COURSES

ALL COURSES

AIR CONDITIONING (AC)

AC102 Refrigeration Theory 3 Credits
Prerequisites: None Introduction to the fundamental principles of mechanical refrigeration. Designed for those pursuing a career in servicing, repairing and/or installing refrigeration and air conditioning equipment as well as building maintenance.

AC106 Residential Gas Heating 6 Credits
Prerequisites: AC 102, AC 107 Application of principles and skills in the troubleshooting, repair and maintenance of air conditioning, heating and ventilation equipment. Topics covered are the refrigeration cycle, gas furnace, oil furnace, heat pump, chilled water systems, hot water systems and cooling.

AC107 Electrical and Controls for HVAC 6 Credits
Prerequisites: None Familiarizes students with electrical applications and controls used in HVAC/R. Topics include basic electricity, wiring, schematics and controls found in heating, ventilation, air conditioning and refrigeration.

AC113 Schematic Reading for HVAC/R 3 Credits
Prerequisites: None Application of principles and skills in reading schematics seen in HVAC/R. Followed by the operation of air conditioning, heating and Refrigeration equipment. Topics covered are the cooling cycle, gas furnaces, Ice-Machines and Refrigeration systems both residential and commercial.

AC150 Basic Refrigeration Servicing 6 Credits
Prerequisites: AC 102, AC 107 Designed for those interested in entering the refrigeration service, installation or building maintenance fields. Orientated toward development of basic skills required in troubleshooting, repair and maintenance of refrigeration systems. Topics covered are soldering, silver soldering, service and troubleshooting tools and systems construction.

AC198 Special Topics in Hvac 0.5-6 Credits
Various short courses and experimental classes covering a variety of subjects. Offered from one-half to six credits depending on the course content and number of hours required. May be repeated up to six credits.

ACCOUNTING (ACC)

ACC105 Taxation for Individuals 1-3 Credits
Covers income, expenses, exclusions, deductions, and credits. Emphasizes the preparation of individual income tax.

ACC135 Bookkeeping I 3 Credits
Introduces the basic principles of bookkeeping and applied accounting for a business enterprise with special emphasis on accounting for sole proprietorships, service and merchandising companies. Includes debits and credits, the accounting cycle, journals, ledgers, bank reconciliations, payroll, and the preparation of simple financial statements. May include a computerized component.

ACC180 Payroll & Employee Benefit Accounting 3 Credits
Prerequisites: ACC135,ACC201 or equivalent work experience Introduces payroll and employee benefit reporting to federal state, and local government agencies. Includes an overview of federal and state labor laws and specialized reporting requirements including both manual and computerized payroll accounting systems.

ACC198 Special Topics in Accounting 1-3 Credits
Applies to a variety of topics including short courses and workshops covering a variety of subjects in accounting.

ACC201 Financial Accounting 3 Credits
Recommended prerequisite: ACC 135 Introduces the basic principles of financial accounting for business enterprises with special emphasis on accounting for corporations. Includes theory of debit and credit, accounting cycle, special journals, receivables, depreciation, inventory, long-term debt, corporate capital, and preparation of basic financial statements.

ACC202 Managerial Accounting 3 Credits
Prerequisites: ACC 201 with a grade of C or better Introduces the basic principles of management accounting including manufacturing and cost accounting, budgeting, accounting for management decision-making, and financial statement analysis.

ACC203 Intermediate Accounting I 3 Credits
Prerequisites: ACC 201 with a grade of C or better Emphasizes accounting theory, concepts and analysis of problems that arise in applying these concepts. Course covers in depth the traditional topics as well as recent developments in accounting valuation, accounting for cash, receivables, prepaid and accrued items, plant and equipment.

ACC204 Intermediate Accounting II 3 Credits
Prerequisites: ACC203 Emphasizes accounting theory and concepts in corporate accounting. Areas of focus will include stockholder's equity, investments in securities and funds, financial reporting, and analysis of financial statements.

ACC220 Microcomputer Accounting Systems 3 Credits
Prerequisites: ACC201 Integrates the principles of accounting and the concepts of data processing. Students will become familiar with computerized accounting systems which are realistic examples of systems used in business today.

ACC223 Introduction to Quickbooks 3 Credits
Prerequisites: ACC135 or consent of instructor Introduces students to QuickBooks accounting program and computerized accounting. The student will receive hands-on training in the use of QuickBooks using fictitious case studies.

ACC261 Governmental Accounting 3 Credits
Prerequisites: ACC201 Introduces accounting and reporting for government and non-profit entities. Includes study of fund and budget accounts of local governmental units, revenues, appropriations, disbursements and assessments.

ACC290 Certified Bookkeeper Course 6 Credits
Prerequisites: ACC201 with a grade of C or better, or by demonstrating a thorough knowledge of double-entry accounting Offers skills for working professionals and students who wish to advance their career in the bookkeeping profession. Upon successful completion, students will be able to sit for a national exam administered by the American Institute of Professional Bookkeepers (AIPB). Upon passing this exam and completing two years of bookkeeping experience, individuals earn the right to call themselves "Certified Bookkeepers."

ACC295 Work Experience I 1-6 Credits
Prerequisites: consent of instructor Provides on-the-job supervised and educationally directed work experience.

ACC299 Advanced Special Topics in Accounting 1-3 Credits
Prerequisites: ACC 201 or ACC 202 or consent of instructor Applies to a variety of advanced topics including short courses and workshops covering a variety of subjects in accounting.

AGRICULTURAL SCIENCE (AGSC)

AGSC100 Elements of Livestock Production 3 Credits
Covers fundamental concepts in care, management, and economics of food producing animals. Includes contributions of the Nevada and U.S. animal industries in providing food on an international basis.

AGSC102 Agriculture Communication & Organization 1-3 Credits
Prerequisite: None Designed for students interested in pursuing an agricultural career. Provides students with an in depth investigation into personal and interpersonal leadership. Teaches students to strengthen their leadership influence through a personal application of leadership skills, attitudes and dispositions.

AGSC122 Intercollegiate Rodeo 2 Credits
Prerequisite: None Designed for men and women interested in rodeo as a knowledgeable spectator, producer, or participant. Covers rodeo history, current rules, equipment use, and physical and mental conditioning.

AGSC163 Horsemanship 2 Credits
Prerequisite: None Demonstrates Western horseback riding techniques and equitation. Provides the foundation for good, basic, and effective horsemanship that can later be developed into more specialized. riding. Includes safety, handling, grooming, saddling, staling, feeding, health, exercise, and riding. All levels of ability are welcome as lab assignments are tailored to the skill levels of both student and horse.

AGSC198 Special Topics in Agriculture 1-6 Credits
Prerequisite: None Selected agricultural topics offered for general interest in the agricultural community. Repeatable to a maximum of six units.

AGSC206 Fundamentals of Animal Nutrition 3 Credits
Prerequisite: AGSC 100 or 105 Provides an overview of animal nutrition as the basis for livestock feeding and nutrition. Discusses the fundamentals of digestion and absorption in both ruminants and non-ruminants. Emphasizes the nutritive value of feeds as they relate to the formulation of livestock rations, including by-product feeding.

AGSC211 Agribusiness Management 3 Credits
Applies business management principles to the operation of commercial farms/ranches and food processing/manufacturing firms.

APPLIED INDUSTRIAL TECHNOLOGY (AIT)

AIT101 Fundamentals Of Applied Industrial Technology 4 Credits
Explains the fundamental concepts of electricity used in many applications, especially control systems. Ohm's Law and Kirchhoff's voltage and current laws will be applied both in theory and through lab experiments. Mechanical concepts of basic levers and forces, friction and pulleys and gears are introduced, as well as their effects on a system. Covers fundamental operation of electric relay controls and explains basic logic circuits which are used to provide automated control of many types of machines. Simulated tools and test equipment are utilized.

AIT102 Measurement Tools and Methods 1-2 Credits
Explains the fundamental concepts of dimensional measurement. Accuracy and tolerance will be described and applied in theory and through lab experiments. U.S. Customary Units and S.I. Metric Units are utilized both in measurement and conversion. Covers fundamental operation of dial and digital calipers.

AIT103 Intro to Machine Tool Technologies 1 Credit
Introduction to the fundamental concepts of using a drill press and band saw, including their parts and controls. These tools will be utilized in the manufacturing process to cut materials and countersink, counterbore, ream and tap holes. Lab experiments will be accomplished through simulated tools and test equipment.

AIT121 Electrical Control Systems 1-3 Credits
Prerequisite: AIT 101 Covers the function and operation of logic control circuits used in industrial, commercial and residential applications. Relays, limit switches and time-delays are introduced for a variety of uses. Automation with electrical control is common in many settings, using components wired together in specific configurations that form the logic needed to determine the sequences of machine operations.

AIT125 Industrial Robotics in the Manufacturing Industry 0.5-6 Credits
Prerequisites: AIT 101 Covers the fundamentals of industrial robotics found in modern manufacturing, logistics and distribution environments. Covers servo robot system components, prepares students to perform robotic movement using articular and/or Cartesian coordinates, ensures exposure to the design of programs for point-to-point and task activities, includes analysis of industrial robotic integration to standardize production line systems, and integrates basic troubleshooting techniques into robot theory and operation.

AIT131 Basic Industry 4.0 Certification 2-4 Credits
Prerequisites: None Smart Automation Certification Alliance Industry 4.0 Associate - Basic Operations Certification prepares individuals to succeed in operations and assembly positions in modern production environments that use Industry 4.0 automation technologies. Class provides the knowledge and skills necessary to earn this nationally recognized certification and it is also ideal for individuals in related occupations who want to learn more about automated equipment and processes. Topics include: concepts & terminology of smart manufacturing, basic setup, adjustment & operation of automated machines, safety, hand tools, blueprint & schematic reading, precision measurement, basic electrical control, pneumatic & sensor systems operation, basic robot operation & terminology and production monitoring via HMI.

AIT155 Applied Industrial Technology Hands On Lab 1-6 Credits
Allows students of Applied Industrial Technology to use hands-on trainers and equipment as they become available for the study of various topics.

AIT198 Special Topics in Applied Industrial Technology 1-6 Credits
Explores various topics of current interest/demand in Applied Industrial Technology areas of study. Applies to a variety of current topics in the field of industrial technology, covering subjects such as new approaches and techniques, equipment configuration, upgrades, preventive maintenance, etc.

AIT200 Applied Industrial Technology Projects 1-6 Credits
Prerequisites: None Explores various project-based topics in the Applied Industrial Technology field. Applies to a range of subjects including short courses and workshops covering a variety of themes relevant to industry.

AIT201 Pneumatic Power Technologies 1-3 Credits
Introduces the concepts of how to connect and operate basic pneumatic components and systems, read circuit diagrams, monitor system operation, and design circuits. Different types of actuators and values will be explained, and skills working with pneumatic schematics will be strengthened by using simulated tools and test equipment.

AIT250 Mechatronics: Electrical Components 3 Credits
3 units Prerequisite or Corequisite: AIT 101 Covers the basics of electrical components in a complex mechatronic system. Students will learn the basic functions and physical properties of electrical components, and the roles they play within the system. Technical documentation such as data sheets, schematics, and timing diagrams will be covered while exploring troubleshooting strategies and preventive maintenance.

AIT251 Mechatronics: Mechanical Components 3 Credits
3 units Prerequisite or Corequisite: AIT 250 Covers the basics of pneumatic, electropneumatic and hydraulic control circuits in a complex mechatronic system. Teaches the functions and properties of control elements based upon physical principles, and the roles they play within the system. Covers technical documentation such as data sheets, circuit diagrams, displacement step diagrams and function charts while exploring troubleshooting strategies and preventive maintenance. Covers the basics of mechanical components in a complex mechatronic system. Students will learn the basic functions and physical properties of mechanical components, and the roles they play within the system. Technical documentation such as data sheets, schematics, and timing diagrams will be covered while exploring troubleshooting strategies and preventive maintenance.

AIT252 Mechatronics: Pneumatic & Hydraulic 3 Credits
3 units Prerequisite or Corequisite: AIT 251 Covers the basics of pneumatic, electropneumatic and hydraulic control circuits in a complex mechatronic system. Students will learn the functions and properties of control elements based upon physical principles, and the roles they play within the system. Technical documentation such as data sheets, circuit diagrams, displacement step diagrams and function charts will be covered while exploring troubleshooting strategies and preventive maintenance.

AIT253 Mechatronics: Programmable Logic Controllers 3 Credits
3 units Prerequisite or Corequisite: AIT 252 Covers the fundamentals of digital logic and an introduction to programmable logic controllers (PLCs) in a complex mechatronic system. Students will learn the role PLCs play within a mechatronic system or subsystem; students will explore basic elements

of PLC functions by writing and testing programs to control them. Course teaches students how to identify malfunctioning PLCs, as well as to apply troubleshooting strategies to identify and localize problems caused by PLC hardware.

AIT270 Mechatronics 2: Process Control Technologies 3 Credits
Prerequisites: AIT 253 Covers content specifically outlined by the Siemens Mechatronic Systems Certification Program (SMSCP) exam objectives and is part of a six-course series to prepare students for the SMSCP Level 2 industry credential exam. Topics include closed loop and other technologies used in process control in the context of a complex mechatronic system are included. Students will understand and establish operating parameters as PID controllers are introduced and explored, along with strategies for optimizing them. Troubleshooting strategies for a variety of industry controllers and their applications are embedded throughout the course.

AIT271 Mechatronics 2: Intro to Totally Integrated Automation 3 Credits
Prerequisites: AIT 253 Covers content specifically outlined by the Siemens Mechatronic Systems Certification Program (SMSCP) exam objectives and is part of a six-course series to prepare students for the SMSCP Level 2 industry credential exam. Introduces the Siemens concept of Totally Integrated Automation by looking at field level analogue sensors and actuators and up to the control level with programming and networking Programmable Logic Controllers (PLCs). Hands-on lab work includes connecting devices and controls, evaluating and writing a PLC program with analogue values and STEP 7 software functions like comparison, memory, arithmetic, conversion, and jump. Including the basics of MPI-Bus and PROFIBUS system, and wire modules to a PLC. Maintenance and troubleshooting of these PLC programs and bus systems are essential components of the course.

AIT272 Mechatronics 2: Automation Systems 3 Credits
Prerequisites: AIT 253 Covers content specifically outlined by the Siemens Mechatronic Systems Certification Program (SMSCP) exam objectives and is part of a six-course series to prepare students for the SMSCP Level 2 industry credential exam. Course is divided into two main sections: Manufacturing Technologies, including CNC, CAD and CAM, and Microcontrollers and Programming, which constitute essential tools in modern manufacturing, particularly in mechatronic systems. Introduces through the microcontroller section the theory behind microcontroller and microprocessor architecture, and its ways of interaction with other electronic elements to explore applications. This theory is complemented with practical exercises that reflect the importance of microcontrollers in a mechatronic system. Covers an exploration of manufacturing automation and the concepts of Metal Cutting, Modal analysis, CNC, CAM and CAD. Provides students with part of the skill set necessary to maintain and improve mechatronic systems.

AIT273 Mechatronics 2: Motor Control 3 Credits
Prerequisites: AIT 253 Covers general machine operation, different types of braking and loads on a motor, and motor efficiency and power. Different control techniques are introduced, including different methods of starting a motor, controlling voltage and frequency, and the role of different sensors in relation to motor operation. Troubleshooting techniques and an examination of the various causes of motor failure are explored; preventive measures to protect motors are also introduced.

AIT274 Mechatronics 2: Mechanics and Machine Elements 3 Credits
Prerequisites: AIT 253 Covers content specifically outlined by the Siemens Mechatronic Systems Certification Program (SMSCP) exam objectives and is part of a six-course series to prepare students for the SMSCP Level 2 industry credential exam. Focuses on the study of the mechanical components that are included in a complex mechatronic system. Includes overview of statics and kinetics, which include; force system analysis, study of equilibrium, frames and machines, friction and effects of forces on the motion of objects among other basic topics. Covers machine elements, fundamentals of a variety of components expanding the material into calculations involving force, stress and wear analysis and investigation of the appropriate component required in given a system. Included are the deployment of these techniques for supporting mechatronic systems and to ensure its proper function, correct possible defects that may interrupt the process, and to plan preventive maintenance operations on them while observing and incorporating safety standards.

AIT275 Mechatronics 2: Manufacturing Processes 3 Credits
Prerequisites: AIT 253 Covers content specifically outlined by the Siemens Mechatronic Systems Certification Program (SMSCP) exam objectives and is part of a six-course series to prepare students for the SMSCP Level 2 industry credential exam. Course is divided into two main sections: process management, and function and importance of a hands-on design project. Lessons and labs explore engineering technology in ways that ensure students have an awareness of what it is like to work with customers, timelines, budgetary restrictions, and in general to include some basic business sense in the spirit of their work. The simulations and exercises in this course emphasize business-related factors that further develop well-rounded mechatronics technicians.

AIT285 AIT Certification/Examination Prep 1-3 Credits
Reviews industrial technology theory and practice including devices and circuits, wiring techniques, controls, operation of test instruments, measurement methods, and troubleshooting of industrial systems. Manufacturing, distribution, and logistics practices and tasks will be covered as applicable. Prepares students for current industrial certification and employment tests through practice questions, example scenarios, and review.

AIT290 Applied Industrial Technology Internship 1-6 Credits
Prerequisite: Consent of Instructor. Allows students to apply knowledge to real on-the-job situations in a program designed by a company official and faculty advisor to maximize learning experiences.

AMERICAN SIGN LANGUAGE (AM)

AM140 American Sign Language I & II 6 Credits
Introduces ASL and focuses on the development of basic conversational skills, emphasizing receptive abilities.

AM141 American Sign Language III & IV 6 Credits
Prerequisites: AM 140 or AM 145 / AM 146 American Sign Language III promotes the shift from comprehension to production of ASL to bring the students current ASL fluency to a point of self-generated ASL. American Sign Language IV encourages the student to expand his or her command of discourse in ASL on various everyday topics.

AM145 American Sign Language I 4 Credits
Introduces ASL and focuses on the development of basic conversational skills, emphasizing receptive abilities.

AM146 American Sign Language II 4 Credits
Prerequisites: AM145 Continues to stress the development of basic conversational skills with emphasis on expanding vocabulary and expressive skills.

AM147 American Sign Language III 4 Credits
Prerequisites: AM146 Promotes the shifting from comprehension to production of ASL to bring one's current ASL fluency to a point of self generated ASL.

AM148 American Sign Language IV 4 Credits
Prerequisites: AM147 Encourages the student to expand his or her command of discourse in ASL on various everyday topics.

AM149 American Sign Language V 4 Credits
Prerequisites: AM148 Emphasizes conversational fluency in American Sign Language. Identification of discourse styles in ASL, which will lead to the ability to initial, maintain and conclude conversational interactions with various deaf language styles and/or preference.

AM150 American Sign Language VI 4 Credits
Prerequisites: AM149 Final course in the American Sign Language series, covering a culmination of all signs, pragmatics, grammar and fingerspelling skills acquired throughout the series. Emphasis is on utilizing all ASL skills simultaneously and fluently.

AM151 Fingerspelling I 1 Credit
Develops basic skills in receptive and expressive fingerspelling.

AM152 Fingerspelling II 1 Credit
Prerequisites: AM151 or current enrollment in AM 151 Improves receptive and expressive fingerspelling skills to intermediate/advanced levels.

AM201 Interpreting I 3 Credits
Prerequisites: AM146 Exposes students to the profession of sign language interpretation, providing them with an opportunity to determine their interest in the field.

AM202 Interpreting II 3 Credits
Prerequisites: AM201 Develops the student's receptive and expressive skills in interpreting. Includes a series of activities leading from consecutive interpretation to simultaneous interpretation skills.

AM203 Interpreting Sign Language III 3 Credits
Prerequisites: AM202 Develops the student's receptive and expressive skills in interpreting for deaf individuals. Follows a sequenced series of consecutive interpretation to simultaneous interpretation skills.

AM208 Observation/Practicum in Interpreting 3 Credits
Prerequisite: Instructor Approval Provides opportunities to shadow, observe, and interact with professional interpreters in a supervised observation/ practicum setting.

AM215 Conversational ASL 4 Credits
Prerequisites: AM147 Focuses on the natural use of American Sign Language. Appropriate use of ASL grammar and vocabulary in conversational situations is stressed. Students master appropriate pragmatics, use of facial expressions, space, fingerspelling and classifiers, simultaneously for conversational fluency.

AM216 Receptive ASL 4 Credits
Prerequisites: AM147 Provides opportunities for students to develop receptive skills with a wide variety of signers. Receptive language of children, teens, adults with various socio-economic levels, and senior signers will be developed. Acquisition and comprehension of regional signs, "slang" signs, and generational signs will also be emphasized.

AM217 Language and Literacy for Deaf/Hard of Hearing Children 3 Credits
Teaches the process of language acquisition and literacy development for children who are deaf or have a hearing loss. Includes comparison to the natural acquisition of language for all children and adults. Includes clinical, cultural, historical and audiological descriptions of deafness; the unique linguistic aspects of language and literacy acquisition and most importantly, practical application and activities that can be utilized with deaf/hard of hearing children. Geared to all persons wishing to learn about language and literacy acquisition, but especially geared to parents, educational interpreters, speech and language pathologists, audiologist, and teacher of dear and hard of hearing children.

AM253 Deaf Culture 3 Credits
Prerequisites: AM145 Offers a study of people who are deafened. Includes clinical and audiological descriptions of deafness and its course.

AM254 Deaf History 3 Credits
Examines segments of the history of deaf people and the deaf community, as well as the deaf experience from a historical perspective.

AM299 Special Topics in Sign Language 0.5-3 Credits
Includes short courses and experimental classes covering a variety of subjects. May be repeated for up to six credits.

ANTHROPOLOGY (ANTH)

ANTH110L Biological Anthropology Lab 1 Credit
Corequisites: ANTH102 Provides practical experience in aspects of physical anthropology: the mechanisms of inheritance, osteology and forensic science, comparative anatomy and human evolution, and aspects of modern human variability.

ANTH101 Introduction to Cultural Anthropology 3 Credits
Introduces human culture and society. Provides an understanding of human diversity through a comparative study of politics, religion, economics and social organization.

ANTH102 Introduction to Biological Anthropology 3-5 Credits
Recommended corequisite: ANTH 110L Explores the biological and evolutionary origins of humans through the examination of the fossil record, the study of primates, and the study of human biology.

ANTH198 Special Topics: Anthropology 1-3 Credits

ANTH201 Peoples & Cultures of the World 3 Credits
Offers a comparative survey of selected societies from throughout the world. Emphasis is on the impact of global developments on traditional societies.

ANTH202 Archaeology 3 Credits
Surveys archaeology in the Old and New Worlds. Examines methods used by archaeologists to describe and explain prehistoric cultures.

