerequisite: Instructor permission; concurrent enrollment with MUS 100. One lecture; two lab.

MUS 121 • Soundcheck

1 credit

Vocal jazz and a cappella ensemble focused on learning and performance of contemporary, jazz and pop music. Participation requires a flexible schedule, travel as part of performance tours, diligence in learning music and cooperative collaboration. May be repeated for credit. Prerequisite: Audition and instructor permission required. Two lab.

MUS 123 • Musical Theatre Ensemble

2 credits

Ensemble that performs smaller contemporary musical theatre productions, revues and song cycles. Features individual vocal coaching and increased solo opportunities. Requires diligence in learning music, developing vocal capabilities and working together with fellow ensemble members. May be repeated for credit. Prerequisite: Audition and instructor permission required One lecture; two lab.

MUS 129 • Vocal Ensembles

1 credit

Offers opportunities for vocalists to sing solos and form duets, trios, sextets, octets and other mixed vocal ensembles. Provides opportunities for performances and personal enjoyment. May be repeated for credit. Prerequisite: Instructor permission.

MUS 130 • Instrumental Ensembles

1 credit

Opportunities for instrumentalists to form string, brass, and woodwind combinations. May be repeated for credit. Prerequisite: Audition required. Two lab.

MUS 135 • Music Theory I

3 credits

Beginning intensive study of fundamentals of music and materials. Includes written exercises, original writing and the analysis of musical examples. Also covers beginning writing in four-part choral texture, structure of tonality, doubling and spacing of triads in root position and inversions and cadences. Three lecture.

MUS 136 • Music Theory II

3 credits

Continuation of MUS 135 including intermediate writing in four-part choral textures: non-harmonic tones, melodic harmonization, instrumental styles, seventh chords, borrowed chords, and secondary dominants. Prerequisite: MUS 135. Must be taken concurrently with MUS 138. Three lecture.

MUS 137 • Ear Training I

1 credit

Includes sight-singing, dictation, keyboard exercises, and related skills, all designed to develop the student's musical ear to the highest degree possible. Coincides with Music Theory I. Two lab.

MUS 138 • Ear Training II

1 credit

Continuing sight-singing, dictation, keyboard exercises, and related skills designed to develop the student's musical ear to the highest possible degree. Course coincides with Music Theory II. Prerequisite: MUS 137. Two lab.

MUS 150 • Music Appreciation

3 credits

A nontechnical introduction to elements of music and music composers of the Medieval, Renaissance, Baroque and Classical eras. Prerequisite: Satisfactory placement. Three lecture.

MUS 155A • Music Applied – Voice

1 credit

Instructor works one-on-one with vocalist to improve the fundamentals of singing and apply them to vocal performance. Other topics covered are foreign language, diction and proper vocal technique. Prerequisite: Audition and instructor permission. One credit equals a 30-minute lesson. May be repeated for credit.

MUS 155B • Music Applied – Piano

1 credit

Piano lessons, depending on the student's playing ability. Prerequisite: Instructor permission. One credit equals a 30-minute lesson. May be repeated for credit.

MUS 155C • Music Applied – Guitar

1 credit

Lessons on the guitar, depending on the student's abilities. Prerequisite: Instructor permission. One credit equals a 30-minute lesson. May be repeated for credit.

MUS 155D • Music Applied – French Horn

1 credit

Focuses on the fundamentals of French Horn performance as applied to solo, chamber and large ensemble playing. Prerequisite: Audition and instructor permission. One credit equals a 30-minute lesson. May be repeated for credit.

MUS 155E • Music Applied – Trumpet

1 credit

Focuses on the fundamentals of trumpet performance as applied to solo, chamber and large ensemble playing. Prerequisite: Audition and instructor permission. One credit equals a 30-minute lesson. May be repeated for credit.

MUS 155F • Music Applied – Violin

1 credit

Focuses on the fundamentals of Violin performance as applied to solo, chamber and large ensemble playing. One credit equals a 30-minute lesson. May be repeated for credit. Prerequisite: Audition and instructor's permission.

MUS 155G • Music Applied – Flute

1 credit

Focuses on the fundamentals of Flute performance as applied to solo, chamber and large ensemble playing. One credit equals a 30-minute lesson. May be repeated for credit. Prerequisite: Audition and instructor's permission.

MUS 160 • Introduction to Conducting

2 credits

A study of fundamental gesture technique, score-reading, and interpretation. Prerequisite: MUS 135 or instructor permission. One lecture; two lab.

MUS 200 • Advanced Northland Master Chorale

1 credit

Requires Northland Master Chorale singers in their second year to exhibit further leadership skills, increased vocal production and increased music learning and performance capabilities. May be repeated for credit. Prerequisite: MUS 100 and instructor permission. Two lab.

MUS 221 • Soundcheck II

1 credit

Advanced vocal jazz and a cappella ensemble focused on learning and performance of contemporary, jazz and pop music. Emphasizes leadership skills, increased vocal production and increased music learning and performance capabilities. May be repeated for credit. Prerequisite: MUS 121, audition and instructor permission. Two lab.

MUS 235 • Music Theory III

3 credits SUN# MUS 2222

A continuation of Music Theory II. Includes introductory studies of formal organization, 18th-Century counterpoint, and score analysis. Begins exploration of chromaticism. Prerequisite: MUS 136; must be taken concurrently with MUS 237. Three lecture.

MUS 236 • Music Theory IV

3 credits

A continuation of Music Theory III covering advanced harmonic materials such as chromaticism, modulation, and 20th-Century techniques. Prerequisite: MUS 235; must be taken concurrently with MUS 238. Three lecture.