ANTH213 Introduction to Indigenous Peoples of the Great Basin 3 Credits
Introduces the Indigenous Nations of the Great Basin summarizing ethnographic and contemporary issues of Indigenous Nations of the Great Basin and the indigenous groups that are geographically adjacent and have influenced Basin cultures. Examines the archaeological documentation of pre-contact conditions. .

ANTH214 Introduction to Mesoamerican Prehistory and Archaeology 3 Credits
Introduces students to the archaeology and prehistory of Mesoamerica. Includes the development of complex societies in Mexico and Central America.

ANTH215 Introduction to Faith Witchcraft & Magic 3 Credits
Introduces students to the anthropological study of religion as a human institution. Examines the history, methods, and current status of the field.

ANTH443 Environmental Archaeology 3 Credits
Topics selected from paleoecology, taphonomy, geoarchaeology, and dating methods. Lectures, readings, and field trips cover advanced principles, method and theory, and practical applications.

ART (ART)

ART100 Visual Foundations 3 Credits
Explores visual forms and contemporary concepts through a variety of media, presentations and discussions.

ART101 Drawing I 3 Credits
Develops drawing skills through practice with a broad variety of drawing tools and techniques. 1 hour lecture/4 hours studio per week.

ART102 Drawing II 3 Credits
Prerequisites: ART101 Continues ART 101 with increased emphasis on the refinement of drawing skills. One hour lecture/ four hours studio per week.

ART111 Beginning Ceramics 3 Credits
Introduces basic ceramic techniques and concepts including both hand-built and wheel thrown vessels as well as both utilitarian and non-utilitarian ceramic forms.

ART124 Beginning Printmaking 3 Credits
Introduces printmaking processes emphasizing relief, intaglio, lithographic, and screen processes.

ART127 Watercolor I 3 Credits
Offers a beginning course in watercolor painting with emphasis on materials and techniques which contribute to the production of quality works of art.

ART131 Introduction to Painting 3 Credits
Introduces the basics of various traditional and contemporary painting media.

ART135 Darkroom Photography I 3 Credits
Prerequisite: None Introduces black and white photography and the 35mm camera. Designed as a beginning or refresher class in understanding photo taking and darkroom procedures. Students will produce a

portfolio of mounted photographs by learning the basic principles of photography including knowledge of how to make appropriate decisions regarding exposure, composition, chemical photographic processes, and the presentation of prints. Recommend students provide a 35mm camera. 1 hour lecture/4hours lab/studio work per week.

ART141 Introduction to Digital Photography I 3 Credits
Introduces photographic techniques. Topics include exposure, camera controls, digital printing, file management. Explores creative possibilities and thematic modes of photography; working in series.

ART151 Introduction to Time Based Media/ Videography 3 Credits
Prerequisites: None Introduces Time-Based Media/Videography using still and moving images. Lecture and studio study using broadcast video as a means of personal expression. Discussion of technical and theoretical themes; production by students of short videos that demonstrate understanding of these concepts.

ART160 Art Appreciation 3 Credits
Studies art, artists and art media of various historical periods to develop the student's capacity to evaluate and appreciate them.

ART201 Life Drawing I 3 Credits
Prerequisites: ART101 Practices drawing the human figure from nude models. Emphasizes the expressive potentialities of human figure, and the production of quality drawings. One hour lecture and four hours studio per week.

ART211 Ceramics I 3 Credits
Offers a beginning studio course in ceramic construction and decoration. Lecture and laboratory methods are used to give special attention to the development of individual student's skills. Uses potter's wheels. One hour lecture and four hours studio per week.

ART212 Ceramics II 3 Credits
Prerequisites: ART211 Continues ART 211 but with increased attention given to further refinement of skills. One hour lecture/four hours studio per week.

ART214 Introduction to Book Art: Intersection of Art and Design 3 Credits
Prerequisites: None Introduction to the book as a physical object. Course covers the field of artists' books as a form of artistic expression and inquiry as well as antiquarian books. Course introduces the mechanics of printing on cylinder and platen presses and several binding structures.

ART218 The Artist's Book 3 Credits
Prerequisite: ART 214 or instructor permission Provides the opportunity for students to create a limited-edition, letterpress-printed artist's book edition of 12-15 copies. Students will write original text, generate imagery using traditional and alternative printing techniques, hand set type, letterpress print on antique printing pressed, and hand-bind each copy of their artist's book.

ART225 Intermediate Printmaking 3 Credits
Prerequisites: ART124 Continues Art 124 with emphasis on contemporary techniques and processes for traditional intaglio, lithography, and digital imaging techniques for intaglio and lithographic processes.

ART227 Watercolor II 3 Credits
Prerequisites: ART127 Continues exploration of watercolor techniques and concepts including gouache and related media.

ART231 Painting I 3 Credits
Offers a beginning course in oil and/or acrylic painting. Introduces concepts and develops skills for the production of quality paintings. One hour lecture and four hours studio per week.

ART232 Painting II 3 Credits
Prerequisites: ART231 Continues ART 231, with increased emphasis on refinement of basic painting skills. One hour lecture and four hours studio per week.

ART235 Photography II 3 Credits
Prerequisites: ART135 or 141 Covers artificial lighting techniques and theory; strobe equipment, hotlights and electronic flashes. Students produce a portfolio of work demonstrating knowledge of these techniques.

ART237 Photography II Color 3 Credits
Prerequisite: ART 141 Covers continued explorations of numerous photographic techniques, compositional styles, concepts and critical analysis of photography as a Fine Art.

ART260 Survey Art History I 3 Credits
Surveys art of the western world from prehistoric times through the Gothic Period.

ART261 Survey of Art History II 3 Credits
Surveys art of the western world from the Renaissance to the present.

ART299 Special Topics in Studio Art 1-3 Credits
Applies to assorted short courses and workshops covering a variety of subjects. May be repeated for up to six credits.

ASTRONOMY (AST)

AST109 Planetary Astronomy 3 Credits
Prerequisites: MATH120,MATH126 or higher or consent of instructor Offers a descriptive introduction to current concepts of the solar system, modern observational techniques, and their results. Utilizes telescopes and observatory facilities. Includes four laboratory experiences.

AST110 Stellar Astronomy 3 Credits
Prerequisites: MATH120,MATH126 or higher or consent of instructor Offers a descriptive introduction to stellar and galactic systems, the life cycle of stars, theories of the universe and its formation. Utilizes telescopes and observatory facilities. Includes four laboratory experiences.

AST120 Introduction to Astrobiology 3 Credits
Study of the origin, evolution and distribution of life in the geology, planetary science, atmospheric science, oceanography, and other sciences. Will explore the scientific reasons behind why the Solar System harbors a living planet. Covers the factors that allow the Earth to support life and the potential for life on other planets within the universe.

ATMOSPHERIC SCIENCE (ATMS)

ATMS117 Meteorology 3 Credits
Covers the elements that make up meteorology, potential climate change, severe weather, and weather forecasting.

AUTOMOTIVE AUTOBODY (AUTB)

AUTB120 Automotive Collision I 3 Credits
Provides fundamental instruction of hands-on skill and knowledge in auto body construction, tools, and safety. Students will also work with metal, plastics, fiberglass and trim.

AUTB125 Automotive Collision II 1-6 Credits
Prerequisites: AUTB120 Continues AUTB 120 with more advanced hands-on skill and knowledge in auto body construction, tools, safety and work with metal, plastic, fiberglass and trim.

AUTB200 Automotive Refinishing I 3 Credits
Provides fundamental instruction of hands-on skill and knowledge in the painting and refinishing, including metal preparation, sanding techniques, masking and priming.

AUTB205 Auto Refinishing II 1-6 Credits
Prerequisites: AUTB200 Continues AUTB 200 with more advanced hands-on skill and knowledge in the painting and refinishing of auto bodies.

AUTOMOTIVE MECHANICS (AUTO)

AUTO101 Introduction to General Mechanics 3 Credits
Introduces principles, design, construction and maintenance of automobiles. Includes safety, use of manuals, selection and use of hand tools, and hand-held test instruments. Introduces general maintenance of various systems.

AUTO115 Auto Electricity & Electronics I 3 Credits
Prerequisites: AUTO 101B or consent of instructor Topics include mastery of DC electricity, use of digital multimeters, troubleshooting electrical problems in starting, charging and accessory systems. Prepares students for ASE certification.

AUTO117 Advanced Auto Electronics 4 Credits
Prerequisites: AUTO115 Advanced AC and DC automotive electronic circuits. Troubleshooting electronically controlled components including supplemental restraint systems and convenience accessories. Prepares students for ASE certification.

AUTO130 Engine Reconditioning 3 Credits
Prerequisites: AUTO101 Introduces principles, design, construction and maintenance of automobile engines. Includes overhaul of various systems in the engine (valve, train, oiling system, etc.) safety, use of manuals, selection and use of hand tools. Introduces a variety of systems.

AUTO140 Automotive Brake Systems 3 Credits
Introduces principles, design, construction and maintenance of automotive brake systems including antilock systems. Includes safety, use of manuals, selection and use of hand tools, power tools and hand-held test instruments. Introduces general maintenance of a variety of different systems.

AUTO145 Automotive Brakes 3 Credits
Prerequisites: AUTO101 or consent of instructor Focus is on theory, diagnosis, and service of drum, disc, and anti-lock braking systems, brake component machining, hydraulic component reconditioning, friction and hardware replacement. Prepares students for ASE certification.

AUTO155 Steering & Suspension 3 Credits
Prerequisites: AUTO101 or consent of instructor Diagnosis/service of suspension components including shocks, springs, ball joints, manual and power steering system and four wheel alignment are some areas covered. Prepares students for ASE certification.

AUTO160 Auto Air Conditioning and Heating 1-3 Credits
Introduces principles design, construction and maintenance of automotive air conditioning systems. Includes safety, use of manuals, selection and use of hand tools, and hand-held test instruments, evacuating systems, charging/ recovery systems and other specialized air conditioning tools. Introduces general maintenance of a variety of different air conditioning systems.

AUTO185 Introduction to Alternative Fueled Vehicles 3 Credits
Prerequisite(s): AUTO 117 Familiarizes students with the alternative fuels movement and the laws, regulations and programs affecting alternative fuels. The design and operation of alternative gaseous, liquid, bio-fuels, hydrogen, hybrid, electric vehicles and emerging technologies will be covered.

AUTO198 Special Topics in Automotive Mechanics 3-6 Credits

AUTO205 Manual Drivetrain and Axles 3 Credits
Prerequisite(s): AUTO 101 Covers theory and operation of the automotive and light truck manual drive trains and axles. Emphasis is placed on operation, maintenance, diagnosis, repair, clutch assemblies, differentials, drivelines, axles and manual transaxles. Components will be inspected for wear and failure. Drive train components will be reassembled to manufactures specifications.

AUTO210 Automatic Transmissions & Transaxles I 3 Credits
Introduces principles, design, construction and maintenance of automatic transmissions used in today's automobiles. Includes safety, use of manuals, selection and use of hand tools, and appropriate transmission test instruments. Introduces maintenance of a variety of different automatic transmissions.

AUTO225 Engine Performance I/Fuel & Ignition 3 Credits
Prerequisites: AUTO101 or consent of instructor A study of engine related subsystems which include ignition, fuel, cooling, starting, and charging systems. Theory and testing of computerized engine management systems. Prepares students for ASE certification.

AUTO227 Engine Performance II/Emission Control 4 Credits
Prerequisites: AUTO225 Automotive emission control systems. Preparation on current gas analyzers for the purpose of diagnosis and repair of specific emission devices. Prepares students for ASE certification.

AUTO235 Engine Performance III/Diagnostics 4 Credits
Prerequisites: AUTO227 Computerized engine and fuel management control. Operational theory of automotive computers. Use of hand held diagnostic interfaces. Prepares students for ASE certification.

AUTO291 Work Experience I 1-4 Credits
Prerequisite(s): Instructor Approval Expands opportunities for applied learning by participating in educationally-directed work-based learning experiences. This includes such things as simulated work place, internships, job shadows, volunteerism, service learning and other opportunities that allow for application of processes, concepts and principles presented through classroom instruction.

AVIATION (AV)

AV110 Private Pilot Ground School 4 Credits
Prerequisite: None A study of aviation fundamentals including principles of flight, aircraft and engine operations, weather, navigation, and radio communications as required by the Federal Aviation Administration (FAA) regulations. Topics will include general service, maintenance, and safety practices.

AV210 Instrument Ground School 4 Credits
Prerequisite: None. Recommend AV 110 This course provides in-depth study of the purpose, use and operation of flight instruments in airport departures, en route navigation, approaches and other aspects of instrument flight.

BIOLOGY (BIOL)

BIOL100 General Biology for Non-Science Majors 3-4 Credits
Prerequisites: None. Recommended: MATH120, MATH126 or higher Covers fundamental concepts and theories of life science. Major topics include cellular/molecular biology, anatomy, physiology, genetics, evolutions and ecology. Includes four laboratory experiences.

BIOL113 Life in the Oceans 3 Credits
Introduces the plants, animals and microorganisms of the oceans with an emphasis on important marine ecosystems such as intertidal zones, estuaries and coral reefs.

BIOL135 Introduction to Ornithology 3 Credits
Prerequisites: None Introduction to the biology of birds with a focus on avian biology, behavior, ecology, mechanism of flight, and migration; along with opportunities for field identification of birds common to Western Nevada. Includes classroom lectures, hands-on activities, four laboratory experiences and field trips.

BIOL190 Intro to Cell & Molecular Biology 4 Credits
Prerequisite: Math 124 or higher with a grade of C- or higher. Covers the structure and functions of cells. Includes the major molecules of life, composition and physiology of cellular organelles, cellular metabolism, reproduction, motility, gene function and related topics. Meets for a total of 45 lab hours and 45 lecture hours. Note: BIOL 190 plus BIOL 191 transfer to UNR as fulfilling BIOL 190, 191 and 192 requirements.

BIOL191 Introduction to Organismal Biology 4 Credits
Prerequisite: None. Combines the principles of botany and zoology into one course emphasizing levels of organization and life processes common to all organisms. Topics range from nutrient processing and homeostasis to reproduction. Meets for a total of 45 lecture hours and 45 lab hours. Note: BIOL 190 plus BIOL 191 transfer to UNR as fulfilling BIOL 190, 191 and 192 requirements.

BIOL198 Special Topics in Biology 1-3 Credits
Prerequisites: None Includes short courses and experimental classes covering a variety of subjects.

BIOL200 Elements of Human Anatomy & Physiology 3 Credits
Provides students with an intense descriptive overview of anatomy and physiology with related, illustrative pathology and microbiology.

BIOL204 Elements of Human Anatomy & Physiology Lab 1 Credit
Corequisites: BIOL200 Provides students with intense laboratory exercises about anatomy and physiology with related, illustrative pathology and microbiology.

BIOL208 Introduction to Human Genetics 3 Credits
Prerequisites: BIOL190 and 190L Offers a basic science (Mendelian genetics, cytogenetics, molecular genetics) and detailed clinical case study and correlation-oriented (pedigree analysis, gene cloning, inborn errors of metabolism) course that demonstrates the principles of genetics/heredity in human health and disease. Strongly recommended for those pursuing per-medical studies. Three hours lecture.

BIOL212 Introduction to Human Genetics Lab 1 Credit
Corequisites: BIOL 208 Provides an opportunity to learn how to extract and amplify genomic DNA using the polymerase chain reaction; apply concepts of chemistry and evolutionary biology to study an organism they choose; identify a question involving their chosen organism and answer it using DNA technology; research and identify protocols and materials such as M-SAT primers specific to the organism they choose; subject data to statistical analysis and relate their findings to concepts of evolution. Three hours laboratory.

BIOL223 Human Anatomy and Physiology I 4 Credits
Prerequisite: BIOL 190 with lab, or BIOL 190/190L with grade of C or better. May be repeated a maximum of two times within the last five years. Offers detailed study of histology and the integumentary, skeletal, muscular, and nervous systems. Primary for physical education, pre-nursing and other pre-health majors. Three hours lecture/three hours laboratory. NOTE: For programs that require BIOL 223 and 224, both courses must be completed at the same institution if taken outside Nevada.

BIOL224 Human Anatomy and Physiology II 4 Credits
Prerequisites: BIOL 223 with a grade of C or better. May be repeated a maximum of two times within the last five years. Offers a detailed study of the anatomy and physiology of the circulatory, immune, respiratory, digestive, urinary, endocrine and reproductive systems. Primarily for physical education, pre-nursing and other pre-health majors. Three hours lecture/three hours laboratory. NOTE: For programs that require BIOL 223 and 224, both courses must be completed at the same institution if taken outside Nevada.

BIOL251 General Microbiology 4 Credits
Prerequisites: BIOL 190 with Lab with a grade of C or better or BIOL 190 & 190L with a grade of C or better or CHEM 121 with a grade of C or better. May be repeated a maximum of two times with the past five years. Emphasizes the distribution, form, structure and physiology of microorganisms in laboratory. Develops the student's skills in aseptic procedures, isolation and identification. Three hours lecture/three hours laboratory per week.

BIOL273 Research Experience 1-6 Credits
Prerequisites: BIOL 190 & 190L or CHEM 121 with a grade of C or better and instructor consent. Research intensive course designed to foster competency in experimental design, laboratory techniques, problem-solving information through open-ended investigation.

BIOL299 Special Topics in Biology 1 Credit

BT CARPENTRY (BTC)

BTC101 Building Trades Carpentry Level I 5 Credits
Prerequisite: Must be admitted to an approved apprenticeship program Provides building trade skills and practices in the field of construction carpentry through classroom and hands-on instruction. This class is Level 1 of the Carpentry Apprenticeship Program.

BTC102 Building Trades Carpentry Level II 5 Credits
Prerequisite: Must be admitted to an approved apprenticeship program Provides building trade skills and practices in the field of construction carpentry through classroom and hands-on instruction. This class is Level 2 of the Carpentry Apprenticeship Program.

BTC103 Building Trades Carpentry Level III 5 Credits
Prerequisite: Must be admitted to an approved apprenticeship program Provides building trade skills and practices in the field of construction carpentry through classroom and hands-on instruction. This class is Level 3 of the Carpentry Apprenticeship Program.

BTC104 Building Trades Carpentry Level IV 5 Credits
Prerequisite: Must be admitted to an approved apprenticeship program Provides building trade skills and practices in the field of construction carpentry through classroom and hands-on instruction. This class is Level 4 of the Carpentry Apprenticeship Program.

BTC105 Building Trades Carpentry Level V 5 Credits
Prerequisite: Must be admitted to an approved apprenticeship program Provides building trade skills and practices in the field of construction carpentry through classroom and hands-on instruction. This class is Level 5 of the Carpentry Apprenticeship Program.

BTC106 Building Trades Carpentry Level VI 5 Credits
Prerequisite: Must be admitted to an approved apprenticeship program Provides building trade skills and practices in the field of construction carpentry through classroom and hands-on instruction. This class is Level 6 of the Carpentry Apprenticeship Program.

BTC107 Building Trades Carpentry Level VII 5 Credits
Prerequisite: Must be admitted to an approved apprenticeship program Provides building trade skills and practices in the field of construction carpentry through classroom and hands-on instruction. This class is Level 7 of the Carpentry Apprenticeship Program.

BTC108 Building Trades Carpentry Level VIII 5 Credits
Prerequisite: Must be admitted to an approved apprenticeship program Provides building trade skills and practices in the field of construction carpentry through classroom and hands-on instruction. This class is Level 8 of the Carpentry Apprenticeship Program.

BT ELECTRICAL (BTE)

BTE101 Building Trades Electrical Level I 5 Credits
Prerequisite: Admitted to an approved apprenticeship program.

BTE102 Building Trades Electrical Level II 5 Credits
Prerequisite: Admitted to an approved apprenticeship program.

BTE103 Building Trades Electrical Level III 5 Credits
Prerequisite: Admitted to an approved apprenticeship program.

BTE104 Building Trades Electrical Level IV 5 Credits
Prerequisite: Admitted to an approved apprenticeship program.

BTE105 Building Trades Electrical Level V 5 Credits
Prerequisite: Admitted to an approved apprenticeship program.

BTE106 Building Trades Electrical Level Vi 5 Credits
Prerequisite: Admitted to an approved apprenticeship program.

BTE107 Building Trades Electrical Level VII 5 Credits
Prerequisite: Admitted to an approved apprenticeship program.

BTE108 Building Trades Electrical Level VIII 5 Credits
Prerequisite: Admitted to an approved apprenticeship program.

BT LABORERS (BTL)

BTL101 General Construction I 2 Credits
Prerequisite: Must be admitted to an approved apprenticeship program Provides basic information for those new to the construction trade, the tools used, and safety.

BTL102 General Construction II 2 Credits
Prerequisite: Must be admitted to an approved apprenticeship program Covers common hazards in construction, tools of the trade, and successful habits for apprentices.

BTL103 General Construction III 2 Credits
Prerequisite: Must be admitted to an approved apprenticeship program Covers common hazards in construction and tools of the trade. Hands-on activities will be included.

BTL104 Blueprint Reading 2 Credits
Prerequisite: Must be admitted to an approved apprenticeship program Presents print-reading fundamentals through the use of actual blueprints and work assignments to grasp concepts. Highway construction plans will be introduced. PPE required.

BTL105 Construction Math 2 Credits
Prerequisite: Must be admitted to an approved apprenticeship program Provides a foundation for all the math used in construction through classroom and hands-on activities.

BTL106 Pipelaying Part I 2 Credits
Prerequisite: Must be admitted to an approved apprenticeship program Covers gravity flow pipe systems, the math used during layout and installation, and the tools, PPE, and equipment to perform the work. Trench and excavation safety practices will be reviewed and practiced during hands-on exercises.

BTL107 Pipelaying Part 2 2 Credits
Prerequisite: Must be admitted to an approved apprenticeship program Course covers polyethylene pipe fusion, utility locating programs, tapping, pressure pipe techniques and the tools, PPE, and equipment to perform the work. Safety practices will be reviewed and practiced during hands-on exercises.

BTL108 Permit Required Confined Space 1 Credit
Prerequisite: Must be admitted to an approved apprenticeship program Covers the hazards associated with working in confined spaces and safety precautions that must be taken during this work. Hands-on activities include preparing for and entering a mock confined space.

BTL109 MSHA New Miner Training 1 Credit
Prerequisite: Must be admitted to an approved apprenticeship program Covers operations for new miners at Part 46 mining facilities and fulfills the MSHA training requirements to work for contractors at these facilities. Note: This training is not a substitute for site-specific training that your employer is required to provide.

BTL110 Asbestos Worker 2 Credits
Prerequisite: Must be admitted to an approved apprenticeship program Provides the initial EPA required training for abatement workers. Coursework will include both classroom and hands-on activities.

BTL111 Concrete Worker Part I 2 Credits
Prerequisite: Must be admitted to an approved apprenticeship program Introduces concrete work; increases knowledge and practical experience in the placement and finishing of concrete.