MUS 237 • Ear Training III

1 credit SUN# MUS 2222

Sight-singing, dictation, keyboard exercises, and related skills designed to develop the student's musical ear to the highest degree possible. Coincides with Music Theory III. Prerequisite: MUS 138. Two lab.

MUS 238 • Ear Training IV

1 credit SUN# MUS 2223

Sight-singing, dictation, keyboard exercises, and related skills designed to develop the student's musical ear to the highest degree possible. Coincides with Music Theory IV. Prerequisite: MUS 237. Two lab.

MUS 250 • World Music

3 credits

Introduces students to global wealth of vernacular musics; explores interaction between music and other aspects of cultural expression from areas around the world. Through studying historical and contemporary musical heritages, students come to know, relate to and understand a broad range of cultural and artistic perspectives. Prerequisite: Satisfactory placement. Three lecture.

MUS 261 • Advanced Choral Conducting

2 credits

A detailed study of rehearsal techniques, musical components, and baton expressiveness as related to choral conducting. Topics include score reading, accompaniment, and performance practice. Prerequisite: MUS 160. One lecture; two lab.

MUS 262 • Advanced Instrumental Conducting

2 credits

A detailed study of rehearsal techniques, musical components, and baton expressiveness as related to instrumental conducting. Topics include score reading, accompaniment and performance practice. Prerequisite: MUS 160. One lecture; two lab.

MUS 275 • Music Composition I

3 credits

Focus on composition of various exercises and original music. Additional topics include study of 20th-Century compositions and performance of new works. Students wishing to take this course should contact instructor. Three lecture.

MUS 276 • Music Composition II

3 credits

Continuation of MUS 275. Students wishing to take this course should contact instructor. Prerequisite: MUS 275. Three lecture.

MUS 285 • Band

1 credit

Focus on performance of the concert band repertoire, requiring diligence in learning music and study of fundamentals, includes minor research of pieces and public performance. May be repeated for credit. Two lab. Prerequisite: Audition required.

MUS 287 • Jazz Band

1 credit

Study and performance of jazz band literature and appropriate jazz techniques. Requires diligence in learning music, minor research of pieces, and public performance. May be repeated for credit. Two lab. Prerequisite: Audition required.

Nursing (NUR)

NUR 105 • Nursing Calculations

1 credit

This course is designed to present mathematics necessary to convert between the American and metric systems of measurement, intake and outtake calculations, drug dosage calculations and determining IV flow rates in multiple formats, pediatric dosages. Prerequisite: Admission to Nursing Program. One lecture.

NUR 116 • LPN to RN Transition

3 credits

For licensed practical nurses preparing to enter the Associate Degree Nursing (ADN) Program. Emphasis is on ensuring students are prepared to enter the ADN Program in the third semester. Knowledge gaps will be identified, nursing skills updated, and current trends in nursing explored. Prerequisite: Admittance to the LPN-RN program. Three lecture.

NUR 117 • Pharmacology I

2 credits

Introduces student to use of pharmacological agents and provides theoretical development of competence in the safe and accurate administration of medications. Prerequisite: Enrollment in Nursing Program or instructor permission. Two lecture.

NUR 118 • Pharmacology II

2 credits

Extends student knowledge in the use of pharmacological agents. Theoretical development of competences in the safe and accurate administration of intravenous, pediatric, psychotropic and obstetric medications, as well as parenteral nutrition. Prerequisite: NUR 117; enrollment in Nursing Program or instructor permission. Two lecture.

NUR 121 • Nursing I

8 credits

Focus on practice in the nursing student role with emphasis on the client's admission to and movement within the health care system, the student's development as a caring, competent nurse within the legal/ethical framework of the profession, and development of critical thinking and communication skills. Prerequisite: Admission into nursing program. Four lecture; eight clinical; four lab.

NUR 122 • Nursing II

8 credits

Focus on nursing care for individuals and families with chronic health conditions in well-defined practice settings. Emphasis on basic management concepts and continued development of critical thinking, nursing judgment and skills. Prerequisites: NUR 117 and NUR 121. Four lecture; eight clinical; four lab.

NUR 123 • Paramedic to Nurse Bridge Course

11 credits

This intensive course introduces the experienced paramedic to nursing process, critical reasoning, concept mapping, basic CNA and advanced nursing skills, medication calculations and administration, nutrition, a review of acute disease processes, theoretical development of clinical and cultural competencies and safe and accurate nursing practice. Prerequisites: Current paramedic certification and minimum of one year of active paramedic experience; Nursing Program prerequisites; admission to the Nursing Program; Co-requisites: NUR 117 and NUR 118. Eight lecture; nine clinical lab.

NUR 125 • Practical Nurse Completion

2 credits

Preparation for the NCLEX-PN examination through comprehensive critical content review, practice questions with rationales, and development of a study plan. Emphasis is on strengthening critical thinking skills and test-taking strategies for a practical nurse. Prerequisite: Co-enrollment or completion of NUR 122. Two lecture.

NUR 219 • NCLEX Review Seminar

2 credits

Preparation for the NCLEX-RN examination through comprehensive critical content review, practice questions with rationales, and development of a study plan. Emphasis will be placed on the current NCLEX-RN Test Plan. Prerequisite: Co-enrollment or completion of NUR 222. Two lecture.

NUR 221 • Nursing III

8 credits

Focus on nursing care of individuals and families experiencing developmental milestones. Includes group theory and nursing therapeutics related to parenteral therapy, assisting the client through acute health care issues, concepts in critical thinking, organizational skills and psychosocial nursing. Prerequisites: Successful completion with a 'C' or better in NUR 122, BIO 205; and PSY 240. Four lecture; eight clinical; four lab.

NUR 222 • Nursing IV

8 credits

Focus on the impact of acute health care conditions on individuals, families and groups. Emphasis is on synthesis and application of nursing therapeutics as students continue to develop in the role of the professional nurse with an introduction to organizational transitions. Prerequisite: NUR 221. Four lecture; eight clinical; four lab.

NUR 291 • RN Refresher

8 credits

Designed for the RN whose license has lapsed. Updates nursing knowledge and skills including medication administration and intravenous therapy. Candidate applies to the Arizona State Board of Nursing for licensure upon completion. Student responsible to negotiate placement in health care agency for 160 hours precepted clinical experience during the course. Prerequisite: Student must acquire a temporary RN license for refresher course prior to first day of class. Five lecture; ten clinical.

Nursing Assistant Training (NAT)

NAT 101 • Nursing Assistant Training

5 credits

Prepares students to assume the role and responsibilities of a nursing assistant within community health settings with a focus on long-term care. Complies with federal (OBRA) guidelines and preparation for the Arizona State Board of Nursing certification examination. Prerequisite: Satisfactory reading and math placement. Co-requisites: Healthcare Provider CPR and First Aid certification (EMT 104, or equivalent). All students undergo random urine drug screening prior to clinical. Three lecture; three lab; three clinical.

Before Enrolling:

Student must have a current negative TB test, have completed a Hep B, MMR, and Varicella immunization series, and a COVID-19 vaccination. A clinical agency-approved COVID-19 waiver MAY be available.

To qualify for enrollment in NAT 101, students must also provide a DPS Fingerprint Clearance Card** prior to course registration to meet Department of Health Services requirements. There is a $75 application fee and a fingerprinting fee may also apply. Learn how to apply at: ***https://www.npc.edu/file/download/38674***

Pharmacy Technician (PHT)

PHT 103 • Pharmacy Technician I

7 credits

Provides an in-depth overview of pharmaceutical principles and practice related to the role of the pharmacy technician. Provides preparation for the Pharmacy Technician Certification Examination (PTCE). Prerequisites: Satisfactory Placement [requires reading score Next Gen. ACCUPLACER 249+/Classic Accuplacer 73+/ASSET 41+/ COMPASS 81+ and numerical score]; must be at least 18 years of age and have a high school diploma or equivalent. Keyboarding skills equivalent to 20 words per minute. Co-requisite: EMT 104 Healthcare Provider CPR and First Aid and HES 170 Medical Terminology for Clinical Health Professionals or equivalent. Seven lecture.

PHT 104 • Pharmacy Technician II

8 credits

An overview of each body system and the medications used to treat common conditions that afflict each system. Provides preparation for the Pharmacy Technician Certification Examination (PTCE) and 120-hour pharmacy internship. Prerequisites: EMT 104 Healthcare Provider CPR and First Aid or equivalent, HES 170 Medical Terminology for Clinical Health Professionals or equivalent, PHT 103 Pharmacy Technician I, current DPS Fingerprint Clearance Card and a Pharmacy Technician Trainee license issued by the Arizona State Board of Pharmacy. Proof of legal US residency is required to obtain trainee license. All students undergo random urine drug screening prior to clinical. Six lecture, 7.5 lab.

Before Enrolling:

Proof of required immunizations (Hep B, MMR and Varicella), current negative TB test, Health Care Provider CPR/First Aid card, and DPS Level 1 Fingerprint Clearance Card. A COVID-19 vaccination and/or Flu vaccination, or clinical agency approved waiver/declination may be required. All Pharmacy Technician students must obtain a Pharmacy Technician Trainee license issued by the Arizona State Board of Pharmacy. Proof of legal US residency is required to obtain trainee license. *** **NOTE:** Students completing the NPC course will meet PTCB's 2022 education/training eligibility requirements for CPhT Certification. Students must still take and pass the national exam to become certified.

Philosophy (PHL)

PHL 101 • Introduction to Philosophy

3 credits SUN# PHI 1101

Introduction to and analysis of selected philosophical issues, including ideas which have shaped Western thought: knowledge, causality, the existence of God, morality, the nature of persons, free will, the good life, the ideal community, and the nature of reality. Reading and critical discussion of both classical and contemporary texts. Prerequisite: Satisfactory placement. Three lecture.

PHL 103 • Introduction to Logic and Critical Thinking

3 credits SUN# PHI 1103

An introduction to the basic concepts of deductive and inductive logic. Covers informal fallacies, validity, and soundness. Students learn elementary symbolic logic, methods of inductive reasoning, and basics of scientific method. Prerequisite: Satisfactory placement. Three lecture.

PHL 105 • Introduction to Ethics

3 credits SUN# PHI 1105

Introduction to moral philosophy and problems of practical ethics; analysis of philosophical problems in ethics and political philosophy, e.g., virtue and integrity, rights vs. social utility, nature of law and state. Reading and critical discussion from sources representative of moral philosophers of both the classical and contemporary periods. Prerequisite: Satisfactory placement. Three lecture.

PHL 150 • Comparative World Religions

3 credits SUN# REL 1101

Introduces the major religions of the world. Prerequisite: Satisfactory Placement. Three lecture.

Physics (PHY)

PHY 111 • General Physics I

4 credits SUN# PHY 1111

Algebra-based course that explores the fundamental laws of physics with an emphasis on kinematics, dynamics, Newton's laws, work, energy, momentum, and the conservation laws. Prerequisite: MAT 189 or satisfactory placement. Three lecture; three lab.

PHY 112 • General Physics II

4 credits SUN# PHY 1112

Continuation of PHY 111 with concentration on thermodynamics, vibrations and wave motion, electricity and magnetism, light and optics, and topics in modern physics. Prerequisite: PHY 111. Three lecture; three lab.