BTL112 Concrete Worker Part 2 2 Credits
Prerequisite: Must be admitted to an approved apprenticeship program Introductes concrete work; increases knowledge and practical experience in the placement and finishing of concrete.

BTL113 Rigging and Signaling 2 Credits
Prerequisite: Must be admitted to an approved apprenticeship program Covers safety and the procedures for working safely around cranes. Hands-on activities include: calculate weights of loads, choose proper rigging hardware and rig the load properly, and signal the crane operator to pick and move the load.

BTL114 Asphalt Worker 2 Credits
Prerequisite: Must be admitted to an approved apprenticeship program Introduces students to working with asphalt. Hands-on activities include: asphalt placement, raking, patching and repairing.

BTL115 Scaffold Builder 2 Credits
Prerequisite: Must be admitted to an approved apprenticeship program Introduces students to building scaffold. Topics include building frame scaffold, scaffold building tools and PPE, systems scaffold, tube and clamp scaffold, and scaffold user safety.

BTL116 Concrete Cutting and Coring 2 Credits
Prerequisite: Must be admitted to an approved apprenticeship program Introduces students to concrete cutting and coring.

BTL117 Mason Tending 2 Credits
Prerequisite: Must be admitted to an approved apprenticeship program Introduces students to mason tending. Topics include safety and health for mason tenders, reinforced masonry, estimating masonry materials, motar, admixtures and grout, stocking masonry materials, the mason tender's duties, the effects of weather on masonry, cleaning masonry, the masonry saw, bracing masonry walls, and plater tending and mixing.

BTL118 OSHA 30 2 Credits
Prerequisite: Must be admitted to an approved apprenticeship program Covers workplace safety and health hazards and the regulations that protect employee on the jobsite. Many construction contractors are requiring employees to have an OSHA 30 card.

BTL119 Foreman Preparedness 2 Credits
Prerequisite: Must be admitted to an approved apprenticeship program Prepares laborers to become foremen. Topics include the foreman's role, assuring crew and job site safely, record-keeping and documentation, project planning and management, effective communication, and employee supervision.

BT HEAVY EQUIPMENT OPERATOR (BTO)

BTO101 Building Trades Heavy Equipment Operator Level I 5 Credits
Prerequisite: Must be admitted to an approved apprenticeship program Provides building trade skills and practices in operating heavy equipment including earth moving equipment such as dozers, scrapers, compactors, backhoes, motor graders, cranes, etc. through classroom and hands-on instruction. This class is Level 1 of the Heavy Equipment Operator Apprenticeship Program.

BTO102 Building Trades Heavy Equipment Operator Level II 5 Credits
Prerequisite: Must be admitted to an approved apprenticeship program Provides building trade skills and practices in operating heavy equipment including earth moving equipment such as dozers, scrapers, compactors, backhoes, motor graders, cranes, etc. through classroom and hands-on instruction. This class is Level 2 of the Heavy Equipment Operator Apprenticeship Program.

BTO103 Building Trades Heavy Equipment Operator Level III 5 Credits
Prerequisite: Must be admitted to an approved apprenticeship program Provides building trade skills and practices in operating heavy equipment including earth moving equipment such as dozers, scrapers, compactors, backhoes, motor graders, cranes, etc. through classroom and hands-on instruction. This class is Level 3 of the Heavy Equipment Operator Apprenticeship Program.

BTO104 Building Trades Heavy Equipment Operator Level IV 5 Credits
Prerequisite: Must be admitted to an approved apprenticeship program Provides building trade skills and practices in operating heavy equipment including earth moving equipment such as dozers, scrapers, compactors, backhoes, motor graders, cranes, etc. through classroom and hands-

on instruction. This class is Level 4 of the Heavy Equipment Operator Apprenticeship Program.

BTO105 Building Trades Heavy Equipment Operator Level V 5 Credits

Prerequisite: Must be admitted to an approved apprenticeship program Provides building trade skills and practices in operating heavy equipment including earth moving equipment such as dozers, scrapers, compactors, backhoes, motor graders, cranes, etc. through classroom and hands-on instruction. This class is Level 5 of the Heavy Equipment Operator Apprenticeship Program.

BTO106 Building Trades Heavy Equipment Operator Level VI 5 Credits

Prerequisite: Must be admitted to an approved apprenticeship program Provides building trade skills and practices in operating heavy equipment including earth moving equipment such as dozers, scrapers, compactors, backhoes, motor graders, cranes, etc. through classroom and hands-on instruction. This class is Level 6 of the Heavy Equipment Operator Apprenticeship Program.

BT PLUMBING (BTP)

BTP101 Building Trades Plumbing Level I 5 Credits

Prerequisite: Admitted to an approved apprenticeship program.

BTP102 Building Trades Plumbing Level II 5 Credits

Prerequisite: Admitted to an approved apprenticeship program.

BTP103 Building Trades Plumbing Level III 5 Credits

Prerequisite: Admitted to an approved apprenticeship program.

BTP104 Building Trades Plumbing Level IV 5 Credits

Prerequisite: Admitted to an approved apprenticeship program. Covers building trade skills and practices in the field of plumbing through classroom and hands-on instruction. Level 4 of the Plumbing Apprenticeship program.

BTP105 Building Trades Plumbing Level V 5 Credits

Prerequisite: Admitted to an approved apprenticeship program.

BTP106 Building Trades Plumbing Level Vi 5 Credits

Prerequisite: Admitted to an approved apprenticeship program.

BTP107 Building Trades Plumbing Level VII 5 Credits

Prerequisite: Admitted to an approved apprenticeship program. Offers advanced building trade skills and practices in the field of plumbing through classroom and hands-on instruction. Level 7 of the Plumbing Apprenticeship program.

BTP108 Building Trades Plumbing Level VIII 5 Credits

Prerequisite: Admitted to an approved apprenticeship program.

BT CONSTRUCTION SHEET METAL (BTS)

BTS101 Building Trades Construction Sheet Metal Level I 5 Credits

Prerequisite: Must be admitted to an approved apprenticeship program Provides building trade skills and practices in the field of construction sheet metal through classroom and hands-on instruction. This class is Level 1 of the Construction Sheet Metal Apprenticeship Program.

BTS102 Building Trades Construction Sheet Metal Level II 5 Credits

Prerequisite: Must be admitted to an approved apprenticeship program Provides building trade skills and practices in the field of construction sheet metal through classroom and hands-on instruction. This class is Level 2 of the Construction Sheet Metal Apprenticeship Program.

BTS103 Building Trades Construction Sheet Metal Level III 5 Credits

Prerequisite: Must be admitted to an approved apprenticeship program Provides building trade skills and practices in the field of construction sheet metal through classroom and hands-on instruction. This class is Level 3 of the Construction Sheet Metal Apprenticeship Program.

BTS104 Building Trades Construction Sheet Metal Level IV 5 Credits

Prerequisite: Must be admitted to an approved apprenticeship program Provides building trade skills and practices in the field of construction sheet metal through classroom and hands-on instruction. This class is Level 4 of the Construction Sheet Metal Apprenticeship Program.

BTS105 Building Trades Construction Sheet Metal Level V 5 Credits

Prerequisite: Must be admitted to an approved apprenticeship program Provides building trade skills and practices in the field of construction sheet metal through classroom and hands-on instruction. This class is Level 5 of the Construction Sheet Metal Apprenticeship Program.

BTS106 Building Trades Construction Sheet Metal Level VI 5 Credits

Prerequisite: Must be admitted to an approved apprenticeship program Provides building trade skills and practices in the field of construction sheet metal through classroom and hands-on instruction. This class is Level 6 of the Construction Sheet Metal Apprenticeship Program.

BTS107 Building Trades Construction Sheet Metal Level VII 5 Credits

Prerequisite: Must be admitted to an approved apprenticeship program Provides building trade skills and practices in the field of construction sheet metal through classroom and hands-on instruction. This class is Level 7 of the Construction Sheet Metal Apprenticeship Program.

BTS108 Building Trades Construction Sheet Metal Level VIII 5 Credits

Prerequisite: Must be admitted to an approved apprenticeship program Provides building trade skills and practices in the field of construction sheet metal through classroom and hands-on instruction. This class is Level 8 of the Construction Sheet Metal Apprenticeship Program.

BT TELECOMMUNICATION TECH (BTT)

BTT101 Building Trades Telecommunication Technician Level I 5 Credits

Prerequisite: Must be admitted to an approved apprenticeship program Provides building trade skills and practices in the field of telecommunication technician through classroom and hands-on instruction. This class is Level 1 of the Telecommunication Technician Apprenticeship Program.

BTT102 Building Trades Telecommunication Technician Level II 5 Credits

Prerequisite: Must be admitted to an approved apprenticeship program Provides building trade skills and practices in the field of telecommunication technician through classroom and hands-on instruction. This class is Level 2 of the Telecommunication Technician Apprenticeship Program.

BTT103 Building Trades Telecommunication Technician Level III 5 Credits

Prerequisite: Must be admitted to an approved apprenticeship program Provides building trade skills and practices in the field of telecommunication technician through classroom and hands-on instruction. This class is Level 3 of the Telecommunication Technician Apprenticeship Program.

BTT104 Building Trades Telecommunication Technician Level IV 5 Credits

Prerequisite: Must be admitted to an approved apprenticeship program Provides building trade skills and practices in the field of telecommunication technician through classroom and hands-on instruction. This class is Level 4 of the Telecommunication Technician Apprenticeship Program.

BTT105 Building Trades Telecommunication Technician Level V 5 Credits

Prerequisite: Must be admitted to an approved apprenticeship program Provides building trade skills and practices in the field of telecommunication technician through classroom and hands-on instruction. This class is Level 5 of the Telecommunication Technician Apprenticeship Program.

BTT106 Building Trades Telecommunication Technician Level VI 5 Credits
Prerequisite: Must be admitted to an approved apprenticeship program Provides building trade skills and practices in the field of telecommunication technician through classroom and hands-on instruction. This class is Level 6 of the Telecommunication Technician Apprenticeship Program.

BUSINESS ADMIN AND MANAGEMENT (BUS)

BUS101 Introduction to Business 3 Credits
Provides the student a broad background about the modern business world. An important course for students who are considering choosing a business major.

BUS107 Business Speech Communications 3 Credits
Focuses on speech communication skills. Includes effective listening and feedback methods, voice improvement, group and team interaction, developing messages for positive and negative audiences, preparation and presentation of an oral report.

BUS108 Business Letters and Reports 3 Credits
Prerequisite: ENG 95, 98, 99, or equivalent writing course or appropriate scored on WNC placement or equivalent exam. Students should meet with a WNC Counselor to determine readiness based on placement based on readiness exams, high school coursework, or other factors. Develops letter and report writing skills including proper word choice, letter tone, and structure. Demonstrates how these skills are best used in business letters, memoranda, reports and other business documents.

BUS110 Human Relations for Employment 1-3 Credits
Provides students/prospective employees with knowledge and understanding of self and others for effective interactions in the workplace. Emphasizes employability skills such as communication, work habits and attitudes, ethics, conflict management, motivation and problem solving.

BUS115 Business Mathematics 3 Credits
Reviews fundamental mathematical processes for the vendor and the consumer. Discounts, commissions, depreciation, overhead and interest rates are included.

BUS198 Special Topics 1-6 Credits

BUS271 Introduction to Employment Law 3 Credits
Prerequisite: BUS 101. Recommend MGT 283 Provides a framework to develop productive and effective employers and employees in the workplace. Topics include federal and state labor and employment laws and how they impact employers, employees and the workforce environment.

BUS273 Business Law I 3 Credits
Teaches the nature and sources of law. Studies the court systems and law as related to contracts, negotiable instruments, sales, insurance, and agencies.

BUS295 Work Experience I 1-6 Credits

BUS299 Business Capstone 3 Credits
Prerequisite: Completion of a minimum of 45 units of requirements for an AAS degree in business or consent of instructor. Concludes various business concepts introduced throughout the business program by merging acquired skills and concepts through the business plan with additional emphasis on job preparation and business ethics.

COMPUTER AIDED DRAFTING DESIGN (CADD)

CADD100 Introduction to Computer Aided Drafting 3 Credits
Prerequisite: IS 101 and MATH 110 or higher Uses AutoCAD software to produce working drawings. Emphasizes constructing and editing two-dimensional geometry and placing drawing annotation.

CADD105 Intermediate Computer-Aided Drafting 3 Credits
Prerequisites: CADD100 or consent of instructor Provides instruction and training in advanced two-dimension AutoCAD commands. Covers the use of symbols and symbol libraries. Introduces three-dimensional drawing.

CADD120 Architectural Drafting I 3 Credits
Prerequisites: CADD100 or equivalent experience Stresses blueprint reading skills. Introduces residential working drawing concepts leading to a full set of professional level working drawings.

CADD245 Solid Modeling and Parametric Design 3 Credits
Provides training and instruction in using parametric solid modeling software to create solid model parts, assemblies and working drawings.

CIVIL ENGINEERING EMPHASIS (CEE)

CEE495 Special Topics 3 Credits
Additional prerequisites or corequisites: CONS 108 and CONS 114 and CEM 456 Study and/or experimentation in areas of special current and modern fields that concerns construction managers. Teaches students to research different possibilities and their implications on the modern construction industry. Repeatable up to six units.

CONSTRUCTION MANAGEMENT (CEM)

CEM100 Fundamentals of Construction Management 3 Credits
Provides an overview of the construction industry roles, responsibilities, and risks from perspectives of owners, constructors, designers, financial institutions, and government agencies. Study of construction process techniques and applications.

CEM330 Soils and Foundations for Construction 3 Credits
Additional prerequisite: CONS 114. Introduction to basic concepts of soils and foundations including compaction, compressibility, settlement, shear strength and site investigations.

CEM350 Facility Systems Design and Construction I 3 Credits
Additional prerequisites: CONS 109 and MATH 126 Introduces mechanical systems for facilities including HVAC systems, plumbing, electrical, communications and other systems used int he process of utility services. Provides detailed instruction on how to analyze needs, determine the related scope of work, design and construction of these systems.

CEM432 Temporary Construction Structures 3 Credits
Additional prerequisites: CONS 109 and MATH 126. Introduces the analysis, design, and construction of temporary structures including formwork, false work, shoring, rigging, and access units. Addresses cost analysis, load and pressure calculations and safety considerations and requirements.

CEM451 Construction Estimating 3 Credits
Additional prerequisites: CONS 109 and MATH 126 Covers principles and procedures used in estimating construction costs. Includes application of quality determination, estimate pricing, specifications, subcontractor and supplier solicitation, risk assessment and risk analysis, and final bidding preparation. Computer based estimating software used for semester project.

CEM452 Construction Cost Control 3 Credits
Additional prerequisites: ACC 201 and MATH 126 Covers construction cost management including productivity and cost reporting/analysis concepts. Includes financial/cost issues/cash flow for the construction firm including reporting methods and percentage of completion techniques. Covers performance/profitability enhancement, earned value management, construction bonding and insurance issues, and firm and job-site analysis.

CEM453 Construction Scheduling 3 Credits
Additional Prerequisites: CONS 109, 281, and MATH 126 Provides an overview of scheduling and resource optimization. Includes short-interval scheduling, Gantt charts, linear, and matrix scheduling formats. Covers network techniques including CPM and PERT concepts and calculations and computer applications using Microsoft Project.

CEM454 Heavy Construction Methods and Equipment 3 Credits
Additional prerequisites: CEM 330 and MATH 126 Covers characteristics, capabilities, limitations, uses, and selection techniques for heavy construction methods and equipment process planning, simulation, fleet operations, and maintenance programs

CEM455 Construction Management Practice 3 Credits
Additional prerequisites CEM 451, CEM 452, and CEM 453: Includes direction and operation of construction organizations with examination of general contracting, design-build, and construction management methods. Covers synthesis of project management concepts, applications, and limitations through case studies and semester projects.

CEM456 Construction Management Capstone 3 Credits
Additional prerequisites or corequisites: CEE 462 and CEE 463 Provides an integration of all elements of the construction management undergraduate education, from inception to contract award, and applying them to selected construction projects. Introduces contemporary construction industry issues into student projects.

CEM485 Construction Law and Contracts 3 Credits
Additional prerequisites: CONS 118 Provides information on legal problems in the construction process. Covers stipulated sum, unit price, cost-plus contracts, construction lien rights and bond rights, scope of work issues, builders risk issues, risk-shifting, and case studies.

COUNSELING EDUC PSYCHOLOGY (CEP)

CEP121 Introduction to the College Experience 1 Credit
Covers study skills, time management, major selection, and other factors associated with success in college.

CORE HUMANITIES (CH)

CH201 Ancient and Medieval Cultures 3 Credits
Prerequisites: ENG101 Provides an introduction to Greek, Roman and Judeo-Christian culture through the Middle Ages.

CH202 The Modern World 3 Credits
Prerequisites: ENG101 Explores the intellectual, literary and political history of Europe from the Renaissance to the present.

CH203 American Experience & Constitutional Change 3 Credits
Prerequisites: ENG101 Emphasizes the origins of the U.S. and Nevada constitutions and issues such as equality and civil rights, individualism and civil liberties, federalism, environmentalism, urbanization and industrialization, as well as religious and cultural diversity. Satisfies the United States and Nevada Constitutions requirements.

CH212 Science, Technology, and Society in the Modern Era 3 Credits
Prerequisite: Eng 101 Analyzes history and culture of the modern world, exploration of scientific revolutions and methods, rise and global spread of science-based technologies, and their impact on nature, the human body, society and the world.

CHEMISTRY (CHEM)

CHEM241L Organic Chemistry for Life Sciences Laboratory I 1 Credit
Prerequisites: CHEM122 ; Corequisites: CHEM241 Introduces the chemistry of carbon compounds; functional groups; relationships among molecular structure, properties and reactivity and biological relevance. For life and environmental sciences majors. Three hours laboratory.

CHEM242L Organic Chemistry for Life Sciences Laboratory II 1 Credit
Prerequisites: CHEM241 & CHEM241L; Corequisite: CHEM242 Provides an emphasis on functional groups, fundamental reaction mechanisms, and biomoleculaes. For life science and sciences majors. Three hours laboratory.

CHEM100 Molecules and Life in the Modern World 3-4 Credits
Prerequisites: MATH120 or higher Introduces chemistry with emphasis on impacts on human society, environmental issues, energy sources and life processes. Includes four laboratory experiments.

CHEM121 General Chemistry I 4 Credits
Prerequisite: MATH 126 or placement into higher MATH courses (excluding MATH 176 and STAT 152) Recommended prerequisite for students who intend to enroll in CHEM 122: MATH 126 &127 or MATH 128 Provides fundamentals of chemistry including reaction stoichiometry, atomic structure, chemical bonding, molecular structure, states of matter and thermochemistry. Three hours lecture/three hours laboratory.

CHEM122 General Chemistry II 4 Credits
Prerequisites: CHEM121 & MATH126 & MATH127, MATH128 Provides fundamentals of chemistry including solutions, kinetics, equilibria, thermodynamics, electrochemisty, nuclear chemistry and properties of inorganic and organic compounds. Three hours lecture/three hours laboratory.

CHEM220 Introductory Organic Chemistry 4 Credits
Prerequisites: CHEM121 Surveys the principles of carbon chemistry. Credit allowed in only one of CHEM 220 or 241. Three hours lecture/three hours laboratory.

CHEM241 Organic Chemistry I 3 Credits
Prerequisites: CHEM122 Introduces the chemistry of carbon compounds; functional groups; relationships among molecular structure, properties and reactivity and biological relevance. For life and environmental sciences majors. Credit allowed in only one of CHEM 220 or 241. Three hours lecture.

CHEM242 Organic Chemistry II 3 Credits
Prerequisites: CHEM241 Provides an emphasis on functional groups, fundamental reaction mechanisms, and biomoleculaes. For life science and sciences majors. Continues CHEM 241. Three hours lecture.

COMPUTER INFORMATION TECHNOLOG (CIT)

CIT110 A+ Hardware 3 Credits
Introduces the fundamentals of computer system repair. Students learn the hardware and software elements that define an operating computing system. Troubleshooting methods and the use of diagnostic tools are taught with reinforcement provided using hands-on exercises. Successful completion of this course will place a student in good standing to take the nationally recognized A+ certification exam created by the computing industry.

CIT112 Network + 3 Credits
Prerequisites: None Introduction to the concepts and practices needed to function in an entry level network technician capacity. Course content is mapped to current domains within the Comp/TIA Network+ Certification

CIT114 IT Essentials 4 Credits
Provides a comprehensive overview of the primary operating systems and the support of hardware devices. Demonstrates the integration between hardware and software. Emphasis is on installing, configuring, troubleshooting and upgrading a PC and working with computer users as an IT technician. Non-transferable/non-applicable towards an AA or AS degree

CIT128 Introduction to Software Development 4 Credits
Recommended prerequisite: MATH 95 or appropriate score on the WNC placement exam. Offers a first course in programming and software development, and assumes no prior programming experience. Introduces the basic syntax of a programming language and stresses the principles of good software engineering. Introduces HTML (the language of the Web), Webscripting (dynamic Web content), and SQL (Structured Query Language), which is used to access relational databases.

CIT129 Introduction to Programming 3 Credits
Prerequisites: IS101 or consent of instructor Offers a language-independent, introductory course on computer program design and development. Emphasizes identification and solution of business problems through various design tools.

CIT130 Beginning Java 3 Credits
Prerequisites: CIT129 or previous programming experience with consent of instructor Teaches Java, an object-oriented programming language used in general-purpose computing, Web development, client-server computing, n-tier e-commerce applications, and Web-based applets. Object-oriented programing techniques and hands-on learning will be emphasized. Students will complete several computer programming projects.

CIT133 Beginning C++ 3 Credits
Prerequisites: CIT129 or consent of instructor Teaches the "C++" programming language. Object-oriented programming techniques and hands-on learning will be emphasized. Students will complete several computer programming projects.

CIT134 Beginning C# Programming 3 Credits
Prerequisite: CIT 128 Introduction to the C# programming language. Uses C# programming language for solving problems. Covers C#'s control structures, Object Oriented Concepts, simple graphical displays, file input/output and error handling.

CIT148 Beginning Python Programming 3 Credits
Prerequisite: CIT 128 recommended or consent of instructor Introduction to the Python programming language. Covers Python data types, input, output, operators, decision and looping statements, functions, lists, exceptions and files.

CIT151 Beginning Web Development 3 Credits
Prerequisites: IS101 or consent of instructor Introduces students to XHTML and Web page construction. Topics cover construction and management of Web sites and creation of Web pages utilizing standards-based technologies such as Cascading Style Sheets. Emphasis on developing interoperable web sites that work with standards compliant web browsers. Interoperability with non standards-compliant web browsers is covered. As a technology driven course, graphic design is not emphasized. May be taught using basic text editing or a web-development tool such as Dreamweaver.