Political Science (POS)

POS 110 • United States Government

3 credits SUN# POS 1110

General survey of the constitutional bases, organizations and functioning of the United States government and political processes. Prerequisite: Satisfactory placement. Three lecture.

POS 112 • Navajo Government

3 credits

Survey of the development of Navajo Tribal Government since its creation in early 20th Century. Examines the legal and political bases of tribal government, the structure and functions of tribal powers and services, fiscal changes, and administrative growth. Includes political relations, developments, and transitions relating to state and federal government. Three lecture.

POS 150 • Introduction to Environmental Justice and Policy

3 credits

Explores key ideas, individuals, and institutions that have shaped environmental studies and policies in the US and globally. Covers institutional, cultural, and political changes resulting from the construction of cities, industries, and infrastructures. Other topics include sustainability and human relationships with nature. Prerequisite: Satisfactory placement. Three lecture.

POS 160 • Introduction to International Relations

3 credits

Overview of theories, concepts, and ideas used to understand international politics and global affairs. Prerequisite: Satisfactory placement. Three lecture.

POS 170 • Comparative Politics

3 credits

Introduces the study of politics using a comparative structure. Students examine the principles and operations of modern political systems. Topics cover global political processes in democratic, socialist, capitalist, monarchical, and totalitarian governments. Prerequisite: Satisfactory Placement. Three lecture.

POS 180 • Political Thought

3 credits

Explores key political concepts. Covers diverse, global political systems and analyzes major philosophies such as conservatism, liberalism, and Marxism. Students investigate the historical origins and philosophical foundations of key ideologies. Prerequisite: Satisfactory Placement. Three lecture.

POS 221 • Arizona Constitution and Government

1 credit

Surveys the Arizona Constitution, with special attention to operation of state and local government. Course is intended to satisfy Arizona's requirement for teacher certification. One lecture.

POS 222 • U.S. Constitution

1 credit

Survey of US Constitution from philosophical and historical roots to modern structure. Course is intended to satisfy Arizona's requirement for teacher certification. One lecture.

Psychology (PSY)

PSY 101 • Introduction to Psychology

3 credits SUN# PSY 1101

Provides an overview of the basic fundamentals of psychology. Specifically, it surveys the science of psychology, including history and systems, physiology, development, sensation and perception, learning theory, abnormal psychology, personality, memory and cognition. Prerequisite: Satisfactory placement. Three lecture.

PSY 230 • Introduction to Psychological Statistics

3 credits

Basic concepts in descriptive and inferential statistics, emphasizing applications to psychology. Prerequisites: PSY 101 or PSY 240 and MAT 142 or MAT 152 or equivalent placement scores in mathematics. Three lecture.

PSY 240 • Developmental Psychology

3 credits

A survey of the issues and concepts dealing with age-related behavior and developmental changes during each different period of our life span from conception through old age and death. Current research in human development includes the physical, cognitive and psychosocial development of each period of the life span. Prerequisite: Satisfactory placement. Three lecture.

PSY 250 • Social Psychology

3 credits

Introduction to major theories and research findings of social psychology. Including theoretical perspectives of social psychology, understanding self and others, social cognition, attitudes and persuasion, social influence, interpersonal relations, aggression, prejudice and group processes. Prerequisite: Satisfactory placement. Three lecture.

PSY 270 • Abnormal Psychology

3 credits

Provides an overview of the field of Abnormal Psychology. Students survey the issues and concepts dealing with various aspects of abnormal psychology, explore issues surrounding the history of abnormal psychology and present day treatment of psychological disorders, discuss various theoretical models of abnormality, and describe psychological disorders as identified in the Diagnostic Statistical Manual. Prerequisite: Satisfactory placement. Three lecture.

PSY 290 • Research Methods in Psychology

4 credits SUN# PSY 2290

Basic concepts in research methodology, emphasizing applications to psychology. Prerequisite: PSY 230. Four lecture.

Sociology (SOC)

SOC 101 • Introduction to Sociology

3 credits SUN# SOC 1101

Fundamentals of sociology, organization of human groups and society and processes of interaction and social change. Prerequisite: Satisfactory reading, writing and math placement. Three lecture.

SOC 121 • Social Problems

3 credits SUN# SOC 2250

A sociological exploration of selected social problems. Prerequisite: Satisfactory placement. Three lecture.

SOC 212 • Sex and Gender in Society

3 credits

Social processes that shape the construction of gender in society. The role of major social institutions in these processes, including distinguishing sex and gender, gender identity, sexual orientation and gender inequality. Prerequisite: Satisfactory reading and writing placement. Three lecture.

SOC 215 • Ethnicity and Race

3 credits SUN# SOC 2215

Examines the social construction of race and patterns of ethnic relations with an emphasis on the social histories and contemporary diversity of ethnic groups in the United States. Analyzes concepts of prejudice and discrimination, segregation and assimilation. Prerequisite: Satisfactory reading and writing placement. Three lecture.

SOC 225 • Sociology of the Family

3 credits

Analyzes families, marriage, and other intimate relationships in various social and historical settings. Prerequisite: Satisfactory placement. Three lecture.

Spanish (SPA)

SPA 100 • Beginning Spanish Conversation

3 credits

Emphasizes basic sentence structure, pronunciation, vocabulary, and practical usage. Designed for developing speaking and listening abilities. Little emphasis on grammar. Three lecture.

SPA 101 • Elementary Spanish I

4 credits SUN# SPA 1101

Introduction to the Spanish language emphasizing basic grammar, pronunciation, vocabulary, and culture. Prerequisite: Satisfactory placement. Four lecture.