CIT152 Web Script Language Programming 3 Credits
Prerequisites: CIT 151 Programming class providing instruction in the creation of interactive web pages using technologies such as Javascript, SQL, CSS and HTML; investigates client- and server- side programming techniques.

CIT173 Introduction to Linux 3 Credits
Prerequisites: Basic computer literacy skills. Provides an introduction to the Linux Operating System. Topics include Linux origins, file system, user commands and utilities, graphical user interfaces, editors, manual pages and shells.

CIT180 Database Concepts and Sql 3 Credits
Prerequisites: CIT129 or equivalent programming experience or consent of instructor Teaches basic principles of data modeling and relational database design. Class is targeted for people with little or no SQL knowledge. Provides a comprehensive overview of query writing, focusing on practical techniques for the IT professional new to relational databases. Course accents hands-on learning in a Structured Query Language (SQL) and SQL procedures.

CIT183 Database Administration 3 Credits
Prerequisites: CIT 180 or consent of instructor Introduces the primary responsibilities of a database administrator. Includes instructions on installing a DBMS, such as SQL Server or Oracle, to manage database objects, to monitor performance, to manage data storage, to oversee database security and user access, to ensure database connectivity, and to plan for backup and recovery.

CIT198 Special Topics: Comp Info Tch 1-5 Credits
Applies to assorted short courses and workshops covering a variety of subjects.

CIT211 Microsoft Operating System Management 3-5 Credits
Through lectures, discussions, demonstrations, textbook exercises and classroom labs, teaches the basic skills and knowledge necessary to help prepare for the Microsoft Certified Professional (MCP) exam on the topic of a current Microsoft Workstation operating system.

CIT212 Microsoft Networking II 3-5 Credits
Through lectures, discussions, demonstrations, textbook study and hands-on lab exercises, teaches the basic skills and knowledge necessary to implement, administer and maintain the current Microsoft Windows Server Operation System.

CIT213 Microsoft 365 Security Administration 3-5 Credits
Prerequisites: CIT212 or consent of instructor Through lectures, discussions, demonstrations, textbook study, and hands-on lab exercises, teaches the basic skills and knowledge necessary to configure and maintain Microsoft Windows Network Infrastructure services and resources.

CIT214 Microsoft Azure Administration 3-5 Credits
Prerequisites: CIT213 or consent of instructor Through lectures, discussions, demonstrations, textbook study, and hands-on lab exercises, teaches the basic skills and knowledge necessary to implement, administer and maintain a Microsoft Directory Services environment.

CIT217 Security + 3 Credits
Prerequisites: Instructor Consent Introduces fundamental concepts of information security. Provides a basic understanding of best practices and current standards and explores topics of increasing importance in the industry as a whole. Provides practical knowledge and skills using monitoring and detection tools in a lab environment.

CIT220 Routing and Switching 4 Credits
Prerequisites: CIT 112 or Consent of Instructor Introduces the concepts and practices needed to function in an entry level network technician capacity. Course content is mapped to current domains within the Cisco ICND and CCNA certification exams.

CIT230 Advanced Java 3 Credits
Prerequisites: CIT130 Builds upon the foundation constructed in Beginning Java. Since Java works behind the scenes to power Internet applications, this class will focus more heavily upon application development with an emphasis on client-side and server-side techniques. Topics include, but not limited to, inheritance, interfaces, exception handling, javafx, input and ouput to files and databases, data structures, generics, and searching and sort algorithms.

CIT248 Advanced Python Programming 3 Credits
Prerequisite: CIT 148 Focus on Python as an object-oriented language and introduction to Python collections, modules and packages. Techniques for accessing data in relational databases and testing methodologies are included as part of development of larger programs.

CIT251 Advanced Web Development 3 Credits
Prerequisites: CIT 151 Extends student knowledge and skills with HTML, CSS and Scripting. Introduces additional web-related techniques used to make web pages more engaging and more versatile across multiple platforms in a mobile environment.

CIT263 Introduction to IT Project Management 3 Credits
Introduces students to the concepts of project management as used within the information technology fields of study.

CIT270 Network Tools 4 Credits
Prerequisites: CIT 112 or Consent of Instructor Introduces current needed tools and techniques to effectively enumerate, map, document, investigate, and configure within current network architectures and environments. Focuses on tools and methods needed in computer and network technician, and cybersecurity roles.

CIT273 Network Defense 3 Credits
Prerequisites: Instructor Consent Details network security information domains regarding planning to protect a network, as well as detecting and responding to network attacks.

CIT274 Ethical Hacking 3 Credits
Prerequisites: Instructor Consent Explains basic IT security concepts and models. Introduces concepts of penetration testing to validate security measures and identify vulnerabilities; formulate a basic security policy; demonstrate basic penetration attacks; assess risks and countermeasures; explain legal and ethical concerns as they apply to penetration testing; explores methods to gain access to computer resources and methods to prevent/reduce vulnerabilities.

CIT275 Hacking Forensics Investigation 3 Credits
Prerequisites: Instructor Consent Provides key baseline knowledge and practices in the digital forensic domains including file systems, operating systems, network and database systems, websites and email.

CIT280 Introduction to Blockchain Concepts 3 Credits
Prerequisites: MATH 124 or higher Introduction to Blockchain technology; a type of distributed ledger technology. Covers what blockchain is, how

blockchain was developed, how blockchain works, and the primary issues, challenges and opportunities blockchain faces. Engages students in hands-on contextualized code exercises, to lay a strong foundation for blockchain development.

CIT281 Intermediate Blockchain Concepts 3 Credits
Prerequisites: MATH 124 or higher, CIT 280 Builds on the concepts introduced in CIT 280 to address intermediate concepts related to blockchain; including the concepts of access, privacy, and integrity. Provides an overview of the practical landscape for the blockchain workforce, including industry-specific applications, different types of blockchain, common project types, and limitations and opportunities that might define blockchain in the future.

CIT284 Unity Programming I 3 Credits
Prerequisites: CIT 134 Teaches the basics of C# programming within Unity software to create interactivity in games, apps, AR/VR and other experiences. The course objectives are aligned with current industry standards set by professionals and educators leading to Unity Industry User Certification.

CIT285 Unity Programming II 3 Credits
Prerequisites: CIT 284 Teaches the ability to create VR experiences and programs within Unity software. The course objectives are aligned with current industry standards set by professionals and educators.

CIT299 Independent Study Comp Info Technology 1-6 Credits
Prerequisites: available to students who have completed most core and emphasis requirements and have a 2.5 or better GPA. Written consent of a full-time instructor is required Offers students special projects involving subjects or skills related to the CIT curriculum. This project will be designed with a faculty advisor. Class will have variable credit of one to six depending on the course content and number of contact hours required. Course may be repeated. It may be substituted for another course with special permission of the division.

CIT330 Designing Virtualized Systems 4 Credits
Prerequisites: CIT 112 and CIT 211 Teaches students to install, configure, and manage vSphere; to install a complete virtual network on VMware Workstation consisting of ESXi hosts, a domain controller, a vCenter server, and an iScsi SAN. Course prepares students for VCA-DCV and VCP-DCV certifications.

CIT363 Advanced Project and Earned Value Management 3 Credits
Prerequisites: Admission to BAS Organization and Project Management Program, CIT 263 Advanced study of Project Management techniques and methodology. Topics include: Earned Value Management, Financial Instruments, Standard Industry Codes, Concepts of Accounting Theory, Budget/Proforma, use of MS Project, Excel, Visio, PowerPoint, and Access to develop, track, present Project Management data for management review.

COMMUNICATION (COM)

COM101 Oral Communications 3 Credits
Introduction to the principles and practices of public speaking.

COM102 Intro to Interpersonal Communication 3 Credits
Introduction to the field, principles and concepts of interpersonal communication.

COM113 Fundamentals of Speech Communication 3 Credits
Prerequisites: None Introduces principles and theories of speech communication. Includes participation in public speaking and interpersonal communication.

COM215 Introduction to Group Communication 3 Credits
Prerequisites: None Introduces communication as it functions within small task groups. Emphasizes observation and analysis of actual small group behavior and on improvement of communication skills within the small group setting. Topics to include leadership, conflict, norms, role structure, cohesiveness and decision making. Course stresses student involvement in exercises, discussions and group projects.

COM299 Special Topics in Communication 3 Credits
Investigates a special topic or technique of speech communication.

COM412 Intercultural Communication 3 Credits
Factors important to meaningful communication across cultures with emphasis on intercultural differences in North America.

CONSTRUCTION (CONS)

CONS108 Construction Materials and Methods I 4 Credits
Prerequisite: MATH 110 or higher. Studies the various types of buildings and structures utilized in industrial, commercial and residential construction. Examines peculiarities and potential problem areas for each type of construction. Construction sequencing, inspection sequencing and required testing will be outlined as well as observable "red flags" that can be indicative of potential problems.

CONS109 Construction Materials and Methods II 4 Credits
Prerequisite: CONS 108 Teaches students about the typical materials used in the construction of bridges, roads, pathways, and small commercial buildings. Includes testing procedures, material properties, design, specification, and installation methods using certification standards and guidelines.

CONS111 Commercial Building Codes 3 Credits
Introduces the international residential building code. Covers aspects of any code and how to search, interrupt, understand, and implement the code.

CONS118 Construction Contract Documents 2 Credits
Prerequisite: BUS 107 and ENG 100 or 101 with a grade of C or better Explores various bid documents including architectural and engineering blueprints, shop drawings and proposals. Common construction contracts and their implications will be explained as well as accepted procedures for resolution of contract disputes.

CONS120 Blueprint Reading and Specification 3 Credits
Equips students with technical and practical interpretation of blueprints. Assignments are made in relation to complete sets of working drawings. Students study construction relationships between architectural, structural, electrical and mechanical drawings, bidding along with inspection procedure technique.

CONS121 Principles Of Construction Estimating 3 Credits
Prerequisite: CONS 120 and CONS 216 Presents basic criteria and procedure for estimating labor and material in residential and commercial applications.

CONS198 Special Topics in Construction 0.5-6 Credits
Various short courses and experimental classes covering a variety of subjects. Course will be variable credit of one-half to six credits depending on the course content and number of hours required. May be repeated for up to six credits.

CONS205 Construction Site Safety 1-3 Credits
Includes 30 hours of authorized training addressing the OSHA construction standards. Additional topics include the identification of asbestos, lead and radon in potential construction projects. Upon completion, students will be issued a course completion wallet card by the U.S. Department of Labor's Occupational Safety and Health Administration.

CONS230 Electrical Distribution System 2 Credits
Prerequisites: CONS 120 Explains electrical theory, distribution systems and wiring techniques utilized in the construction industry. Topics will include high voltage distribution, grounding, GFCI's, transformers, load centers and circuits. Actual wiring techniques will be practiced in conjunction with electrical troubleshooting.

CONS260 Certified Inspectors of Structures-Residential 3 Credits
Provides prescribed course of instruction for Certified Inspector of Structures as per the state of Nevada.

CONS261 Under-Floor Inspections-Certified Inspector 1 Credit
Prerequisites: CONS260B Provides instruction on all of the under-floor components that the Certified Inspector of Structures must inspect to complete a certified inspection per 645D of the Nevada Administrative Code. Students will complete two supervised under-floor inspections and prepare extensive narrative inspection reports for evaluation. They will be required to sign "hold harmless" waivers when conducting inspections off state property.

Students are strongly encouraged to have medical insurance that provides coverage in the event of a job-site injury.

CONS262 Above-Floor Inspections for Certified Inspector 2 Credits
Prerequisites: CONS260 Provides instruction on all of the above-floor components typical of residential construction. Seismic and structural hardware will be discussed as will load-bearing, load-transferring and non-load-bearing assemblies. Extensive mechanical and electrical systems analyses will be conducted. Students will prepare extensive narrative inspection reports for evaluation, and sign "hold harmless" waivers when conducting inspections off state property. Students are strongly encouraged to have medical insurance that provides coverage in the event of a job-site injury.

CONS263 Supervised Residential Inspections for Certification 2 Credits
Prerequisites: CONS260 Provides instruction on conducting residential inspections as per 645D of the Nevada Administrative Code. Students will explore methodologies for conducting inspections and develop an inspection format that they will utilize while completing ten supervised inspections. Students must complete ten inspection reports to be evaluated by the instructor and sign "hold harmless" waivers when conducting inspections off state property. Students are strongly encouraged to have medical insurance that provides coverage in the event of a job site injury.

CONS270 Construction Management 1 Credit
Prerequisites: CONS 260 or Consent of Instructor Provides the necessary lecture and laboratory experience to satisfy the state regulations concerning the General Level Inspection Regulation NAC 645D.120. Course number or instructor approval needed.

CONS275 Master Inspector Requirements 1 Credit
Prerequisites: CONS 270 and consent of Instructor Provides the necessary lecture and laboratory experience to satisfy the state regulations concerning the Master Level Inspection Regulation NAC 645D.130.

CONS281 Construction Planning Scheduling and Control 3 Credits
Explores project implementation including logistics, scheduling, delegation of responsibility and quality control.

CONS290 Internship in Construction 3 Credits
Prerequisites: None Studies project management techniques on-site under the supervision of a project manager or superintendent.

CONS295 Work Experience I 1-6 Credits
Prerequisites: consent of instructor Studies project management techniques on-site under the supervision of a project manager or superintendent.

CONS451 Advanced Internship in Construction 3 Credits
Additional prerequisites: CONS 281 and consent of instructor. Studies advanced project management techniques on-site under the supervision of a project manager or superintendent and instructor. In consultation with the student, based on the specific internship, instructor determines additional learning objectives in addition to standard course learning objectives. Includes interaction with the instructor on a weekly basis. Assignments are required.

COMPUTER & OFFICE TECHNOLOGY (COT)

COT204 Using Windows 3-9 Credits
Covers how the Windows Graphic User Interface is used, how to customize Windows and how to use the various accessories and parts of the Windows program.

COT262 Intermediate Spreadsheets Concepts 3 Credits
Prerequisites: IS101 or consent of instructor Studies the concepts and capabilities of computer spreadsheet systems. Teaches command and macro generation. Students gain experience generating spreadsheet templates, graphs and macros as business problem-solving tools. When offered for variable credit, content will be divided as follows: A) Concepts and capabilities of the computer spreadsheet with spreadsheet generation; B) Experience with the user-level menu access of the software, including graphing; C) More advanced capabilities of database and macro generation.

COUNSELING & PERSONAL DEVELOP (CPD)

CPD102 Career Exploration 0.5-3 Credits
Acquaints students in choosing a career suitable to them. Involves a systematic approach to making a career choice, covering self-assessment, decision making techniques, and current occupational information. Appropriate for those undecided as to a career direction or who wish more career information prior to focusing their academic studies.

CPD116 Substance Abuse-Fundamental Facts and Insights 3 Credits
Covers topics related to substance abuse in society: identification of substance, reasons for abuse of alcohol and of drugs, signs and symptoms of substance abuse, and approaches and techniques recognized as effective in substance abuse counseling.

CPD117 Introduction to Counseling 3 Credits
Presents an overview of basic communication and counseling skills and the foundations of the helping relationship. Includes experimental situations such as role playing and group exercises.

CPD123 Career Choices and Changes 1-3 Credits
Offers career development and job seeking strategies. Acquaints students in choosing a suitable career and the necessary work readiness skills to gain and maintain successful employment. Includes Career assessment activities and employability skills training, such as job application, resume, and job interview skills. Covers disability rights and accommodations in the workplace.

CPD125 Career Accelerators for Success 1-3 Credits
Provides opportunity to acquire and strengthen social and emotional intelligence skills (soft skills) the career differentiators in the 21st century workplace. The course leads from knowledge of self to interaction with others and other career accelerators. The course may include assessment tools such as StrengthsFinder and WorkKeys.

CPD129 Communication Techniques 1 Credit
Teaches skills to help students become more assertive and improve their ability to communicate effectively. Covers communication techniques that can be used in the workplace and a variety of situations.

CRAFTS (CR)

CR137 Creative Crafts II 1-3 Credits
Introduces students to crafts, stressing design principles and expressive qualities utilizing a variety of craft materials.

CRIMINAL JUSTICE (CRJ)

CRJ103 Communication Within the Criminal Justice Field 3 Credits
Prepares the student to be able to communicate within the criminal justice field by introducing him/her to the five basic communication skills: report writing, non-verbal communication, basic public speaking, interviewing and interrogation skills, and courtroom testimony. * This class must be taken before attending the Western Nevada State Peace Officer Academy

CRJ104 Introduction to the Administration of Justice 3 Credits
Provides an overview of the American criminal justice system, its development, components, and processes; includes consideration of crime and criminal justice as a formal area of study.

CRJ106 Introduction to Corrections 3 Credits
Studies the history and development of correctional agencies, particularly prisons. Examines ideas influencing contemporary correctional institutions. Explores the relationship of the Department of Corrections to other criminal justice system components.

CRJ111 Firearms I 3 Credits
Prerequisites: None Covers the moral and ethical aspects of the use of deadly force, firearm handling, safety, defensive tactics, marksmanship and qualification. This course only offered as part of the POST Academy.

CRJ115 Cultural Recognition and History of Patrol for Police Academy 3 Credits
Prerequisite: Acceptance to the Police Officers Standards and Training Academy Provides necessary training to recognize cultural awareness and bias recognition in the practice of patrol for law enforcement. Includes proper training and history of patrol basics with the integration of communication of various types, such as interpersonal, and cultural diversity.

CRJ116 Fundamentals of Investigations and Corrections for Police Academy 3 Credits
Prerequisite: Acceptance to the Police Officers Standards and Training Academy Provides the fundamental knowledge and training to conduct interrogations and basic criminal investigation for Category I peace officers. Overview of correctional institutions and supervision of offenders for Category I and III peace officers as required for Nevada POST certification.

CRJ117 Crisis Intervention and De-escalation for Police Academy 3 Credits
Prerequisite: Acceptance to the Police Officers Standards and Training Academy Provides crisis intervention training and de-escalation techniques for the peace officer standards and training academy. Teaches skills that will allow the peace officer to interact in a safer manner with possible threats they may encounter and to assist in the prevention of escalated force.

CRJ155 Juvenile Justice System 3 Credits
Introduces the field of police work with juveniles. Focuses on juvenile crime problems and their causes, detention and processing of the juvenile offender, practices of the juvenile court, and case disposition.

CRJ164 Principles Of Investigation 3 Credits
Prerequisites: CRJ 104 or consent of instructor Examines the fundamentals of investigation: crime scene search and recording of information, collection and presentation of physical evidence, sources of information, scientific aids, case preparation, and interviews and interrogation procedures.

CRJ170 Physical Training for Law Enforcement 1 Credit
Prerequisites: None Provides the physical training necessary for all police recruits to meet or exceed State of Nevada Peace Officer Standards and Training requirements in order to be certified as a peace officer. This course offered only as part of the POST Academy.

CRJ211 Police in America 3 Credits
Explores the historical development, roles, socialization, and problems of police work.

CRJ215 Probation & Parole I 3 Credits
Surveys the probation and parole system of the U.S. through its evolution to the present. Shows different systems within the U.S. and focuses on executive clemency, parole, rights of prisoners, probationers and parolees, and strategies for treatment.

CRJ219 Emergency Vehicle Operation and Control 3 Credits
Prerequisites: None Teaches police recruits methods of emergency vehicle operation and control in such areas as shuffle steering, steering motion dynamics and vehicle braking (lock-wheel, ABS, impending), pursuit driving and defensive techniques. This course only offered as part of the POST Academy.

CRJ220 Criminal Procedures 3 Credits
Prerequisites: CRJ101 Examines the origin, development, and rationale of the structure and procedures of the American criminal justice system. Emphasizes arrest, search and seizure, confessions, and other related legal issues.

CRJ222 Criminal Law and Procedure 3 Credits
Prerequisites: CRJ 104 or consent of instructor Provides an integrated overview of the elements of substantive criminal law and the fundamental concepts of due process and fairness underlying American criminal procedures.

CRJ225 Criminal Evidence 3 Credits
Examines the origin, development, philosophy, and constitutional basis of evidence. Covers constitutional and procedural considerations which affect arrest, search, and seizure.

CRJ229 Defensive Tactics 3 Credits
Prerequisites: None Provides police recruits with training in the areas of self-protection against armed persons armed with dangerous and/or deadly weapons. Training in the use of holds, come alongs, restraints, and baton use on uncooperative suspects, prisoners, or the mentally ill. This course is only offered as part of the POST Academy.

CRJ230 Criminal Law 3 Credits
Prerequisites: CRJ101,LAW101 Examines substantive criminal law with particular attention to crime, intent, attempts, search and seizure, and the laws of arrest. Relates criminal law to the working police officer. Covers rights and duties of citizen and officer under criminal law.

CRJ234 Introduction to the Courts and American Legal System 3 Credits
Prerequisite: CRJ 104 or consent of instructor Introduces the judicial branch of government, its history, roles, structure and hierarchy of the courts, the central actors and processes. Compares and contrasts the roles of the other branches of government; its organization and interrelationship of the courts within our system of federal, state, and local governments.

CRJ260 911 Dispatch Emergency Telecommunicator Academy 12 Credits
Prerequisites: 4 hour sit-in in Dispatch Center (prior to class start date) Focuses on the skills needed to become a dispatcher with law enforcement agencies, fire centers, trucking firms, taxicab companies, etc. During the 12-credit semester-long course, students will be required to spend 44 hours job shadowing dispatchers, fire fighters and law enforcement officers. They will attend law classes, build their communication and typing skills, and participate in practical scenarios.

CRJ265 Introduction to Physical Evidence 3-4 Credits
Surveys the forensic sciences to show their role in the use of physical evidence in matters of criminal and/or civil law. Focuses on the value of modern scientific investigations.

CRJ270 Introduction to Criminology 3 Credits
Examines how society interacts with crime and delinquency through the use of the criminal justice system. Studies effective interaction and communication between the general public and members of the criminal justice system. Emphasizes the understanding of criminal behavior from a sociological and psychological perspective.

CRJ295 Work Experience – Corrections 1-6 Credits
Prerequisites: CRJ101 or consent of instructor Provides the student with on-the job, supervised and educationally directed work experience.

CRJ296 Work Experience - Juvenile Justice 1-6 Credits
Prerequisites: CRJ101 or consent of instructor Provides the student with on-the job, supervised and educationally directed work experience.

CRJ297 Work Experience - Law Enforcement 1-6 Credits
Prerequisites: CRJ101 or consent of instructor Provides the student with on-the-job, supervised and educationally directed work experience.

CRJ298 Work Experience - Probation and Parole 1-6 Credits
Prerequisites: CRJ101 or consent of instructor Provides the student with on-the-job, supervised and educationally directed work experience.

COMPUTER SCIENCE (CS)

CS135 Computer Science I 3 Credits
Prerequisites: MATH128 or higher or satisfactory score on a placement exam Introduces modern problem solving and programming methods. Emphasis is placed on algorithm development, data abstraction, procedural and object-oriented design, implementation, testing, and documentation of computer programs. Students will write several computer programs.