SPA 102 • Elementary Spanish II

4 credits SUN# SPA 1102

A continuation of the study of fundamental linguistic patterns in SPA101. Continued emphasis on comprehension, speaking, reading, and writing in Spanish. Prerequisite: SPA 101. Four lecture.

SPA 201 • Intermediate Spanish I

4 credits SUN# 2201

Consolidate and augment dexterity in the four basic communicative skills: comprehension, speaking, reading, and writing in Spanish. Further development of Spanish vocabulary and cultural awareness. Prerequisite: SPA 102. Four lecture.

SPA 202 • Intermediate Spanish II

4 credits SUN# 2202

Systematic expansion to strengthen the communicative skills of listening, speaking, reading, and writing in Spanish. A continued emphasis on vocabulary and cultural enrichment. Prerequisite: SPA 201. Four lecture.

SPA 218 • Advanced Spanish Practicum

3 credits

Increased proficiency in Spanish for advanced students. The area of concentration -be it grammar, conversation, reading, composition, or intense review - depends on the need of each student. Prerequisite: SPA 202. Three lecture.

Speech, Theatre and Film (SPT)

SPT 110 • Fundamentals of Oral Communications

3 credits SUN# COM 1100

Theory and practice in the organization, preparation and delivery of communication. Special attention to elements of interpersonal communication, constructive criticism, conflict management and small group process. Three lecture.

SPT 115 • Interpreter's Theatre

3 credits

Theory and performance in interpreter's theatre. An effective vehicle for understanding literature, developing skills in oral interpretation and bringing enjoyment and enrichment to both the interpreters and the audience. Performance portion of the course is a touring group available to perform for area schools and organizations. Three lecture.

SPT 120 • Public Speaking

3 credits

Development of skill in speaking in a variety of formal public communication situations. Application of the principles of logic and critical thinking as well as the behavioral theories of audience psychology. Three lecture.

SPT 130 • Introduction to Theatre

3 credits SUN# THE 1100

An introductory survey course of theatre from its earliest known beginning(s) to the present day. Students are exposed to drama from a variety of historical and ethnic backgrounds. The course focuses on the aesthetic and humanistic aspects of theatre within historical and contemporary contexts. Prerequisite: Satisfactory placement. Three lecture.

SPT 140 • Principles of Drama

3 credits SUN# THE 2220

Focuses on the analysis of structural elements of major dramatic forms and styles and how they inform interpretive decisions related to theatrical production. Emphasis on studying representative plays, ranging from the classical to contemporary eras. Three lecture.

SPT 150 • Introduction to Film

3 credits

Introduction to the history, ideology and aesthetics of film, film theory and film criticism. Prerequisite: Satisfactory placement. Three lecture.

SPT 156 • History of Television I

3 credits

An overview of the historic evolution of American television programming from the late 1940s to 1990. Students learn the economic, political, social and cultural influence of television in American society. Prerequisite: Satisfactory placement. Three lecture.

SPT 157 • History of Television II

3 credits

An overview of the historic evolution of American television programming from 1990 to the present. Students learn the economic, political, social and cultural influence of television in American society. Prerequisite: Satisfactory placement. Three lecture.

SPT 170 • Introduction to Acting

3 credits

Background in the theatre, and a variety of approaches to acting. Identification and preparation of a role. How to begin a characterization and how to act with other characters on stage. Basic work done with voice and movement. Two lecture; two lab.

SPT 171 • Intermediate Acting

3 credits

A continuation of acting training with the use of Meisner techniques designed to develop self-awareness, rehearsal skills and application of action to a dramatic text. Prerequisite: SPT 170 or instructor permission. Two lecture; two lab.

SPT 175 • Theatre Dance

1 credit

Basic movement styles and dance terminology for students wishing to participate in musical theatre or dance productions. Includes foundational study of anatomy and dance history. Two lab.

SPT 178 • Stage Makeup

3 credits

Focuses on the essentials of stage makeup, including straight, character and special types of makeup. The effects of stage lighting on makeup are also examined. Possible opportunities for production experience, where students apply the techniques learned in the course on actors cast in NPC drama or musical productions. Two lecture; two lab.

SPT 180 • Introduction to Stage Lighting

3 credits

Emphasizes play script analysis in association with lighting color and angle theory. Course includes basic design communication tools such as drafting. Lab is based on developing color, intensity, texture and beam angle in association with mood and place context of a play. Two lecture; two lab.

SPT 185 • Introduction to Scene Design

3 credits

Emphasizes analysis of a play script subject to the development of stage scenery, developing drafting and drawing skills necessary to effectively communicate as a designer and skills necessary to construct a working model for a play script. Two lecture; two lab.

SPT 190 • Introduction to Costume Design

3 credits

Basic principles of costume design and construction and a survey of selected historical periods. Students develop drawing skills necessary to effectively communicate as a designer and complete a costume design project as part of a production experience. Two lecture; two lab.

SPT 200 • Play Production I

3 credits

Techniques and materials used in theatrical production: directing, acting, lighting, stagecraft, makeup, costume, and management. Emphasis placed on performance of a play for an audience. Six lab.

SPT 201 • Play Production II

3 credits

Continuation of Play Production I, students are assigned roles and/or positions on technical committees. Additional focus placed on the function of directing, character analysis, and technical theatre. Emphasis on performance of a play or musical for an audience. Prerequisite: SPT 200 or instructor permission. Six lab.

SPT 210 • Intermediate Public Speaking

3 credits

Emphasis on in-depth study of communication theory, introduction to argumentation and debate, and the organization, preparation, and delivery of a variety of speech types. Prerequisite: SPT 120 or instructor permission. Three lecture.

SPT 220 • Technical Theatre

3 credits

The study and utilization of design and construction techniques for theatre. Includes the areas of lighting design and wiring, scenery design and construction, costume design and construction and stage management. Two lecture; two lab.

SPT 230 • Video Production

3 credits

Study and practice of basic principles and techniques of video production: audio, lighting, camera, video recording, graphics and sets, producing, directing and field production. Two lecture; two lab.

SPT 240 • Video Editing

3 credits

Introduction to the theories, history and practices of editing. Students will work with nonlinear video editing stations to gain experience editing and learning the concepts, procedures and challenges of this art form. Two lecture; two lab.

SPT 251 • Teaching Theatre for Youth

3 credits

Provides students educational theory on learning styles, insight into theatrical games and activities designed for children to help them practice basic theatre performance and technical activities, including acting, singing, dancing and technical theatre areas such as set building, makeup and costumes. Two lecture; two lab.

SPT 252 • Playwriting

3 credits

Introduction to playwriting. Emphasis placed on composition of action, plot development, and character development. Students write a series of short scripts. Two lecture; two lab.

SPT 265 • Directing

3 credits

Basic principles and techniques of stage direction: play selection, play analysis, stage composition and design, casting, blocking and business, technical coordination, rehearsal and final production. Direction of scenes or one-act required. Prerequisites: SPT 200, SPT 220 or instructor permission. Two lecture; two lab.

SPT 275 • Acting for the Musical Theatre

3 credits

Development of performance skills for the actor interested in musical theatre, with an emphasis on the singing voice, physical movement, and acting preparation for interpreting songs. Two lecture; two lab.

Surgical Technology (SGT)

SGT 117 • Pharmacology for Surgical Technology

3 credits

Presents role of the surgical technologist in safe handling of drugs according to standard policies and best practices. Includes drug classifications and uses, federal and state pharmacy regulations. Covers labeling, dosage calculation and methods of administration. Emphasizes complications and safety issues of medication administration. Prerequisite: Admission into the Surgical Technology Program. Three lecture.

SGT 121 • Surgical Sterile Techniques and Instrumentation

2 credits

Introduction to surgical technologist profession and practice. Applies principles of microbiology to decontamination, inspection, sterilization, packaging and storage of reusable surgical instruments and devices. Prerequisites: EMT 104 or equivalent; DPS Fingerprint Clearance Card, immunization records. One lecture; one lab; two clinical. All students undergo random urine drug screening prior to clinical.

Before Enrolling:
Proof of required immunizations (Hep B, MMR and Varicella), current negative TB test, Health Care Provider CPR/First Aid card, and DPS Level 1 Fingerprint Clearance Card. A COVID-19 vaccination and/or Flu vaccination, or clinical agency approved waiver/declination may be required.

SGT 122 • Surgical Techniques

4 credits

Introduction to the hospital environment, the role of the surgical technologist, fundamental principles and practices in surgical techniques, safe patient care and knowledge to identify, select and safely use equipment and supplies in the operating room. Co-requisite: SGT 121. Three lecture; three lab.

SGT 221 • Perioperative Procedures

4 credits

Develops fundamental understanding of perioperative environments, roles of surgical team members, and surgical patient processes. Includes a clinical experience in sterile processing environment. Prerequisite: SGT 121. Co-requisite: SGT 222. Three lecture; three lab.

SGT 222 • Surgical Concepts and Specialty Procedures

4 credits

Classroom presentations and laboratory demonstrations of surgical procedures with review of anatomy and related pathophysiology. Operating room procedures, instrumentation and equipment in surgical specialties including genitourinary, ophthalmic, otolaryngology, maxillofacial, plastic/reconstructive, orthopedic, vascular, thoracic/pulmonary, cardiac, pediatric, neurosurgery and emergency trauma. Prerequisite: SGT 121 Co-requisite: SGT 221. Three lecture; three lab.

SGT 223 • Surgical Technology Clinical Practicum I

5 credits

Students assume role as surgical technologist in a live operating room setting applying learned skills. Prerequisites: SGT 117, SGT 121, SGT 122, SGT 221, SGT 222. Seventeen clinical.

Before Enrolling:
Proof of required immunizations (Hep B, MMR and Varicella), current negative TB test, Health Care Provider CPR/First Aid card, and DPS Level 1 Fingerprint Clearance Card. A COVID-19 vaccination and/or Flu vaccination, or clinical agency approved waiver/declination may be required.

SGT 224 • Surgical Technology Clinical Practicum II

10 credits

Continuation of SGT 223 providing student opportunities to develop proficiency by serving in First and Second Scrub roles on surgical cases of increasing complexity to advance toward entry-level graduate achievement. Prerequisite: SGT 223. Thirty-one clinical.

Before Enrolling:
Proof of required immunizations (Hep B, MMR and Varicella), current negative TB test, Health Care Provider CPR/First Aid card, and DPS Level 1 Fingerprint Clearance Card. A COVID-19 vaccination and/or Flu vaccination, or clinical agency approved waiver/declination may be required.

SGT 229 • Surgical Technologist Review Seminar

1 credit

Preparation for the Certified Surgical Technologist examination (CST-ERC) through lecture, analysis of practice questions, development of a study plan and taking practice exams. Prerequisite: SGT 223. One lecture.

Therapeutic Massage Program (TMP)

TMP 107 • Overview for Alternative and Complementary Medicine

3 credits

Exploration of the definition of health and the mind-body-spirit-emotional connection. Identify the strengths and limitations of alternative therapies and alternative health professionals. Introduction to history and techniques of various massage therapies and how to research and discern the value of therapeutic modalities. Three lecture.