CS202 Computer Science II 3 Credits
Prerequisites: CS135 Emphasizes problem solving and program development techniques. Typical numerical and non-numerical problems are examined. Emphasis is placed on data abstraction, object-oriented design, implementation, testing, and documentation of elementary data structures such as lists, stacks, queues and trees. Students will write and test several non-trivial computer programs.

CISCO TECHNOLOGIES (CSCO)

CSCO120 Ccna Internetworking Fundamentals 4 Credits
Introduces the architecture, structure, functions, components, and models of the Internet and other computer networks. Uses the OSI and TCP layered models to examine the nature and roles of protocols and services at the application, network, data link, and physical layers. Principles and structure of IP addressing and the fundamentals of Ethernet concepts, media, and operations are introduced.

CSCO121 Ccna Routing Protocols 4 Credits
Prerequisites: CSCO120 or consent of instructor Covers the architecture, components, and operation of routers, and explains the principles of routing and routing protocols. Students analyze, configure, verify, and troubleshoot the primary routing protocols RIPv1, RIPv2, EIGRP, and OSPF.

CSCO130 Fundamentals of Wireless Lans 4 Credits
Introduces wireless LAN concepts and focuses on the design, planning, implementation, operation and troubleshooting of wireless networks. Covers a comprehensive overview of technologies, security and design best practices with particular emphasis on hands-on skills.

CSCO220 Ccna Lan Switch Wireless 4 Credits
Prerequisites: CSCO120 Covers an in-depth understanding of how switches operate and are implemented in the LAN environment for small and large networks. Beginning with a foundational overview of Ethernet, provides detailed explanations of LAN switch operation, VLAN implementation, Rapid Spanning Tree Protocol (RSTP), VLAN Trunking Protocol (VTP), Inter-VLAN routing, and wireless network operations. Students analyze, configure, verify, and troubleshoot VLANs, RSTP, VTP, and wireless networks. Campus network design and Layer 3 switching concepts are introduced.

CSCO221 Ccna Wan Fundamentals 4 Credits
Prerequisites: CSCO121 & CSCO220 Explains the principles of traffic control and access control lists (ACLs) and provides an overview of the services and protocols at the data link layer for wide-area access. Students learn how to implement and configure Point-to-Point Protocol (PPP), Point-to-Point Protocol over Ethernet (PPPoE), DSL, and Frame Relay. WAN security concepts, tunneling, and VPN basics are also introduced.

CSCO230 Security Operations Center Fundamentals 4 Credits
Prerequisites: CSCO121 Designed to prepare students for certification in this field (Cisco and CompTIA security exams). Teaches how to design and implement security solutions to reduce the risk of revenue loss and vulnerability. Combines hands-on experience, instructor-led lectures, and a Web based curriculum for students. Provides an introduction to network security and overall security processes.

CSCO280 Ccnp Advanced Routing 4 Credits
Prerequisites: CSCO221 or CCNA Certification Prepares students with the knowledge and skills to necessary to use advanced IP addressing and routing in implementing scalability for Cisco ISR routers connected to LANs and WANs. Covers topics on Advanced IP Addressing, Routing Principles, Multicast Routing, IPv6, Manipulating Routing Updates, and configuring basic BGP, Configuring EIGRP, OSPF, and IS-IS. Recommended preparation for the Building Scalable Cisco Internetworks exam required to become a Cisco Certified Network Professional (CCNP).

CSCO281 Ccnp Secure Convg Wide Nt 4 Credits
Prerequisites: CSCO221 or CCNA Certification Prepares students with the knowledge and skills necessary to secure and expand the reach of an enterprise network to teleworkers and remote sites with focus on securing remote access and VPN client configuration. Covers topics on the Cisco hierarchical network model as it pertains to the WAN, teleworker configuration and access, frame mode MPLS, site-to-site IPSEC VPN, Cisco EZVPN, strategies used to mitigate network attacks, Cisco device hardening and IOS firewall features. Recommended preparation for the Implementing Secure Converged Wide Area Networks exam required to become a Cisco Certified Network Professional (CCNP).

CULINARY (CUL)

CUL100 Sanitation/HACCP 2 Credits
Covers all aspects of food service sanitation; focuses on causes and prevention of foodborne illness and the implementation of HACCP quality assurance systems. Includes lectures, demonstrations, and special projects. Students take the ServSafe Food Service Manager Certification exam. Passing confers NRA (National Restaurant Association) certification.

CUL105 Basic Skills Development 3 Credits
Provides students with basic culinary skills to enroll in kitchen or baking production classes. Competencies include culinary history, professionalism, basic safety and sanitation, standardized recipe use and costing, basic nutrition and menu planning, introduction to ingredients, use of commercial kitchen equipment and hand tools, basic knife cuts and raw ingredient preparation.

CUL106 Understanding Culinary Techniques I 6 Credits
Teaches introductory hot food cookery with emphasis on product utilization, cost effectiveness, timing and presentation. Students practice traditional and modern cooking techniques and good nutrition. Provides hands-on practice utilizing moist and dry heat cooking methods. Students prepare sauces, soups, starches, vegetables and center of the plate entrees. Some menus include practical baking of quick breads and home baked desserts. Chief instructors make frequent demonstrations to reinforce and amplify recipes and lectures.

DANCE (DAN)

DAN108 Pilates I 1 Credit
Introduces the basic theory and techniques of Pilates and the Alexander and the Feldenkrais technique. Covers history of Pilates theory and technique as well as mat work and the basic use of the three pieces of Pilates equipment: the reformer, the trapeze table, and the chair. Emphasizes the application of this theory and technique to dance.

DAN110 Dance for Flexibility and Tone 1 Credit
Introduction to basic techniques for dance flexibility. Students will learn some simple basic Jazz technique, terminology and choreography that includes kicks and leaps, strengthening the core muscles.

DAN132 Jazz Dance (Beginning) 1 Credit
Introduces beginning techniques of jazz dance. May be repeated for up to four credits.

DAN135 Beginning Ballet 1 Credit
Introduces beginning techniques of ballet. May be repeated for up to four credits.

DAN144 Beginning Tap Dancing 1 Credit
Introduces beginning techniques of tap dance. May be repeated for up to four credits.

DAN160 Hip-Hop Dance 1 Credit
Teaches beginning techniques of hip-hop dance. May be repeated for up to 4 credits.

DAN232 Jazz Dance (Intermediate) 1 Credit
Prerequisites: DAN132 Emphasizes intermediate techniques of jazz dance. May be repeated for up to 4 credits.

DAN244 Tap Dance (Intermediate) 1 Credit
Prerequisites: DAN144 or consent of instructor Emphasizes intermediate techniques of tap dance. May be repeated for up to 4 credits.

DAN260 Intermediate Hip-Hop Dance 1 Credit
Prerequisites: DAN160B Teaches intermediate techniques of hip-hop dance. May be repeated for up to 4 credits.

DRAFTING (DFT)

DFT100 Basic Drafting Principles 3 Credits
Introduces basic concepts of technical drawing. Covers perception theories, lettering, sketching techniques, use of drafting instruments, orthographic projection, basic dimensioning, and pictorial drawings. Designed as introductory course for CADD 100.

DFT110 Blueprint Reading for Industry 3 Credits
Teaches those concepts required by machine shops or engineering, electrical and welding industries. Student will begin with simple prints and proceed to more advanced prints.

EARLY CHILDHOOD EDUCATION (ECE)

ECE121 Parent Care Relations 1 Credit
Helps students acquire various communication skills to enhance parent/caregiver relationships. Covers interpersonal communication, listening skills and cooperative problem solving.

ECE122 Observation Skills 1 Credit
Provides parents and teachers various formal and informal methods to enhance their observation and assessment skills. Discussion includes methods for use with developmentally delayed children.

ECE123 Health & Nutrition for the Young Child 1 Credit
Examines the health and nutritional needs of young children. Develops skills in menu planning, selecting safe equipment and toys, routines to ensure good health and policies on illness.

ECE129 Environment for Infant/Toddler 1 Credit
Helps students choose equipment and materials to create a physical environment which is responsive to the infant/toddler total development. Staff considerations and time schedules will be explored.

ECE154 Literature for Preschool Children 1 Credit
Surveys books for use with preschool children. Includes techniques of storytelling and reading to children.

ECE155 Literacy and the Young Child 1 Credit
Emphasizes activities and materials for developing auditory and visual perception and other reading readiness skills in the preschool.

ECE156 Music in the Preschool Curriculum 1 Credit
Outlines activities and materials for teaching music in the preschool, including songs, dances and rhythm activities.

ECE157 Art in the Preschool Curriculum 1 Credit
Describes activities and materials for teaching art in the preschool, including creative development and enjoyment of art through various materials and activities.

ECE168 Infectious Diseases and First Aid 1 Credit
Provides information about infectious diseases and first aid measures in the child care setting. Course content will include recognizing communicable and acute illnesses, management of accidents and injuries, preventive measures, health education, current research, and community resources.

ECE200 The Exceptional Child 3 Credits
Surveys the characteristics and specific needs of special children. Emphasizes teaching and behavioral management as well as available support services.

ECE204 Principles of Child Guidance 3 Credits
Studies effective communication with children in guiding behavior. Emphasis will be placed on techniques which help children build positive self-concepts and individual strengths within the context of appropriate limits and discipline. The study includes uses of direct and indirect guidance techniques as well as introduction to guidance systems.

ECE231 Preschool Practicum: Early Childhood Lab 1-4 Credits
Prerequisites: ECE251 or consent of instructor Allows students to work directly with young children under supervision of a master teacher for three hours per week per credit. Students will contract with the instructor and supervisor for completion of projects. Projects will be related to such areas as routines in the preschool, advanced curriculum planning and implementation, or communication techniques with parents. Lesson plans will be completed and carried out with children.

ECE240 Administration of Preschool 3 Credits
Prerequisites: ECE250 Studies principles and practices in supervision and management of preschool and child care centers, including program planning, organization, budgeting, personnel records, relationships with community resources, regulatory agencies and working with parents.

ECE250 Intro to Early Childhood Education 3 Credits
Introduces students to early childhood education. This course includes the history of child care, regulations, types of programs, legal issues, professional opportunities and current trends and issues. Emphasis is placed on the role of the preschool teacher in enhancing the social, emotional, physical and intellectual growth of preschool-aged children.

ECE251 Curriculum in Early Childhood Education 3 Credits
Prerequisites: ECE 250 Considers methods of planning and teaching curriculum for children 3-5 years old. Included will be curriculum development, children's play, lesson planning, and daily scheduling. Emphasis will be on curriculum development for children 3-5 years old in areas such as art, science, literature, music, language arts, block, dramatic play, etc.

ECONOMICS (ECON)

ECON100 Introduction to Economics 3 Credits
Recommended prerequisite: MATH 95 or higher Offers an introductory overview to supply and demand, the four types of product markets (perfect competition, monopolistic competition, oligopoly and monopoly), operations of markets, consumer and enterprise behavior, price determination. Also covers the measurement of the levels of national income, employment and general prices, and basic causes for fluctuation for these levels.

ECON102 Principles of Microeconomics 3 Credits
Recommended prerequisite: MATH 95 or higher. Covers supply and demand, the four types of markets (perfect competition, monopolistic competition, oligopoly and monopoly), operations of markets, consumer and enterprise behavior, and price determination.

ECON103 Principles of Macroeconomics 3 Credits
Prerequisites: ECON102 or consent of instructor. Recommend MATH 95 or higher. Introduces the study of the determination of levels of national income, employment and prices, and basic causes for fluctuation for these levels.

ECON261 Principles of Statistics I 3 Credits
Prerequisites: MATH126 or equivalent Offers probability and major probability distributions, sampling theory, descriptive statistics, measure of central tendency and dispersion, index figures, and time series.

ECON262 Principles of Statistics II 3 Credits
Prerequisites: ECON261 Offers statistical inference; estimation hypothesis testing, simple linear regression and correlation, and analysis of variance.

EDUCATION (EDU)

EDU110 Success Strategies in Education & Human Development 3 Credits
Prerequisites: None Designed to introduce students to the resources of Western Nevada College and expectations of a college student. Emphasis on education's role in society as well as historical, philosophical and sociological foundations of education and the role of each student within. Introduction to the field of Education as a career choice and major. Includes study skills and strategies to meet college-level study. Exploration of the career preparation path in order to meet goals for timely graduation and career entry.

EDU112 Education Internship 3 Credits
Prerequisites: EDU 110 or Instructor Consent Supervised work and learning experience in research, public, education, business or government organizations related to Elementary or Secondary Education.

EDU201 Introduction to Elementary Education 3 Credits
Introduces the foundations of elementary education, current trends and issues in curriculum and instruction, the roles of teachers and issues of diversity. Includes field experience. A background check may be required for field experience.

EDU202 Introduction to Secondary Education 3 Credits
Introduces the prospective middle/secondary school teacher to the role of thinker/reflective practitioner. Creates awareness of the historical, social, political and economic forces influencing schooling in the United States.

EDU203 Introduction to Special Education 3 Credits
Surveys the various types of exceptionalities. Emphasizes etiology, physical and educational characteristics.

EDU204 Information Technology in Teaching 3 Credits
Studies the use of microcomputers in operations and word processing applicable to classroom for teachers to operate and utilize microcomputers in education. Special instruction fees.

EDU205 Early Foundations in Mathematics 3 Credits
Prerequisites: EDU 201 Comprises math curriculum for children from infancy through the primary grades. Examines what math looks like at each developmental stage, discussing the underlying cognitive processes, and learning specific ways to support the teaching and learning of mathematics in young children's classroom and home environments. Standards, assessment, and understanding the needs of diverse populations also addressed.

EDU206 Classroom Learning Environments 3 Credits
Prerequisites: EDU201 Presents the function and analysis of elementary school classrooms, daily activities, and methods of behavior management. Includes field experience. A background check may be required for field experience.

EDU207 Exploration of Children's Literature 3 Credits
Surveys children's literature: issues, genre, censorship, historical background, book evaluation and selection.

EDU208 Student Diverse Abilities & Backgrnds 3 Credits
Prerequisites: EDU 203 ; Corequisites: EDU 209 Focuses on students with learning disabilities, mental retardation, behavior disorders and language disorders, and their accommodation in general education environments.

EDU210 Nevada School Law 3 Credits
Identifies legal issues in education and illustrates the implications of laws/ mandates in the schools. Guidelines for teachers will provide information on avoiding situations that may lead to litigations. Concepts covered include teacher liability, teacher/student right to free speech and privacy, and accommodations for religious practices and students with disabilities.

EDU214 Preparing Teachers to Use Technology 3 Credits
Addresses designing and constructing a variety of common core educational artifacts for tomorrow's classrooms by way of hands-on advanced information technology applications. Students create a selection of high quality common core educational artifacts that are appropriate and/or applicable for the digital classroom and a Teacher's E-Portfolio.

EDU295 Special Topics in Education 1-6 Credits
Prerequisites: None This course covers special topics relevant to the field of education that vary across semesters.

ELECTRICAL THEORY (ELM)

ELM110 Basic Electricity 0.5-4 Credits
Prerequisite(s): None This course covers basic AC/DC circuit principles and practices. Students will explore areas of electrical and electronic circuits including: circuit theory, components, circuit construction and analysis, proper test equipment usage, troubleshooting methodology, and applications in various technical fields.

ELM112 Electrical Theory, DC 3 Credits
Prerequisite(s): None The study of matter, atomic structure, electron theory, source of electricity, and magnetism. Theory and shop application in Ohm's Law, voltage, current, resistance, and power in series, parallel, and series-parallel direct current circuits.

ELM121 Circuit Design 3 Credits
Prerequisite(s): ELM 110 or ELM 112 Covers the basics of circuit design for automated systems. Integrates the use of elementary electrical and electronic devices as switches, relays, resistors, capacitors, inductors as well as sensors and filters.

ELM127 Introduction to AC Controls 3 Credits
Prerequisite(s): None Familiarizes students with critical electronic components in an industrial control setting. Control of electric motors is explored through the use of schematic symbols, diagrams, relay logic and solderless circuit boards. Students conduct laboratory experiments, building control circuits and learn troubleshooting methodologies.

ELM131 National Electric Code 3 Credits
Prerequisite(s): Must be admitted to an approved apprenticeship program. Survey of the National Electric Code (NEC) and its application to the safe installation of electrical conductors and equipment.

ELM134 Programmable Logic Controllers I 3 Credits
Prerequisite(s): ELM 127 Covers the fundamentals of digital logic and an introduction to programmable logic controllers (PLCs) in a complex mechatronic system. Students will learn the role PLCs play within a mechatronic system or subsystem; will explore basic elements of PLC functions by writing and testing programs to control them; identify malfunctioning PLCs, applying troubleshooting strategies to identify and localize problems caused by PLC hardware.

ELM136 Programmable Logic Controllers II 3 Credits
Prerequisite(s): ELM 134 A continuation of ELM 134. Provides intermediate level skills in Programmable Logic Control (PLC) programming instruction and control concepts. Explores the advanced elements of PLC functions by writing and testing programs to control them. Emphasis placed on programming structure, instructions, and execution. Utilize advanced simulation software to develop and execute various PLC programs. Apply troubleshooting strategies to identify and localize problems caused by PLC hardware.

ELM143 Wiring Techniques 2 Credits
Prerequisites(s): AIT 101 Introduces the concepts of industrial electrical. The course will deescribge the function of electrical prints, panels, the wiring between panels, and wire color coding. Students will be introduced to concepts in control system wiring fundamentals, wiring between and outside panels, panel wiring, wire bundling and experience a projetct in how to wire an elctrical machine.

ELM198 SPECIAL TOPICS IN ELECTRICAL AND MECHANICAL TECHNOLOGY 0.5-4 Credits
Prerequisite(s): Must be admitted to an approved apprenticeship program. Basic understanding and hands-on experience of current theories in electrical and mechanical technologies as well as advanced technologies utilized in industry.

EMERGENCY MEDICAL SERVICES (EMS)

EMS100 Healthcare Provider CPR 0 Credits
Provides instruction of Basic Cardiac Life Support/ Cardiopulmonary Resuscitation for the Healthcare Provider which includes: one and two person rescuer for CPR and management of foreign body obstruction of the airway in adults, children and infants. Instruction also provides for recognition of signs and symptoms requiring AED intervention, safe administration of AED, and common actions that can be utilized for survival, and prevention of risk factors for heart attack and stroke. Certification according to the standards of the American Heart Association (AHA) is issued upon successful completion of course which requires passing of a written examination and practical demonstration. The course satisfies the CPR requirement for students admitted to the nursing and surgical technology programs, nursing assistant and EMS courses. May be repeated for up to one credit.

EMS108 Emergency Medical Technician 8 Credits
Prerequisite: must be 18 years or older. Current CPR certification and required immunizations and tests, and health insurance. See Nursing and Allied Health web site for further information. Prepares individuals to provide basic emergency medical care, according to US Department of Transportation guidelines, to individuals experiencing sudden illness or injury. Course content includes appraisal of scene safety and scene management, assessment and treatment of common emergency patient conditions, including fractures, wounds and airway obstruction. Instruction includes use of emergency medications and automatic external defibrillation (AED) devices as well as components of continuing care during emergency ambulance transportation to the emergency department (ED). Clinical experience includes Emergency department hospital and ambulance rotations to meet a required minimum of 10 patient contacts. Upon successful conclusion of the course the student is eligible to sit for the National Registry Examination for EMT Basic.

EMS115 Advanced Emergency Medical Technician 8 Credits
Prerequisite: Certified as a Nationally Registered EMT within the last two years. CPR Certificate. Must be at least 18 year of age at the time of enrollment. Prepares students to incorporate knowledge of basic and advanced emergency medical care for critically ill and emergent patients to reduce the morbidity and mortally associated with acute out-of-hospital medical and traumatic emergencies. The A-EMT is educated to safely provide more advanced airway maintenance skills and the ability to recognize basic electrocardiography (ECG) arrhythmia's and utilize pharmacological interventions within the scope of practices. Other competencies include interventions such as suctioning, initiation of IV therapy, control of breathing and shock, and cardiopulmonary resuscitation. The A-EMT provides care based on site assessment data and works alongside other EMS and health care professionals as an integral part of the emergency care team.

EMS200 Fundamentals of Paramedic Medicine 3 Credits
Prerequisite: Admission to the Paramedicine Program. Provides information to the paramedic student on the history, roles and responsibilities, safety, wellness, medical-legal, and ethical issues of paramedic medicine.

EMS203 Paramedic Skills 3 Credits
Prerequisite: Admission to the Paramedicine Program. Familiarizes the Paramedic student with nationally recognized testing. Provides skill-based practice and assessments in a laboratory environment.

EMS205 Principles of Pathophysiology 3 Credits
Covers medical terminology, microscopic and gross anatomy and physiology. Designed to go beyond what is covered in the anatomy and physiology review of each section in the national standard curriculum.

EMS206 Principles of Pharmacology/Medication Administration & Venous Access for the Paramedic 3 Credits
Prerequisite: Admission to the Paramedicine Program. Prepares Paramedic students to understand and be able to integrate the principles of pathophysiological pharmacology and the assessment findings to formulate a field impression and implement a pharmacologic management plan for patients in the prehosptial environment. Introduces the Paramedic student to venous access, IO access, medication administration and drug calculations that will be used in treating patients in the prehosptial environment.

EMS207 Airway Management and Ventilation for Paramedics 3 Credits
Prerequisite: Admission to the Paramedicine Program. Integrates complex knowledge of anatomy, physiology, and pathophysiology into the assessment to develop and implement a treatment plan with the goal of ensuring a patient airway, adequate mechanical ventilation, and respiration for patients of all ages.

EMS209 Patient Assessment for Paramedics 3 Credits
Prerequisite: Admission to the Paramedicine Program. Introduces the Paramedic student to a comprehensive physical examination and assessment, which includes history taking, clinical decision making, communications, and documentation.

EMS210 Principles of Cardiology for the Paramedic 3 Credits
Prerequisite: Admission to the Paramedicine Program. Prepares the Paramedic student to identify single and multi-lead cardiac rhythms and treat those rhythms considered to be life-threatening with electrical therapy. Teaches skills including defibrillation, cardioversion, and cardiac rhythm interpretation. Prepares the student to assess, manage, and treat various cardiovascular emergencies that includes ventricular fibrillation, bradycardia, tachycardia, myocardial infarction, cardiogenic shock, pulmonary edema, angina pectoris, congestive heart failure, hypertension, PEA (pulseless electrical activity), and asystole.

EMS211 Paramedic Care for Medical Emergencies & ACLS 4 Credits
Prerequisite: Admission to the Paramedicine Program Prepares the Paramedic to identify, assess, manage, and treat various medical emergencies. Topics include Neurology, Endocrinology, Allergies and Anaphylaxis, Gastroenterology, Urology, Toxicology, Infectious and Communicable Diseases, Behavioral and Psychiatric Disorders, and associated pharmacological interventions.

EMS212 Paramedic Trauma Emergencies & International Trauma Life Support (ITLS) 4 Credits
Prerequisite: Admission to the Paramedicine Program Integrates assessment findings with principles of epidemiology and pathophysiology to formulate a field impression to implement a comprehensive treatment/disposition plan for an acutely injured patient.

EMS214 Special Populations in Paramedicine 3 Credits
Prerequisite: Admission to the Paramedicine Program Prepares the Paramedic student to identify, assess, manage, and treat age related emergencies, and other special challenges. Topics include obstetrics, neonatology, pediatrics, geriatrics, abuse and assault, and patients with special challenges.

EMS215 EMS Incident Management and Operations 3 Credits
Prerequisite: Admission to the Paramedicine Program Prepares the student to implement a plan for patients with common complaints. Prepares the Paramedic with the concepts of medical incident command, ambulance and rescue operations, hazardous materials, incident, and crime scene awareness.

EMS216 Hospital Clinical Experience for the Paramedic 4 Credits
Prerequisite: Admission to the Paramedicine Program Offers planned hospital clinical experience designed to meet and enhance the specific learning needs of the student. Each area of clinical experience has been selected to correspond with a specific area of didactic classroom instruction and to meet the clinical skill objectives outlined by the program. Students will function under the direction of a nurse or physician preceptor.

EMS217 Field Internship for the Paramedic 4 Credits
Prerequisite: Admission to the Paramedicine Program and Completion of all other Didactic and Clinical Paramedic courses Introduces the paramedic student to Advanced Life Support (ALS) prehospital operations. Familiarizes students with procedures and care provided by paramedics in the field. Students will be a third person on a paramedic unit and will work under the direct supervision of a paramedic preceptor.

ENGLISH (ENG)

ENG90 Basic Writing I 3 Credits
Provides instruction in basic English skills including grammar, parts of speech, agreement, syntax, punctuation, spelling, and sentence structure. Focuses on a variety of sentence patterns and types. Provides extensive practice in grammar and usage. Grading: pass/fail.

ENG95 Basic Writing II 3 Credits
Provides instruction in basic writing skills including sentence patterns and basic paragraph development. Provides review of grammar, mechanics, punctuation, spelling, and word usage. Some sections of the course may be offered through computer-assisted instruction. Grading: Satisfactory/ Unsatisfactory.

ENG98 Basic Writing III 3 Credits
Prerequisites: appropriate score on WNC placement examination or equivalent examination Helps students improve their writing for school or on the job. Offers practice in sentence, paragraph and short essay writing with attention to grammar, sentence structure and punctuation. The student will learn how to combine sentences and paragraphs to communicate clearly and effectively. Grading: pass/fail.

ENG99 Basic Writing Strategies 4 Credits
Provides instruction in basic English skills including sentence patterns and basic paragraph development. Provides review of grammar, mechanics, punctuation, spelling, and work usage. Offers practice in sentence, paragraph, and short essay writing with attention to grammar, sentence structure, and punctuation.

ENG100 Composition – Enhanced 4-5 Credits
Prerequisite: ENG 95 or equivalent writing course or appropriate scored on WNC placement or equivalent exam. Students should meet with a WNC Counselor to determine readiness based on placement based on readiness exams, high school coursework, or other factors. Intensive reading and writing course focusing on writing the expository and argumentative essay.

Emphasis on revising and editing essays for development, coherence, style, and correctness as well as on investigative, reasoning, and organizational skills necessary to create successful research papers. Provides extra assistance in English writing skills, grammar, sentence structure, usage, and punctuation. Includes objectives covered in ENG 101; satisfies the ENG 101 writing requirement for all degrees and certificates of achievement.

ENG101 Composition I 3 Credits
Prerequisite: ENG 98, 99 or equivalent writing course or appropriate score on WNC placement or equivalent examination. Students should meet with a Counselor to determine readiness based on placement or equivalent exam, high school coursework, or other factors. Studies expository writing with special attention to the modes, arrangement and style. Students learn to write essays which are unified, thorough, clear and convincing. Students read essays to augment critical reading skills. They learn the research, reasoning and organizational skills necessary for effective academic and research writing.

ENG102 Composition II 3 Credits
Prerequisites: ENG100 or ENG101. Continues the study of expository writing. Students read and analyze writing and discursive techniques of interpretation, argument, and research.

ENG107 Technical Communications I 3 Credits
Prerequisites: English 99 with a grade of C- or higher or appropriate score on WNC placement examination or equivalent examination. Introduction to expository methods with concentration on specific vocational writing forms including memorandums, formal reports, manuals and proposals. Students will learn how adapt correct paragraph construction to suit the expectations of an occupational audience, in order to communicate clearly and effectively.

ENG199 Independent Study 3 Credits

ENG200 Novels Into Film 3 Credits
Prerequisites: ENG102 or consent of instructor Studies film and novels to examine the transformation in genre when novels are made into films. Students read novels and view films based on those novels to examine the impact of each form upon the audience as well as to understand the differences between literary and film genre. Emphasizes critical reasoning and writing skills.

ENG205 Introduction to Creative Writing 3 Credits
Prerequisites: ENG102 or consent of instructor Offers a beginning writers' workshop in poetry, fiction, and creative non-fiction.

ENG221 Writing Fiction 3 Credits
Prerequisites: ENG102 or consent of instructor Teaches fiction writing in a workshop setting. Includes lectures and discussion of plot, character, style, and elements of fiction. Students are required to produce several works of short fiction.

ENG223 Themes of Literature 3 Credits
Prerequisites: ENG 102 or consent of instructor Offers readings of short stories, poems, plays and novels on a theme selected by the instructor. Course could examine such a topic as the American myth of the frontier or study perceived differences between various multicultural perceptions and attitudes in Europe and the United States.

ENG224 Introduction to Screenwriting 3 Credits
Prerequisites: None. ENG102 highly recommended Teaches students to analyze film works with an eye toward how they work as stories; demonstrate an understanding of the screenplay as a written form; apply what is seen on the movie screen to the screenplay format; write and revise the key scenes for a short film screenplay in the appropriate format; expand on scenes to create a complete short film screenplay.

ENG226 Memoir and Autobiography 3 Credits
Prerequisites: ENG102 or consent of instructor Offers a writing-intensive class which explores various approaches to writing memoirs, autobiography, family history, autobiography-based fiction, or other "life stories," incorporating the classic elements of the personal essay.

ENG261 Introduction to Poetry 3 Credits
Prerequisites: ENG101 Reading and discussion of selected British and American poems with attention to form and content.

ENG266 Popular Literature 3 Credits
Prerequisites: ENG102 or consent of instructor Studies various forms of popular writing, e.g., best-sellers, the western, science fiction, fantasy, the detective story.

ENG271 Introduction to Shakespeare 3 Credits
Prerequisites: ENG102 or consent of instructor Examines Shakespeare's principal plays read for their social interest and their literary excellence.

ENG282 Intro to Language & Literary Expression 3 Credits
Explores the forms and function of language with special application to literary study.

ENG295 Directed Study in English 1-3 Credits
Prerequisites: ENG102 Allows students to pursue individual writing or research projects under the close supervision and guidance of the instructor.

ENG299 Special Topics in English 1-3 Credits
Includes short courses and experimental classes covering a variety of subjects. May be repeated for up to three credits.

ENGINEERING (ENGR)

ENGR100 Introduction to Engineering Design 3 Credits
Provides overview of engineering practice and exposure to the environment which engineers generally work in. Students will have the opportunity to begin developing information retrieval, technical and interpersonal skills that can be used throughout their educational programs and subsequent careers.

ENERGY (ENRG)

ENRG110 Introduction to Alternative Energy 3 Credits
Introduces alternative and sustainable energy sources and systems, including renewable approaches such as solar and wind.

ENTREPRENEURSHIP (ENT)

ENT200 Fundamentals of Entrepreneurship 3 Credits
Explores the basics of entrepreneurship, introducing students to the various aspects and activities involved. Looks at the characteristics of entrepreneurs, the cycle of entrepreneurship, idea generation and validation of an idea's ability to be successful, how to present a business idea to potential investors and how to take the plunge.

ENVIRONMENTAL SCIENCE (ENV)

ENV100 Humans and Environment 3 Credits
Prerequisites: MATH120 or consent of instructor Provides an interdisciplinary introductory survey of the ecology of natural systems with emphasis on the relationship of humans to the environment. Includes four laboratory experiences.

ENV101 Introduction to Environmental Science 3 Credits
Prerequisite: Math 120 or consent of instructor. Explores the fundamental components and interactions of earth's natural systems, the relationships between humans and environment, and solutions to current and potential environmental problems.

ED PROFESSIONAL DEVELOPMENT (EPD)

EPD276 Management Methods for Substitutes 0.5-3 Credits
Offers practical methods and ready-to-use ideas for K-12 substitutes, including models of discipline, attentions signals, active participation, instant ideas, transition activities, methods for dealing with problem behavior, and inclusion strategies.

EPD295 Special Topics in Educational Professional Development 1-6 Credits
Covers selected topics in education and critical and current issues in education. Repeatable as topics vary.

EPD400 Curriculum, Instruction, and Assessment Projects for Educators 1-3 Credits
Prerequisite: Educator within the Nevada Department of Education System or permission of instructor. Offers insight and methods for improving curriculum design and delivery. Provides students opportunities to design and refine assessment projects for PreK-12 curriculum. Project-based course. May be repeated up to three units.

EPD410 Contemporary Pedagogical Strategies 1-3 Credits
Prerequisite: Instructor Approval Students choose a book(s) to study for professional growth. Each book chosen will include weekly reflections of required reading, lab work, and a self-designed final project. Weekly online discussions required.

EDUCATIONAL PSYCHOLOGY (EPY)

EPY150 Strategies for Academic Success 3 Credits
Helps students to develop effective and efficient study skills. Students will learn how to learn.

ELECTRONICS TECHNOLOGY (ET)

ET104 Fabrication and Soldering Techniques 3 Credits
Introduces electronic fabrication skills, tool operations applied to fabrication techniques of simple circuit boards, reading of schematic diagrams, soldering, drafting and wire wrapping.

ET117 Computer forensics 3 Credits
Introduction to the concept of using computer forensics to conduct a successful computer investigation. Covers acquiring digital evidence and reporting its findings. Covers fundamentals of setting up a forensics lab, acquiring the proper and necessary tools, and how to conduct an investigation and subsequent digital analysis.

ET131 Dc for Electronics 3-6 Credits
Familiarizes students with fundamentals of electronics including how to read resistor color codes, decipher capacitor values, and use electronic schematics to build simple electronic devices. Students conduct laboratory experiments to apply theoretical concepts and will use standard or simulated laboratory instruments such as multimeters. Covers Ohm's Law and Kirchhoff's Laws of voltage and current, and simple series and parallel circuits.

ET132 Ac for Electronics 4 Credits
Prerequisites: ET131 or consent of instructor Familiarizes students with important electronic components, their schematic symbols and how to wire circuits on a solderless circuit board using diagrams. Introduces semiconductors, diodes, and basic theory of transistors and transistor amplifier configurations. Students conduct laboratory experiments and build electronic circuits utilizing these components. Soldering is introduced.

ET155 Home Technology Convergence 4 Credits
Introduction to the components and technologies that make up the "Smart Home". The convergence of home entertainment audio/visual equipment, surveillance and security systems, computer networks, and telecommunications will be taught in both theory and application. Students will build, configure and install cables, wallplates, jacks, control modules and equipment to bring alive the multiple technologies commonly used in a home or small office environment.

ET198 Spec Topics: Electronics 1-6 Credits
Explores various topics of current interest/demand in Electronics Technology.

ET200 Electronics Projects 0.5-6 Credits
Prerequisites: ET131 or consent of instructor Studies special projects in Electronics Technology.

FINANCE (FIN)

FIN101 Personal Finance 3 Credits
Introduces personal financial planning. Emphasizes budgeting, obtaining credit, buying decisions for a home, auto or other large purchases, investment decisions, and retirement planning.

FIN115 Introduction to Investments 3 Credits
Helps students understand the theoretical concepts and analytical foundations necessary for further study in the field. It will provide an overall picture of securities markets, institutions, processes and mechanisms on how stocks and bonds are bought and sold.

FIN310 Applied Accounting and Finance 3 Credits
Prerequisites: Admission to BAS Organization and Project Management Program Designed to provide the keys, concepts and tools used in understanding the financial functions of a business enterprise. Introduces the essential concepts necessary in understanding formal financial statements from the user's perspective.

FRENCH (FREN)

FREN101 Conversational French I 3 Credits
Emphasizes spoken communication. Listening, reading and writing skills will be explored. A vocabulary of French-English words can be developed to suit student needs.

FREN102 French, Conversational II 1-3 Credit
Prerequisites: FREN101 or consent of instructor Offers a second semester of Conversational French designed to continue and improve the skills learned in the first semester.

FREN111 First Year French I 3 Credits
Develops language skills through practice in listening, speaking, reading, writing and structural analysis. Includes an introduction to French culture.

FREN112 First Year French II 3 Credits
Prerequisites: FREN111 or equivalent or consent of instructor Continues with the second semester of the course to build on speaking, writing and reading skills in the French language.

FREN212 Second Year French II 3 Credits
Prerequisites: FREN211 or equivalent or consent of instructor Continues structural review, conversation and writing and reading in modern literature.

FIRE SCIENCE (FT)

FT101 Principles of Emergency Services 3 Credits
Prerequisites: None Provides an overview of fire protection and emergency services; career opportunities in fire protection and related fields; culture and history of emergency services; fire loss analysis; organization and function of public and private fire protection services; fire departments as part of local government; laws and regulations affecting the fire service; fire service nomenclature; specific fire protection functions; basic fire chemistry and physics; introduction to fire protection systems; introduction to fire strategy and tactics and life safety initiatives. FESHE Core Course.

FT104 Nevada Firefighter I 3 Credits
Prerequisites: FT 101 Designed to familiarize the student with the general rules and regulations of fire fighting, use and explanation of forcible entry, protective breathing apparatus, fire streams, first aid, ropes, salvage, fire hose, nozzles and apparatus, ladders, ventilation, inspection, rescue, sprinklers, fire alarms and communications, safety and fire behavior.

FT105 Fire Behavior and Combustion 3 Credits
Prerequisites: None Explores the theories and fundamentals of how and why fires start, spread and are controlled. FESHE Core Course

FT109 Internship in the Fire Science 1 Credit
Prerequisites: FT 101 Provides work experience and skills signoffs that meet the National Fire Protection Association's Firefighter I criteria. Course qualifies students to take the Nevada Fire Fighter I exam. Students must have proof of insurance.

FT110 Basic Wildland Firefighting 3 Credits
Prerequisites: None Addresses the basic elements of wildland fire protection, fire behavior, department organization, apparatus and equipment, fire safety and incident command organization.

FT121 Fire Prevention 3 Credits
Prerequisites: None Provides fundamental knowledge relating to the field of fire prevention. Topics include: 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 and fire investigation. FESHE Core Course.

FT125 Building Construction for Fire Prevention 3 Credits
Prerequisites: None Presents 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, preplanning fire operations, and operating at emergencies. FESHE Core Course.

FT131 Hazardous Materials Chemistry 3 Credits
Prerequisites: FT 101 or Instructor Approval Provides basic chemistry relating to the categories of hazardous materials including recognition, identification, reactivity, transportation, awareness and health hazards encountered by emergency services. FESHE Non-Core Course. Course qualifies students to take the State Fire Marshall Hazardous Materials Awareness and Operations State Exam.

FT152 Legal Aspects of Emergency Services 3 Credits
Prerequisites: FT 101 or Instructor Approval Addresses the Federal, State, and local laws that regulate emergency services and include a review of national standards, regulations and consensus standards. FESHE Non-Core Course.

FT154 Principals of Fire and Emergency Services, Safety and Survival 3 Credits
Prerequisites: None Introduces the basic principles and history related to the national firefighter life safety initiatives, focusing on the need for cultural and behavior change throughout the emergency services. FESHE Core Course.

FT224 Fire Protection Systems 3 Credits
Prerequisites: None Provides information relating to the features of design and operation of fire alarm systems, water-based fire suppression systems, special hazard fire suppression systems, water supply for fire protection and portable fire extinguishers. FESHE Core Course.

FT291 Fire and Emergency Services Administration 3 Credits
Prerequisites: None Introduces the student to the organization and management of a fire and emergency services department and the relationship of government agencies to the fire service. Emphasis on fire and emergency service, ethics and leadership from the perspective of the company officer. FESHE Non-Core Course.

GEOGRAPHY (GEOG)

GEOG103 Physical Geography 3 Credits
Prerequisites: MATH120,MATH126 or higher or consent of instructor Teaches the physical processes of geography, including maps, seasons, weather and climate. Includes at least four lab experiences.

GEOG104 Physical Geography Laboratory 1 Credit
Pre or Corequisite: GEOG103 or consent of instructor. Offers experimental and in-depth investigations designed to illustrate fundamental principles of physical geography..

GEOG106 Introduction to Cultural Geography 3 Credits
Analyzes the culture regions of the world including physical settings, peoples, settlements, economic activities, historical and political factions with primary emphasis on the Old World.

GEOG116 Oceanography 3 Credits
Prerequisites: Math 120 or higher or consent of instructor Fundamentals of oceanography covering a brief history. Including spatial aspects of geological, physical, chemical and biological oceanography. Emphasis on the role of oceans on climate change in the past, present and future.

GEOG121 Climate Change and Its Environmental Impacts 4 Credits
Reviews the past, present and likely future climate changes, together with its associated impacts on the landscape, with emphasis on water resources, species distributions, and wildfire regime.

GEOG200 World Regional Geography 3 Credits
Introduces the world's regions with concentration on parts of the world with which we may be less familiar - many of which are experiencing great changes and have a major impact on our lives in the United States. Specific areas that will be covered include Africa, Asia, and Latin America.

GEOG205 GIS Applications 3 Credits
Introduces a variety of common GIS applications. Through content, lectures and hands-on, students will use ArcInfo to complete a variety of tasks pertaining to the applications that are used in everyday GIS.

GEOG210 Introduction to Geotechnology 3 Credits
Introduces geotechnology, the technological advances used to describe, assimilate, or analyze spatial information. Emphasis is on GIS with discussions on GPS, remotely sensed imagery, Google Earth and other applications. The importation and joining of various datasets is described highlighting how a variety of data sources may be used for analysis of spatial features. Laboratory assignments will demonstrate real world applications derived from the lectures using ArcGIS desktop.

GEOG211 Introduction to Maps and Compass 2 Credits
Introduces the basics of map interpretation. Covers the characteristics of the map, emphasizing its blending of scientific and artistic aspects. Students will delve into map making, interpretation, aerial photography and the use of a GPS to construct maps.

GEOLOGY (GEOL)

GEOL100 Earthquakes, Volcanoes, and Natural Disasters 3 Credits
Investigates geology of the dynamic earth with a focus on geologic hazards. Includes at least four laboratory experiences.

GEOL101 Exploring Planet Earth 4 Credits
Prerequisites: MATH120,MATH126 or higher or consent of instructor 3 hours lecture and 3 hours lab. Investigates the fundamental principles of physical geology, including plate tectonics, earth materials, geologic time, topographic maps and geologic structures.

GEOL102 Earth and Life Through Time 4 Credits
Prerequisites: GEOL101 3 hours lecture and 3 hours lab. Studies the history of the earth and the origins of its landforms, including dating, evolution of organisms, times of extinction, mountain building episodes, and periods of glaciation.

GEOL105 Introduction to Geology of National Parks 3 Credits
Studies geologic processes through the lens of the national park system. Concepts of geologic time, plate tectonics, and the rock cycle will be explored by studying national parks and monuments that highlight geologic examples of the material presented.

GEOL111 Geology of Death Valley National Park 1-2 Credits
Provides a general field experience in geology for students with little or no earth science background. Teaches the basics of rock and landform identification, and the recognition of modern and ancient geologic events through field study of Death Valley National Park.

GEOL112 Geology of Eastern Sierra Nevada 1-2 Credits
Provides a general field experience in geology for students with little or no earth science background. Teaches the basics of rock and landform identification, and the recognition of modern and ancient geologic events through field study of the Eastern Sierra Nevada.

GEOL113 Geology of Lassen Volcanic National Park 1-2 Credits
Provides a general field experience in geology for students with little or no earth science background. Teaches the basics of volcanic rock identification, history of the Cascade Range, and the recognition of modern and ancient geologic events through field study of Lassen Volcanic National Park.

GEOL114 Geology of Lava Beds National Monument 1 Credit
Provides a general field experience in geology for students with little or no earth science background. Teaches the basics of volcanic rock and landform identification, and the recognition of modern and ancient geologic events through field study of Lava Beds National Monument.

GEOL201 Geology of Nevada 3 Credits
Prerequisites: GEOL101 or consent of instructor Studies how Nevada¿s geology has changed through time. Includes Nevada¿s fossils, rocks and minerals, earthquakes and geothermal resources. Includes at least four lab experiences.

GEOL299 Special Topics in Geology 1-5 Credits
Applies to assorted short courses and workshops covering a variety of subjects. May be repeated for up to six units.

GRAPHIC COMMUNICATIONS (GRC)

GRC116 Introduction to Digital Art and Design 3 Credits
Prerequisites: Basic Computer Skills Introduces students to the Adobe Creative Cloud Software (Illustrator, InDesign, Photoshop and Acrobat). Students will explore design ideation, process, and effective design thinking and analysis as it relates to Graphic Design. Presents projects and design exercises that will increase student's technical fluency in industry-standards for Graphic Design software applications.

GRC175 Web Design I 3 Credits
Prerequisites: Basic computer skills. Recommended: GRC 103 and GRC 183.. Introduction to authoring for the World Wide Web using industry standard software applications. Topics covered include planning, designing and building a Web site, aesthetics, creating and optimizing computer graphics for Web, information architecture, navigation and interactivity, Web publishing, Web hosting and site management. Knowledge of the following basic computer skills required: saving, opening, and printing documents, opening and closing applications, creating and managing folders and subfolders, viewing the contents of disk drives and external storage devices, managing desktop items.

GRC200 Design Thinking and Methodologies 3 Credits
Prerequisites: GRC 116 Builds upon the skills and processes learned in GRC 116. Further investigation and advanced techniques of Adobe Creative Cloud Software (Illustrator, InDesign, Photoshop and Acrobat). Course broadens techniques for design ideation, process, and effective design thinking and analysis. Class will present projects and design exercises that will increase student's technical fluency in industry-standards for Graphic Design software applications. Designed to increase conceptual thinking and improve technical skillsets.

GRC210 Typography I 3 Credits
Prerequisites: GRC 116 Introduces students to designing with type for graphic design. Offers readings that outline the historical context of letter forms, while studio-based projects focus on practical analysis, visual and conceptual interaction of type and image, and the creative exploration of type as a formal element.