TMP 108 • A & P with Kinesiology Techniques I

4 credits

The study of human anatomy and physiology with emphasis on the central nervous system, muscles and specific normal muscular structural functions, deviations, the body's energy systems, the pain cycle, kinesiology theories, and massage therapy benefits, indications and contraindications. Prerequisite: DPS Level I Fingerprint Clearance Card. Three lecture; three lab.

Before Enrolling:
Proof of required immunizations (Hep B, MMR and Varicella), current negative TB test, Health Care Provider CPR/First Aid card, and DPS Level 1 Fingerprint Clearance Card. A COVID-19 vaccination and/or Flu vaccination, or clinical agency approved waiver/declination may be required.

TMP 109 • A & P with Kinesiology Techniques II

4 credits

Continues the study of structure and function of the human body systems related to therapeutic massage. Introduces assessment skills, applied kinesiology, the modalities of healing, therapist role with other health care professionals, and mastery of fundamental massage techniques appropriate to specific muscle areas and those of special populations. Prerequisite: TMP 108. Three lecture; three lab.

TMP 111 • Pathology for Massage Therapists

3 credits

Student develops skills to work with special population including those with abnormal conditions and disabilities. Three lecture.

TMP 112 • Business and Communication for Massage Therapy

3 credits

Relevant financial, legal, business and ethical skills necessary to start and maintain a profitable massage therapy business. Knowledge of client intake forms, charting, business forms, contracts, insurance and billing, marketing, licensing, ADA compliance, financial record keeping, informed consent and client confidentiality, job search, résumé skills, effective communication and problem-solving techniques. Three lecture.

TMP 205 • Applied Therapeutic Massage

4 credits

Introduces historical and functional knowledge of massage therapy skills, ethical and legal responsibilities, client physical and emotional assessment, postural assessment, proper body mechanics and client draping, Swedish Massage techniques, types of muscular releases, joint motions and range of motion, Trigger point therapy, pain and pain pathways, benefits of stretching. Co-requisites: TMP 107, 109, 111 and 112. Three lecture; three lab.

TMP 214 • Massage Techniques

4 credits

Mechanics of popular and effective techniques and clinical settings utilized in massage therapy, use of appropriate equipment and supplies. Introduces research methodologies relating to research and case studies, explores a variety of massage techniques including Lymphatic, Thai, Pregnancy, Infant, Geriatric, Fibromyalgia, Sports, Deep Tissue, Seated, Medical, Spa, Neuromuscular therapies. Prerequisite: TMP 205. Three lecture; three lab.

TMP 221 • Body/Mind Therapy

3 credits

Explore historical and fundamental psychological dimensions of nurturing touch relating to massage therapy. Learn boundaries and limits, therapist self-care, how the body expresses emotional patterns and emotional release, and psychological contraindications to therapy. Increase understanding of mental health conditions/disorders, discover the value of making client referrals and per collaboration. Three lecture.

TMP 240 • Massage Therapy Clinical Practice

4 credits

Refines technical massage therapy skills, with emphasis on the student's development as a therapist within the legal/ethical framework of the profession. Interpersonal skills to establish working rapport with clients, peers and other health care practitioners. Includes 160 hours of hands-on experience by practicing massage and spa protocols with public clientele. Prerequisites: TMP 214 and 221. One lecture; ten practicum.

Welding (WLD)

WLD 100 • Safety and Math

2 credits

Introduces trainees to principles and procedures needed to work safely in the construction environment and includes common safety equipment with procedures for inspection and use. Two lecture.

WLD 130 • Metal Art

3 credits

Introduction to various forms of metal artwork techniques including basic blacksmith forging, scrollwork, bending, forming of sheet metal into armour and other implements. Also features elements of armour and weapons history by touching on the styles found in different countries. One -lecture; four lab.

WLD 131 • Metal Armour Fabrication

3 credits

Skills enhancement in various forms of metal artwork techniques, specifically chasing, engraving, etching and beginning inlay work (soldering style inlay and puzzle style inlay). Skills are applied to brass, copper, steel or iron. Objective is the practice of shaping and forming of steel armour. Student will build a set of armour and enhance its surface with inlaying techniques. Prerequisite: WLD 130. One lecture; four lab.

WLD 134 • Fundamentals of Plastic Welding

3 credits

Introduces theories pertaining to thermoplastics, welding techniques, plastic identification processes, fusion welding, chemical welding processes, and thermoset plastics. Prerequisites: ATO 116 or CON 100 or CON 107 or WLD 100 or instructor permission. Three lecture.

WLD 170 • Metal Preparation, Quality and Alignment

2 credits

The student will be exposed to welding quality control methods, metal preparation techniques and alignment. Additionally, fitting and welding base metal joints. Co-requisite: WLD 100 or instructor permission. Two lecture.

WLD 171 • Welding Cutting Processes

2 credits

Students are introduced to oxy-fuel cutting (OFC), plasma arc cutting (PAC), and carbon arc cutting (CAC). Co-requisite: WLD 100 or instructor permission. Two lecture.

WLD 172 • SMAW ARC

3 credits

The student is introduced to: shielded metal arc welding (SMAW) and its equipment setup; shielded metal arc welding beads and fillet welds using only shielded metal arc welding technology. Co-requisite: WLD 100 or instructor permission. Half lecture; five lab.

WLD 173 • SMAW Open Root Plate

2 credits

Students are introduced to shielded metal arc welding, open V-Groove welds using appropriate equipment, advanced training in the fabrication of out of position welding (using shielded metal arc welding), and open V-Groove welds using appropriate equipment. Co-requisite: WLD 100 and WLD 172 or instructor permission. Half lecture; three lab.