GRC220 Graphic Design I 3 Credits
Prerequisites: GRC 116, GRC 200, GRC 210 Emphasizes principles and language of graphic design. Provides further development of an understanding of visual communications theories, processes and methods using current industry technologies. Focuses on advancing student's ability, using research and thumbnails, to devise and produce wide varieties of solutions to visual problems through assigned graphic design projects.

GRC275 Web Design II 3 Credits
Prerequisites: GRC175. Recommend GRC188. Offers advanced web page design using industry-standard applications. Topics include CCS layout, advanced site building features, site management, interactivity, and customization.

GRC282 Motion Graphics for Video 3 Credits
Prerequisites: None Offers principles of visual design and color, animation and sound design applied to motion graphic design. Emphasis on designing projects that combine text, graphics, animation, audio and video. Hands-on projects using multimedia authoring software.

GRC290 Internship in Graphic Communications 1-6 Credits
Prerequisite: Completion of 21 units of GRC classes and consent of instructor. Provides supervised work experience within a selected graphic communications business, dependent upon student's selected major emphasis. Designed to apply knowledge to real on-the-job situations in a program designed by a company official and a faculty advisor. Available to students entering their last semester of instruction for the Graphic Communications associate degree. Contact department advisor for application, screening and required skills evaluation.

GRC294 Professional Portfolio 3 Credits
Prerequisites: minimum of 21 credits of GRC design/production classes or consent of instructor Focuses on the development of a portfolio for employment in the graphics communications field. Professional and legal requirements will be explored.

HUMAN DEV AND FAMILY STUDIES (HDFS)

HDFS201 Life Span Human Development 3 Credits
Studies human growth over the life span covering the biological influences on development and the processes of intellectual and social development. Reviews the family system and explores major challenges and developmental issues facing families today.

HDFS202 Introduction to Families 3 Credits
Explores the dynamics of development, interaction, and intimacy of primary relationships in contextual and theoretical frameworks, societal issues and choices facing diverse family systems. This course is taught from a bio-psycho-social approach within the family ecological system context. It incorporates issues relevant to international families and diverse family arrangements within North America. Traditional issues of families are reframed, reconstructed, and questioned. Application of ideas to those working with families in a variety of settings including: physical health, mental health, economic and educational arenas.

HDFS232 Diversity and the Young Child - a Multicultural Perspective 3 Credits
Considers the development of young children from the prenatal period through age 8, focusing on diversity among children. Diversity will be explored in cultural, ethnic and linguistic variations as well as differences in ability and typical/atypical development. Students will seek to understand development and its cultural variations so that teaching young children will be more effective, empathic and aware. This course will explore the many ways of growing up and the worldwide diversity of that process.

HOLOCAUST, GENOCIDE & PEACE ST (HGPS)

HGPS201 Concepts in Holocaust, Genocide and Peace Studies 3 Credits
Prerequisite: None Analyzes the origins of prejudice, hatred, and dehumanizing policies that culminate in major social conflicts, mass destructions and genocides. Delves into global reaction to crimes against humanity and international laws that bring perpetrators to justice.

HISTORY (HIST)

HIST101 U.S. History to 1877 3 Credits
Prerequisite: None. Recommended: Completion or corequisite of ENG 101 or eligibility to enroll in ENG 101. Offers a survey of American history and civilization from the time of the first European settlement to about 1877. Satisfies the United States constitution requirement.

HIST102 U.S. History Since 1877 3 Credits
Prerequisite: None. Recommended: Completion or corequisite of ENG 101 or eligibility to enroll in ENG 101. Covers American history and civilization since the end of the American Civil War and Reconstruction Era. Satisfies the Nevada Constitution requirement.

HIST105 European Civilization to 1648 3 Credits
Covers the development of Western civilization and history from its beginnings in the valleys of the Nile, Tigris, and Euphrates rivers to the mid-17th century rise of strong nation-states.

HIST106 European Civilization Since 1648 3 Credits
Covers Western civilization and history from the mid-17th century to the present.

HIST111 Survey of U.S. Constitutional History 3 Credits
Teaches the origin, development, history of the Nevada and United States constitutions. Examines the American judicial system through a number of significant decisions and will analyze the individuals who made those decisions.Satisfies the U.S. and Nevada Constitution requirements.

HIST203 History of Television 3 Credits
Prerequisites: None. Recommended: Eng 101 Topical survey of television, focusing on historical context and analysis of television genres and themes. Topics will vary.

HIST207 Discover Nevada 1-3 Credits
Explores the many historic sites and scenic areas of Nevada, utilizing lecture discussions, slide presentations, readings and videos.

HIST208 World History I 3 Credits
Prerequisites: None. Recommended: Completion or corequisite of ENG 101 or eligibility to enroll ENG 101 A survey of the societies and cultures of Asia, Africa, the Middle East, Europe, the Americas, and Oceania to 1600.

HIST209 World History II 3 Credits
Prerequisites: None. Recommended: Completion or corequisite of ENG 101 or eligibility to enroll ENG 101 A review of the principal developments in world history since 1600, including scientific and technological revolutions, social revolutions, nationalism, immigration, colonialism, world wars, decolonization, modernization, democracy, and dictatorships.

HIST217 Nevada History 3 Credits
Studies Nevada's history from prehistoric times to the present. Examines the early mining and cattle frontiers, the development of towns and the advent of industrialization as well as the 20th century problems of water, energy, and growth. Satisfies the Nevada Constitution requirement.

HIST225 Introduction to the Vietnam War 3 Credits
Survey of U.S. involvement in Vietnam from 1954 to U.S. withdraws in 1975. Provides an overview of the land, history, and culture of Vietnam and the region. In-depth study of the U.S. involvement in Vietnam. Concludes with an overview of post U.S. involvement issues and the present day Vietnam.

HIST226 Popular Culture and History: Organized Crime 3 Credits
Prerequisite: None. Recommended: Completion or corequisite of ENG 101 or eligibility to enroll in ENG 101 Topical survey of popular culture and history, focusing on historical background and utilizing diverse primary and secondary sources. Emphasis on organized crime, predominantly in the 20th & 21st centuries across the globe. Repeatable up to a maximum of 9 credits.

HIST247 Introduction to the History of Mexico 3 Credits
Introduces pre-Columbian Mexico, Colonial New Spain and Mexican national history to the present.

HIST285 History of Witchcraft 3 Credits
Prerequisites: None. Recommended: ENG 101 Addresses the changing definitions of magic, science, religion and law as they pertain to the supernatural from the beginnings of ancient civilizations through the modern era. Topics will include pagan religions, heresy, possession and exorcism, demons, artistic representations, and gender.

HIST290 The Roaring 20s 3 Credits
Prerequisites: None. Recommended: Completion or corequisite of ENG 101 or eligibility to enroll in ENG 101. Study of American society and culture in the 1920s through the interrelated topics of consumerism, youth culture, the role of the U.S. in the world, post-war retrenchment, the Harlem Renaissance/Jazz Age, and shifting definitions of race and gender.

HEALTH INFORMATION TECHNOLOGY (HIT)

HIT117 Medical Terminology I 1 Credit
Studies word derivations and formation with emphasis upon understanding common usage in the field of health care.

HIT118 Language of Medicine 3 Credits
Applies medical language by body system and appropriate use within the accepted nomenclature and classification systems. This course is designed to meet professional program requirements.

HIT170 Computers in Health Care 3 Credits
Teaches hardware and software components of computers for health information applications. Methods of controlling the accuracy and security of data. Record linkage and data sharing concepts.

HUMANITIES/HUMANISTIC STUDIES (HUM)

HUM101 Introduction to Humanities 3 Credits
Offers an interdisciplinary approach to the humanities. Students study major works in art, music, literature, and philosophy with historical framework.

INFORMATICS (INF)

INF100 Introduction to Informatics I - Basic Concepts 3 Credits
Deals with the nature of Informatics withing the information technology space. Addresses the core concept of integration of people, technology and information. Emphasizes the practical dimension of Informatics, real problems, and the socio-economic situations in which they arise. Presents a variety of Informatics tools from a variety of domains, and their implications for science, engineering, art, the humanities and society.

INFORMATION SYSTEMS (IS)

IS101 Introduction to Information Systems 3 Credits
Introduces the student to the role of computers in today's technology-driven environment, allowing for hands on lab experience. Students will be introduced to the Internet, distance education, and the World Wide Web for research, along with operating systems, word processing, spreadsheets, database and basic multi-media. Upon successful completion of this course, the student will be able to demonstrate basic computer survival skills, understand computer terminology, and create data using a variety of software.

IS201 Computer Applications 3 Credits
Prerequisites: IS101 or experience in office software. Develops the student's knowledge in integrated office productivity software. Topics will cover word processing, database, spreadsheets and working with macro programming. Coursework or experience using office software is essential for successful completion and gives students the foundation to pass expert level certification tests.

IS301 Management Information Systems 3 Credits
Prerequisite: Admission to BAS Organization and Project Management program Introduces business applications, computers in organizations, systems development theory and practice, application develop methodology, changing technology, and concerns about computer security and privacy.

INDUSTRIAL PLANT MECHANICS (IT)

IT208 Fluid Power 1-3 Credits
Prerequisites: None Reviews fluid power mechanics with an emphasis on schematic symbols, circuit operation and design, pneumatic and hydraulic component theory and operation, and industry terminology.

ITALIAN LANGUAGE (ITAL)

ITAL101 Conversational Italian I 3 Credits
Emphasizes spoken communication. Listening, reading and writing skills will be explored. A vocabulary of Italian-English words can be developed to suit student needs. As students progress through this four-semester sequence, they will build incrasing fluency in the spearking, reading and writing of Italian.

ITAL111 First Year Italian I 4 Credits
Prerequisites: None Introduces the Italian language through the development of language skills and structural analysis. Includes an introduction to Italian culture.

ITAL112 First Year Italian II 4 Credits
Prerequisites: ITAL111 or consent of instructor Continues study of the Italian language through the development of language skills and structural analysis. Includes an introduction to Italian culture.

ITAL211 Second Year Italian I 3 Credits
Prerequisites: ITAL112 Emphasizes structural review, conversation and writing, and readings in modern literature.

ITAL212 Second Year Italian II 3 Credits
Prerequisites: ITAL211 Continues structural review, conversation and writing, and readings in modern literature.

JOURNALISM (JOUR)

JOUR103 Introduction to Media and Society 3 Credits
Course designed to create more critically engaged consumers and producers of media. Gain an understanding of how print, broadcast, audio, video and digital media influence and interact with social conditions on the individual, national, and international levels. Systematically observe, interpret, and critique mass and networked media using principles grounded in the social sciences.

JOUR120 Media in Modern Life 3 Credits
Explores the profound transition from life with mass media to life in networked media. Researches the meaning of media through anthropological, political and historical perspectives.

JOUR201 Media Writing 3 Credits
Prerequisites: JOUR103. Teaches writing in journalistic and persuasive styles for mass media. Emphasis on analysis and organization of information, and clarity of expression.

JOUR221 News Gathering & Writing 3 Credits

JAPANESE (JPN)

JPN111 First Year Japanese I 4 Credits
Prerequisites: None Introduces the language through structural analysis and the writing system. Includes some conversation and an introduction to Japanese culture.

JPN112 First Year Japanese II 4 Credits
Prerequisites: JPN 111 Continues study of the language through structural analysis and the writing system. Includes some conversation and an introduction to Japanese culture.

JPN211 Second Year Japanese I 3 Credits
Prerequisites: JPN 112 Continuation of structural analysis of spoken and written Japanese.

JPN212 Second Year Japanese II 3 Credits
Prerequisites: JPN 211 Continuation of structural analysis of spoken and written Japanese.

LABORATORY TECHNICIAN (LTE)

LTE101 Fundamental Phlebotomy 4 Credits
Prerequisites: Vaccinations and major medical insurance required (see requirements for LTE under the Nursing and Allied Health division) Provides knowledge and skills necessary to perform basic collection, identification, and preservation of blood samples as applied to venipuncture techniques. Incorporates finger stick procedures and patient contact methodologies carried out within the ethical, legal and professional boundaries of the roles. Successful completion of LTE 102 is required to sit for national certification examinations offered through a variety of certifying organizations, including the American Society for Clinical Pathology (ASCP).

LTE102 Applied Phlebotomy 3-3.5 Credits
Prerequisites: LTE 101 with C or better. Vaccinations and major medical insurance. See Nursing and Allied Health Division student requirements for LTE. Provides 100 hours of clinical phlebotomy experience (of clinical phlebotomy to apply knowledge and skills learned in LTE 101. Under the guidance of a laboratory technician preceptor, students will perform a minimum of 100 successful, documented blood draws with patients across the lifespan (except infants and toddlers). Upon successful completion with a grade of C or better, students are eligible to sit for a national certification examination offered through a variety of certifying organizations, including the American Society for Clinical Pathology (ASCP).

MATHEMATICS (MATH)

MATH96D Algebra Review for Math 126 2 Credits
Corequisite: Math 126 Offers a second course in algebra. Includes multiplying, dividing, and factoring polynomial expressions, solving polynomial and rational equations, algebraic techniques involving exponents and radicals, and systems of linear equations.

MATH20 Learning Support for MATH 120 1-3 Credits
Prerequisites: None. Corequisite: Enrollment in designated section of Math 120. Provides foundational material to support students in Math 120, Fundamentals of College Mathematics.

MATH24 Learning Support for MATH 124 1-3 Credits
Prerequisites: None. Corequisite: Enrollment in designated section of Math 124. Provides foundational material to support students in Math 124, College Algebra.

MATH26 Learning Support for MATH 126 1-3 Credits
Prerequisites: None. Corequisite: Enrollment in designated section of Math 126. Provides foundational material to support students in Math 126, Precalculus I.

MATH90 Elementary Arithmetic 1-3 Credits
Provides individualized instruction in basic math skills including addition, subtraction, multiplication, and division of whole numbers, fractions, and decimals. Intended for students who need a review of whole numbers before studying fractions. Instruction is tailored specifically to each student's needs.

MATH91 Basic Mathematics 3 Credits
Provides the fundamental operation of whole numbers, fractions and mixed numbers, decimals, percentage, measurement and geometry. The course is intended to provide a thorough review of basics needed in future mathematics courses and in applied fields.

MATH92 Algebra Review 1 Credit
Prerequisite: Previous success in Intermediate Algebra or Algebra II or higher algebra course. Provides a review of algebra that will refresh previously taught concepts. Designed for students who have successfully completed Algebra II or Intermediate Algebra or similar course sometime in the past. Provides a condensed review of topics from Intermediate Algebra intended to help students place into the appropriate course via Accuplacer Exam.

MATH93 Pre Algebra 3 Credits
Prerequisites: MATH91 or equivalent or consent of instructor Prepares students for MATH 95. Helps students who have experienced difficulties with math to get an introduction to the language and concepts of algebra. Provides a transition from self-paced, basic math to the quick pace required in MATH 95.

MATH95 Elementary Algebra 3 Credits
Offers a first course in algebra. Topics include operations with signed numbers; algebraic symbols; evaluating formulas; operations with polynominal, radical and rational expressions; solving equations and application problems using algebra; and elementary graphing. Provides a foundation for the math used in business, science, engineering and related fields.

MATH96 Intermediate Algebra 3 Credits
Offers a second course in algebra. Studies polynomial, rational and radical expressions; linear, quadratic and polynomial equations; linear and absolute value inequalities; relations, functions and their graphs; systems of linear equations; and applications.

MATH98 Developmental Mathematics 3-5 Credits
Prerequisite: None Prepares students for college-level mathematics. Self-paced, computer aided course designed to provide students with the concepts and skills of pre, elementary and intermediate algebra.

MATH100 Math for Allied Health 1-3 Credits
Reviews basic mathematics with emphasis on those skills that apply to calculating drug dosages. Includes fractions, decimals, proportions, percents, English, apothecary and metric systems of measurements.

MATH110 Mathematics for Industry 3 Credits
Covers fractions, decimals, percentages, ratios, proportions, measurement, geometry, and briefly, the fundamentals of algebra and right triangle trigonometry.

MATH120 Fundamentals of College Mathematics 3 Credits
Prerequisite: Success in intermediate algebra, algebra II, MATH 96 or similar course is recommended as preparation for this course. Students should meet with a Counselor to determine readiness based on placement or equivalent exam, high school coursework, or other factors. Studies probability, statistics, business, finance and consumer mathematics. Course is broad in scope and emphasizes applications.

MATH122 Number Concepts for Elementary School Teachers 3 Credits
Prerequisites: MATH120 or consent of instructor Introduces elementary problem solving with emphasis on the nature of numbers and the structure of the real number system. Designed for students seeking a teaching certificate in elementary education.

MATH123 Statistical & Geometrical Concepts for Elementary School Teachers 3 Credits
Prerequisites: MATH120 or consent of instructor Presents elementary problem solving with emphasis on patterns and geometric relationships. Designed for students seeking a teaching certificate in elementary education.

MATH124 College Algebra 3 Credits
Prerequisites: Success in intermediate algebra, algebra II, MATH 96 or similar course is recommended as preparation for this course. Students should meet with a WNC Counselor to determine readiness based on placement or equivalent exam, high school coursework, or other factors. Covers equations and inequalities; relations and functions; linear, quadratic, polynomial, exponential, and logarithmic functions; systems of linear equations.

MATH126 Precalculus I 3 Credits
Prerequisite: Success in intermediate algebra, algebra II, MATH 96 or similar course is recommended as preparation for this course. Students should meet with a Counselor to determine readiness based on placement or equivalent exam, high school coursework, or other factors. Provides a third course in algebra. Topics include: polynomial, rational and radical equations; absolute value and quadratic inequalities; relations and functions; linear, quadratic, polynomial exponential and logarithmic functions, their graphs and applications; and systems of equations.

MATH127 Precalculus II 3 Credits
Prerequisites: MATH 126 with a grade of C- or higher or appropriate score on the WNC placement or equivalent exam or three units of high school mathematics at the level of algebra and above, or consent of instructor Studies circular functions, trigonometric identities and equations, conic sections, complex numbers, and discrete algebra.

MATH128 Precalculus and Trigonometry 5 Credits
Prerequisites: MATH 096 with a grade of C- or better or appropriate score on the WNC math placement or equivalent exam or three units of high school mathematics at the level of algebra and above with a grade of C- or better within the last three years. Studies relations, functions and their graphs; polynomial, rational, exponential, logarithm and trigonometric functions; analytic trigonometry; systems of equations and inequalities; conics; mathematical induction; sequences and series.

MATH176 Introductory Calculus for Business & Social Sciences 3 Credits
Prerequisites: MATH 124, 126 or 128 or equivalent or consent of instructor. Instructs students in fundamental ideas of analytical geometry and calculus. Includes plane coordinates, graphs, functions, limits, derivatives, integrals, the fundamental theorem of calculus. Includes applications to rates, extremalization, and interpretation of integrals.

MATH181 Calculus I 4 Credits
Prerequisites: MATH 127 or MATH 128 or appropriate score on the WNC placement or equivalent exam. Offers fundamental concepts of analytical geometry and calculus, functions, graphs, limits, derivatives, and integrals.

MATH182 Calculus II 4 Credits
Prerequisites: MATH181 or equivalent or consent of instructor. Teaches transcendental functions, methods of integration, conics, vectors.

MATH251 Discrete Mathematics I 3 Credits
Prerequisite: Math 182 A first course in discrete mathematics that provides an introduction to logic, set theory, relations, functions, digraphs, and cardinality.

MATH283 Calculus III 4 Credits
Prerequisites: MATH182 or equivalent or consent of instructor Covers infinite series, vectors, differential and integral calculus of functions of several variables, and introduction to vector analysis.

MATH285 Differential Equations 3 Credits
Prerequisites: MATH283 Presents methods of solving ordinary differential equations with application to physical systems. Includes systems of equations, series solution, numerical solution, and Laplace transforms.

MATH299 Directed Study 1-3 Credits
Prerequisite: Consent of instructor. Provides individual study conducted under the direction of a faculty member.

MATH330 Linear Algebra 3 Credits
Prerequisite: Math 283 Vector analysis continued; abstract vector spaces; bases, inner products; projections; orthogonal complements, least squares; linear maps, structure theorems; elementary spectral theory; applications.

MECHANICAL ENGINEERING (ME)

ME198 Cooperative Training Report 1 Credit
Prerequisites: enrollment in engineering program Guides students in preparation of written reports based on cooperative program assignments.

ME241 Mechanical Engineering: Statics 3 Credits
Prerequisites: PHYS 180; Corequisites: MATH 182 or consent of instructor. Studies static force systems. Topics include resolution and composition of forces, equilibrium of force systems, friction and various constraints, moments of inertia, cables, beams, fluid static, and work.

ME242 Dynamics 3 Credits
Prerequisites: ME 241 or consent of instructor. Studies kinematics and kinetics of particles and rigid bodies in two and three dimensions; relative motion; work and energy; impulse and momentum.

MANAGEMENT SCIENCE (MGT)

MGT103 Small Business Management 3 Credits
Prerequisite: BUS 101 or consent of instructor. Develops an understanding of the small business enterprise with emphasis on how such businesses are started and managed successfully, including planning, finance, marketing, administrative control, and other type of activities.

MGT201 Principles of Management 3 Credits
Prerequisite: BUS 101 or consent of instructor. Studies fundamentals and principles of management; administrative policies, objectives and procedures, and problems of organization control and leadership. MGT 201 is accepted in lieu of MGRS 301 (UNR) or MGT 401 (UNLV) upon validation of content and knowledge by approved College of Business examination, or satisfactory performance ("C" or better) in MGRS 352 (UNR) or MGT 452 (UNLV) during the first year of eligibility to enroll in the appropriate upper division business course at the University of Nevada, Reno or the University of Nevada, Las Vegas.

MGT212 Leadership & Human Relations 3 Credits
Prerequisite: BUS 101 and MGT 201 or consent of instructor. Schools students on understanding and managing human behavior in organizations. Central to the course is developing a better understanding of one's self as a leader and exploring some of the more effective ways of leading others.

MGT235 Organizational Behavior 3 Credits
Prerequisites:BUS 101 and MGT 201 or consent of instructor. Studies concepts, theories and case studies concerning the behavior of people in modern business organizations. Analyzes the internal organization structure, and managerial roles and functions, in the business and other goal-oriented institutions. Studies theory and design of organizational structure, impact of work flow, leadership styles, and control systems on human behavior.

MGT283 Introduction to Human Resources Management 3 Credits
Prerequisite: BUS 101 and MGT 201 or consent of instructor. Develops an understanding of the duties and responsibilities of personnel at the mid-management level.