WLD 174 • SMAW V-Groove with Backing

2 credits

Shielded metal arc welding groove welds with backing and their manufacture uses and the use of shielded metal arc welding equipment. Co-requisite: WLD 100 and WLD 172 or instructor permission. One lecture; two lab.

WLD 175 • GMAW Plate

3 credits

An introduction to: gas metal arc welding (GMAW) equipment and filler metals; gas metal arc plate and the fabrication of GMAW fillet welds on plate in all positions. Co-requisite: WLD 100 or instructor permission. Two lecture; two lab.

WLD 176 • FCAW Plate

3 credits

An introduction to: flux cored arc welding (FCAW) equipment and filler metals and the fabrication of FCAW fillet welds and groove welds using the flux cored arc welding process. Co-requisite: WLD 100 or instructor permission. Two lecture; two lab.

WLD 177 • GTAW (TIG) Plate

3 credits

A comprehensive study of gas tungsten arc welding (GTAW) equipment and filler metals and the fabrication of groove welds in mild steel plate with the GTAW process. Co-requisite: WLD 100. One lecture; four lab.

WLD 178 • Metallurgy, Drawing, and Symbols

2 credits

The student is introduced to physical characteristics and mechanical properties of metal. Additionally, pre-heating and post-heating weld heat treatment requirements as related to specific base metal types are explored. Students are introduced to weld detail drawing and welding symbols. Co-requisites: WLD 100 and WLD 170 or instructor permission. Two lecture.

WLD 179 • AWS Prep

2 credits

Prepares the student to meet the requirements of the AWS Level I Entry Level Welder, requirements more comprehensive than the NPC general welding curriculum. When linked with WLD 200, WLD 179 prepares the student to sit for the nine-part AWS national certification exam. Prerequisite: Level I & II Certificate of Proficiency or instructor permission. Half lecture; three lab.

WLD 200 • AWS Certification

4 credits

This is the final certification requirement as an American Welding Society Entry Level Welder (Level I). Successful completion of this course earns the student the AWS Entry Level Welder certification as required by AWS EG2.0. Prerequisite: All welding 100-level courses in the Level I and II Certificates of Proficiency or instructor permission. Three lecture; two lab.

WLD 280 • GMAW (MIG) Pipe

3 credits

Introduces the student to gas metal arc welding pipe along with GMAW equipment and filler metals appropriate for the fabrication of pipe welded joints. Co-requisites: WLD 100 and WLD 175 or instructor permission. Two lecture; two lab.

WLD 281 • FCAW Pipe

3 credits

Introduces the student to flux cored arc welding pipe along with FCAW equipment and filler metals appropriate for the fabrication of pipe welded joints. Co-requisites: WLD 100 and WLD 176 or instructor permission. Two lecture; two lab.

WLD 282 • GTAW CS Pipe

3 credits

Introduces the student to gas tungsten arc welding open root pipe along with GTAW equipment and filler metals appropriate for the fabrication of carbon steel pipe welded joints. Co-requisites: WLD 100 and WLD 177 or instructor permission. One lecture; four lab.

WLD 283 • GTAW LA and SS Pipe

3 credits

Introduces the student to gas tungsten arc welding open root pipe along with GTAW equipment and filler metals appropriate for the fabrication of stainless steel and low alloy pipe welded joints. Co-requisites: WLD 100 and WLD 177 or instructor permission. One lecture; four lab.

WLD 284 • SMAW CS Pipe

3 credits

The performance of open root pipe welds in the 1G, 2G, 5G, and 6G positions using shielding metal arc welding is explored. Specifically, fast freeze electrodes for the root pass and low hydrogen electrodes for the fill and cover passes will be covered. Co-requisites: WLD 100 and WLD 173 or instructor permission. One-Half lecture; five lab.

WLD 288 • Advanced Topics in Welding: Aluminum

6 credits

Instruction in how to weld one of the most difficult alloys: Aluminum. Learning the set up of GMAW and GTAW equipment for welding aluminum plate and pipe. Trainees clean and prepare coupons for welding; avoiding problems often encountered in aluminum welding processes. Prerequisite: All courses in Welding Certificates of Proficiency Levels I, II, and III or instructor permission. Two lecture; eight lab.

WLD 290 • Welding Fabrication

3 credits

Instruction in welding fabrication for advanced student welding projects, using welding detailed drawings. Projects are completed from documents. Prerequisite: Instructor permission. Two lecture; two lab.

WLD 291 • Internship for Welding

2 credits

Hands-on experience working as an employee with a local welding business and coordinated by Northland Pioneer College Welding Department. Prerequisite: WLD 100 and instructor permission. Ten practicum.

Workshops and Special Project Courses

The following list of courses are available and applicable in every departmental area and may carry the departmental prefix. Such courses are not described in the preceding Course Description section since their descriptions (below) are the same for all similarly numbered courses.

198 • Internship

1 to 16 credits

An on-the-job training program for students to earn college credit for learning achieved on the job. Learning is demonstrated through student completion of employer, student (employee) and NPC instructor-approved written learning objectives relating to the student's job, career goals and academic major.

099/199 • Workshop

0.5 to 6 credits

Courses designed to meet the common interests and problems of a group of students. Course topics vary according to the needs of students involved.

298 • Portfolio

1 to 3 credits

Supervised special project in field of study designed for application to professional/technical and academic studies. Students participate in an in-depth, critical evaluation of their own work as it relates to competencies developed during their program. Development of a portfolio of individual performance consisting of assessment and examples demonstrating success in communication, problem solving, decision making and technical competencies.

299 • Special Topics

0.5 to 4 credits

A course designed to meet the needs of an individual student who has an interest in a specific topic. This course is especially applicable to the occupational student who wants specialized training.