MGT310 Foundations of Management Theory and Practice 3 Credits
Prerequisites: Admission to BAS Organization and Project Management Program Develops the theoretical foundation development for further study in any field involving management. Explores historical thought and the management of functions of planning, organizing, directing, and controlling. Provides a practical analysis of leadership, communications, and motivation techniques. Concludes with an exploration of current management challenges and trends.

MGT320 Organization and Project Management 3 Credits
Prerequisite: Admission to BAS Organization and Project Management Program Focuses on the key drivers of a successful organization. Emphasizes organization theories and models to analyze and improve performance in the organization. skills and Knowledge of project management and introduced and linked to organization performance.

MGT323 Orgnztional Bhvr & Interpersonal Bhvr 3 Credits
Prerequisite: Admission to the Organization & Project Management program OR admission to the Construction Management program OR consent of Division Director. Examines behavioral influences which affect productivity, organizational effectiveness, and efficiency including: perception, motivation, decision making, communication, leadership, organizational design, group behavior and coping with stress.

MGT367 Human Resource Management 3 Credits
Prerequisites: MGT 323 Considers theoretical concepts and practical approaches relevant to management systems and processes; recruitment, training, appraisal, compensation and labor relations. Emphasis on legal constraints and international management.

MGT371 Leadership and Managerial Skills 3 Credits
Prerequisites: Admission to BAS Organizational and Project Management Program or permission of division director and MGT 310 Focuses on the skills of effective leaders and managers. Emphasis on leadership emergence in work settings, how to lead and manage others effectively, and leadership challenges in the contemporary business landscape such as the intersection of leadership with ethics.

MGT391 Quantitative Analysis 3 Credits
Prerequisite: Admission to BAS Organization and Project Management Program and MATH 120 or higher Covers identification and formulation of decision problems, introduction to the use of quantitative tools in business including linear programming, non-linear programming, game theory, and similar techniques; construction of quantitative models and their relationship to the use of electronic computers in business decision making.

MGT412 Change Management 3 Credits
Prerequisites: Admission to BAS Organizational and Project Management Program Explores critical issues in institutional change, including change management, change readiness and change resistance. Designed to provide techniques and principles on how to introduce change into organizations.

MGT462 Changing Environments 3 Credits
Prerequisites: Admission to the Organization & Project Management program OR admission to the Construction Management program OR consent of Division Director. Focuses on managing ethically in the changing cultural, economic, political, technological and global environments of business.

MGT469 Managing Cultural Diversity 3 Credits
Prerequisites: Admission to the Construction Management program OR consent of Division Director. Provides an understanding of cultural diversity by studying the U.S. workforce. Emphasizes cultural differences in the workplace, valuing diversity, managing diversity in the workplace, and giving competitive advantages.

MGT480 International Management 3 Credits
Prerequisites: Admission to BAS Organization and Project Management Program, MGT 310 Investigation and identification of environment and internal functions of international organization. Emphasis on management challenges for international organizations; major focus on comparing international management approaches.

MGT485 Applied Business Ethics 3 Credits
Prerequisites: Admission to BAS Organization and Project Management Program Provides a specific focus on ethical decision-making, skill development and critical thinking. Examines the ethical problems and conflicts leaders and managers encounter in relating their organizations to a multi-stakeholder environment.

MGT487 Entrepreneurship 3 Credits
Prerequisites: Admission to BAS Organization and Project Management Program. Comprehensive study of the process of judiciously combining the various factors of production in meeting the needs of consumers in creative and profitable ways. Topics include: characteristics of successful managers, starting a new enterprise, forming an entrepreneurial team, venture capital sources, and formulation of a business plan.

MGT496 Strategic Management and Policy 3 Credits
Prerequisites: Admission to BAS Organization and Project Management Program, FIN 310, MGT 310 Emphasis on the application of knowledge from all functional areas of business to organizational problems and the formulation and implementation of organizational strategies.

MGT497 Business Plan Creation 3 Credits
Prerequisite Admission to BAS Organization and Project Management Program and MGT 310 and FIN 310 Teaches how to create investor quality business plans. Follows a step-by-step process to develop a business plan from an opening executive summary to a financial offering.

MARKETING (MKT)

MKT127 Introduction to Retailing 3 Credits
Studies an overview of retail merchandising, including buying, pricing, selling, advertising, sales promotion and display principles.

MKT210 Marketing Principles 3 Credits
Covers the problems of manufacturers, wholesalers, and retailers in the marketing of goods and services. Students will develop a plan applying the marketing principles.

MKT250 Introduction to International Marketing 3 Credits
Prerequisites: BUS 101 and MKT210 or consent of instructor Introduces the various functions of marketing as they are performed in the international environment. Focuses on the problems and decisions facing management in international marketing. Considers the impact of difference in language, aesthetics, religion and business customs on marketing strategies.

MKT261 Introduction to Public Relations 3 Credits
Prerequisite: BUS 101 and MKT 210 or consent of instructor Introduces the techniques of public relations for those holding supervisory or higher positions in management and marketing. Identifies the principles of creating and maintaining good public relations, including employee-employer relations. Customer-employee relations receive emphasis. Focuses on the programming of the total public relations effort and selecting of appropriate strategy, media and persuasive devices to accomplish objectives.

MKT262 Introduction to Advertising 3 Credits
Prerequisite: BUS 101 and MKT 210 or consent of instructor Presents methods and techniques in modern advertising, giving information to do the entire advertising job.

MKT295 Work Experience I 1-4 Credits

MANUFACTURING AND PROD TECH (MPT)

MPT111 Fundamentals of Manufacturing and Automation I 3 Credits
Prerequisite(s): None Introduces the fundamental mechanical and electrical concepts used in industrial applications. This includes the effects of levers and forces on a system; the operation of relay controls; and using basic logic circuits to provide automated control. Simulated tools and lab experiences will be used to apply concepts.

MPT112 Fundamentals of Manufacturing and Automation II 3 Credits
Prequisite(s): MPT 111 or concurrent enrollment Allows students to practice the concepts of production and automation systems management and controls. Enables students to practice manufacturing skills, including robotic and conveyor systems as well as quality integration. Covers the underlying programming, fluid and mechanical transmission concepts of these systems.

MPT114 Fundamentals of Manufacturing and Automation III 3 Credits
Prerequisite(s): MPT 112 or concurrent enrollment A continuation of MPT 112. Production and automation systems management and control are further developed.

MPT160 Mechanical Drive Systems I 3 Credits
Prerequisite(s): ELM 110 or ELM 112 Covers the basics of mechanical components and systems, chain and belt drives in a complex mechatronic system. Teaches the functions and properties of mechanical components and control elements based upon physical principles, and the roles they play within the system. Covers technical documentation such as data sheets, circuit diagrams, displacement step diagrams and function charts while exploring installation, troubleshooting strategies and preventive maintenance.

MECHANICAL TECHNOLOGY (MT)

MT115 Industrial And Materials Handling Automation 3 Credits
Prerequisite: AIT 101 Introduces the concepts of Programmable Logic Controllers (PLC) and computerized control operations. Covers basic PLC programming by describing numbering systems, PLC memory organization, PLC programming software and PLC program logic elements.

MT130 Introduction to the Natural Gas Industry3 Credits
Prerequisites: None Introduces the natural gas industry. Includes history of the gas industry, safety issues, and field operations

MT132 Natural Gas Pipe Joining 3 Credits
Prerequisite: MT 130 Introduces the concepts of natural gas pipe joining. Includes plastic pipe and metal pipe joining. Covers types of joining: plastic solvent, compression coupling, heat fusion, welded and bolted.

MT134 Natural Gas Line Locating & Leak Survey 3 Credits
Prerequisites: MT 130, MT 132 (May be co-enrolled in MT 132) Introduces natural gas pipe leak detection. Includes various pipeline leak configurations and subsystems. Key devices/tools used in the detection of leaks are evaluated. Demonstrates classification, grading and surveying of leaks.

MT160 Hydraulic Power 3 Credits
Prerequisite: AIT 101 Introduces the concepts of how to connect and operate basic hydraulic components and systems, read circuit diagrams and monitor system operation. Exposes students to key topics in hydraulic power and safety, principles of hydraulic pressure and flow, and hydraulic speed control circuits in a wide array of applications.

MACHINE TOOL TECHNOLOGY (MTT)

MTT105 Machine Shop I 3 Credits
Prerequisite: None. Recommend concurrent enrollment in MTT 106 for additional practice and skill development. Introduces basic machine shop skills which include lathe operation, lathe speeds and feeds, precision measuring techniques, layout methods, band saw and drill press operations, and exposure to the science of heat-treating of metals. Shop safety and etiquette will be stressed.

MTT106 Machine Shop Practice I 1-2 Credits
Corequisite: MTT 105. Expands the student's manual skills by putting into practice the theories, and user skills introduced in MTT 105. The emphasis will be geared to a more practical, hands-on experience through the use of lathes, layout techniques, vertical and horizontal band saws, measuring instruments and some vertical mill work. Shop safety and cleanup are always stressed.

MTT110 Machine Shop II 3 Credits
Expands skills introduced in MTT 105 to an intermediate level and introduces further skills which include vertical mill, drill sharpening, speed feeds and some production methods.

MTT111 Machine Shop Practice II 1-2 Credits
Corequisites: MTT110 Further develops student's manual skills by putting into practice the theories and user skills introduced MTT 110. The emphasis will be a more practical, hands-on experience through the use of vertical mill work, layout techniques, vertical and horizontal band saws, measuring instruments and some lathes. Shop safety and cleanup are always stressed.

MTT230 Computer Numerical Control I 4 Credits
Prerequisite: MTT 105 and MTT 110 or consent of instructor. Offers an introductory class to provide a basic understanding of computer numerical control. The student is introduced to the axis systems, absolute and incremental programming, tool offsets, controller operation, and fixture offsets. To better understand CNC programming process, CNC II is recommended as a follow-up. Includes 3 hours lecture, 3 hours lab per week.

MTT232 Computer Numerical Control II 4 Credits
Prerequisite: MTT 230 or consent of instructor. Provides a continuation of MTT 230. Offers the student additional practical experience for development of skills with additional information and exposure to more complex applications of programming, mirror imaging, polar coordinates, tool compensation, threading and computer integrated manufacturing. Includes 3 hours lecture, 3 hours lab per week.

MTT250 Machine Shop III 3 Credits
Prerequisites: MTT110 & DFT110 or consent of instructor Expands skills introduced in MTT 105 and MTT 110 to a more advanced level by developing projects that emphasize tolerances, plan of procedure and blueprint reading. Introduces further skills for surface grinding and tool and cutter grinding.

MTT251 Machine Shop Practice III 1-2 Credits
Corequisites: MTT250 Further develops student's manual skills by putting into practice the theories and user skills introduced in MTT 250. The emphasis will be a more practical, hands-on experience through the use of vertical mill work, layout techniques, vertical and horizontal band saws, measuring instruments and lathes. Shop safety and cleanup are always stressed.

MTT260 Machine Shop IV 3 Credits
Prerequisites: MTT 250 or consent of instructor Concentrates on areas of interest leading to design of an advanced project emphasizing skills learned in MTT 105, MTT 110 and MTT 250.

MTT261 Machine Projects 1-6 Credits
Prerequisites: consent of instructor Permits students to work on special projects of their own choosing and/or explore areas of special interest under the direction of a college instructor.

MTT262 Machine Shop Practice IV 1-2 Credits
Corequisites: MTT260 Allows students additional time to concentrate on areas of interest leading to completion of an advanced project emphasizing skills introduced in MTT 260.

MTT291 Cnc Practice 2-3 Credits
Develops computer aided manufacturing skills with hands on instruction on how to design and prepare manufacture parts using state of the art CAD/CAM software. Safety and clean up are stressed.

MTT295 Work Experience 1-6 Credits
Prerequisites: consent of instructor Provides students with on the job, supervised and educationally directed work experience.

MUSIC (MUS)

MUS103 Voice Class I 3 Credits
Teaches fundamentals of tone production, breath control and practical techniques involved in reading and interpreting songs.

MUS104 Voice Class II 3 Credits
Prerequisites: MUS103 Continues the skills learned in MUS 103.

MUS107 Guitar Class I 2-3 Credits
Studies basic guitar technique, bluegrass, classical and rock styles. No previous musical training required.

MUS108 Guitar Class II 2-3 Credits
Prerequisites: MUS107 or consent of instructor Continues development of skills learned in MUS 107.

MUS111 Piano Class I 3 Credits
Introduces the piano, including instruction in note reading, technique, theory and easy repertoire. Students work in a laboratory setting, each using their own electronic piano.

MUS112 Piano Class II 3 Credits
Prerequisites: MUS111 or consent of instructor Provides a continuation of MUS 111, a class in basic piano technique and theory.

MUS121 Music Appreciation 2-3 Credits
Analyzes styles and forms of music from the Middle Ages through the 20th century, and discusses musical instruments and major composers.

MUS124 History of the American Musical Theater 3 Credits
Offers a cultural, musical and theatrical survey of musical theatre in the United States, from the mid-nineteenth century to the present.

MUS125 History of Rock Music 3 Credits
Explains how cultural, social, political and economic conditions have shaped rock music's evolution. Familiarizes the student with the history of rock music from its origins in Blues through contemporary rock styles. Prominent players and groups of each era will be covered, as well as sociological, economic and cultural factors that shaped the many styles of rock music. Extensive classroom listening will enhance the student's learning experience.

MUS134 Jazz Appreciation 3 Credits
Covers how Jazz music's evolution as an art form unique to the United States has both shaped and reflected the construction of our national identity. Teaches how social and cultural events led to the development of jazz music from 1890 through the 1960's. Prominent players and groups of each era will be covered, as well as sociological, economic and cultural factors that shaped the many styles of American Jazz as evolved.

MUS176 Musical Theatre Practicum I 1-3 Credits
Performance ensemble, centered on public performance of musical theatre literature. Repeatable up to 9 units.

MUS215 Technique of Songwriting 3 Credits
Offers a practical course in composing pop music. Analysis of hit songs and discussion of songs written by the class. Each student will compose melodies and lyrics, helping the poet with music and the musician with poetry.

MUS224 Special Studies in Music Literature 2-3 Credits
Prerequisites: pianists should be of intermediate level proficiency Focuses in depth on a special topic in music literature. Topics might include Baroque, classical, romantic, or 20th century keyboard literature. Students will explore musical topics through both lecture and their own performance of representative works. Class may be repeated for up to six credits.

MUS233 Recording Techniques and Midi I 2 Credits
Covers topics such as the job market, mics, consoles, tape recorders, and special effects. Teaches concepts including signal flow, multi-tracking, EQ, signal processing, MIDI, mixing and mastering. Students will learn to turn a Mac or PC into a multi-track studio.

MUS253 Jazz Improvisation I 2 Credits
Introduces the techniques of jazz improvisation in a laboratory setting.

MUS276 Musical Theatre Practicum II 1-3 Credits
Prerequisite: Six units of MUS 176. Continues skills learned in MUS 176. Repeatable up to 9 units.

MUS299 Special Topics in Music 1-3 Credits

MUSIC APPLIED (MUSA)

MUSA101 Bass-Lower Division 1-2 Credits
Provides a personal introduction to the study and performance of music for bass. Class may be repeated for a total of four credits. Fee covers cost of 14 half-hour private lessons.

MUSA103 Basson-Lower Division 1-2 Credits
Introduces students to the study and performance of music for bassoon. Class may be repeated for a total of four credits. Fee covers cost of 14 half-hour private lessons.

MUSA105 Cello-Lower Division 1-2 Credits
Provides a personal introduction to the study and performance of music for cello. Class may be repeated for a total of four credits. Fee covers cost of 14 half-hour private lessons.

MUSA107 Clarinet-Lower Division 1-2 Credits
Introduces students to the study and performance of music for clarinet. Class may be repeated for a total of four credits. Fee covers cost of 14 half-hour private lessons.

MUSA109 Drum Set 1 Credit
Provides individual instruction in the technique and repertoire of drum set. Class may be repeated for a total of four credits. Fee covers cost of 14 half-hour private lessons.

MUSA111 Euphonium - Lower Division 1-2 Credits
Provides a personal introduction to the study and performance of music for euphonium. No previous musical training required. Class may be repeated for a total of 4 credits. Fee covers cost of 14 half-hour private lessons.

MUSA113 Flute-Lower Division 1-2 Credits
Introduces students to the study and performance of music for flute. Class may be repeated for a total of four credits. Fee covers cost of 14 half-hour private lessons.

MUSA115 Guitar 1-4 Credits
Provides individual instruction in the technique and repertoire of the guitar. Class may be repeated for a total of four credits. Fee covers cost of 14 half-hour private lessons.

MUSA121 Horn - Lower Division 1-2 Credits
Provides personal introduction to the study and performance of music for horn. Class may be repeated for a total of four credits. Fee covers cost of 14 half-hour private lessons.

MUSA123 Oboe - Lower Division 1 Credit
Provides personal introduction to the study and performance of music for horn. Class may be repeated for a total of four credits. Fee covers cost of 14 half-hour private lessons.

MUSA125 Organ-Lower Division 1 Credit
Provides individual instruction in the technique and repertoire of the organ.

MUSA127 Percussion-Lower Division 1-2 Credits
Offers private instruction in the study and performance of percussion instruments. Class may be repeated for a total of four credits. Fee covers cost of 14 half-hour private lessons.

MUSA129 Piano-Lower Division 1-2 Credits
Considers performance and analysis of keyboard literature from various musical eras, instruction of keyboard technique and application of basic music theory to piano literature. Class may be repeated for a total of four credits. Fee covers cost of 14 half-hour private lessons.

MUSA131 Saxophone-Lower Division 1-2 Credits
Introduces students to the study and performance of music for saxophone. Class may be repeated for a total of four credits. Fee covers cost of 14 half-hour private lessons.

MUSA135 Trombone-Lower Division 1-2 Credits
Provides personal introduction to the study and performance of music for trombone. Class may be repeated for a total of four credits. Fee covers cost of 14 half-hour private lessons.

MUSA137 Trumpet-Lower Division 1-2 Credits
Provides personal introduction to the study and performance of music for trumpet. Class may be repeated for a total of four credits. Fee covers cost of 14 half-hour private lessons.

MUSA139 Tuba-Lower Division 1-2 Credits
Provides personal introduction to the study and performance of music for tuba. Class may be repeated for a total of four credits. Fee covers cost of 14 half-hour private lessons.

MUSA141 Viola-Lower Division 1-2 Credits
Provides personal introduction to the study and performance of music for viola. Class may be repeated for a total of four credits. Fee covers cost of 14 half-hour private lessons.

MUSA143 Violin-Lower Division 1-2 Credits
Provides personal introduction to the study and performance of music for violin. Class may be repeated for a total of four credits. Fee covers cost of 14 half-hour private lessons.

MUSA145 Voice-Lower Division 1-2 Credits
Introduces the correct and pleasing use of the singing voice through a well balanced and coordinated study of vocal literature and exercises. Class may be repeated for a total of four credits. Fee covers cost of 14 half-hour private lessons.

MUSA146 Voice II 1-2 Credits
Continues development of correct and pleasing use of the voice for singers through study of vocal literature and exercises.

MUSIC ENSEMBLE (MUSE)

MUSE101 Concert Choir 1 Credit
Teaches representative choral music of all periods. Choir is featured in concerts throughout the WNC service area. May be repeated for a total of four credits.

MUSE111 Concert Band 1 Credit
Prerequisites: Consent of instructor; audition required. Introduces study and performance of orchestral music. Class may be repeated for a total of four credits.

MUSE131 Jazz Ensemble 1 Credit
Prerequisites: intermediate proficiency on a band instrument Introduces study and performance of jazz ensemble literature. May be repeated for up to 4 credits.

MUSE135 Jazz Vocal Ensemble 1 Credit
Prerequisites: instrumentalists should be of intermediate level proficiency. No prerequisites for vocalists Explores a variety of musical styles, including pop, rock and jazz. Class may be repeated for a total of eight credits.

NURSING (NURS)

NURS129 Level I Basic Nursing Skills 2 Credits
Prepares students to provide holistic basic nursing care to residents in a long-term care facility. Students provide total patient care and comfort measures at the level of a nursing assistant while incorporating basic principles of safety and infection control for self and others.

NURS130 Nursing Assistant 6 Credits
Prerequisites: basic Life Support/Healthcare Provider CPR certification. See Nursing and Allied Health website for additional information. Prepares students to function as nursing assistant trainees (NAT) who assist licensed nurses to provide direct care to health care consumers across the lifespan in a variety of heath care settings. The 150-hour competency based course is designed to prepare students to achieve certification as a nurse assistant in the State of Nevada. The course is approved by the Nevada State Board of Nursing and is in accordance with the Omnibus Budget Reconciliation Act (OBRA) and Occupational Safety and Health Agency (OSHA) regulations.

NURS136 Foundations of Nursing Theory 3 Credits
Prerequisites: admission to the nursing program; Corequisites: NURS137 & NURS141 Introduces students to the role of the associate degree nurse in contemporary practice. Students are guided to utilize knowledge from the sciences, humanities and nursing to understand man as a bio/psycho being. Students are introduced to the nursing program organizing concepts and outcomes which include professional behaviors, communication, collaboration, nursing process, clinical decision making, management of care and teaching learning.

NURS137 Foundations of Nursing Laboratory 1 Credit
Prerequisites: admission to the nursing program; Corequisites: NURS136 & NURS141 Provides students with knowledge and practical application of basic nursing skills while incorporating concepts learned in NURS 136. Students learn and practice basic nursing bedside nursing skills in personal care, sterile technique, patient safety, and medication administration. Emphasizes the critical elements of nursing procedures and the scientific rationale for performing the procedures correctly.

NURS141 Foundations of Nursing Clinical 2 Credits
Prerequisites: admission to the nursing program; Corequisites: NURS136 & NURS137 Provides opportunities for students to utilize knowledge, concepts and skills learned in first semester nursing courses to meet the bio/psycho/social needs of patients in a long term acute care facility. Students use the nursing process and Maslow's Hierarchy of Needs at a beginning level to assess, plan, implement and evaluate nursing care.

NURS147 Health Assessment Theory 2 Credits
Prerequisites: admission to the nursing program; Corequisites: NURS148 Provides opportunities for students to gain knowledge necessary to holistically assess adult and elder patients. Students utilize concepts of previously learned content from pre-requisite and co-requisite nursing courses including the nursing process and methods of prioritizing to perform nursing assessment and nursing diagnosis. Students learn the difference among a comprehensive assessment, an ongoing/partial assessment, a focused, problem-oriented assessment and an emergency assessment of a patient.

NURS148 Health Assessment Laboratory 1 Credit
Prerequisites: admission to the nursing program. Incorporates knowledge from NURS 147 to provide students with learning opportunities to collect, organize, analyze and synthesize health assessment data for adult and elder patients in a laboratory setting using simulated and peer assessment models.

NURS149 Mental Health and Illness Theory 3 Credits
Prerequisites: admission to the nursing program; Corequisites: NURS150 & NURS151 Assists students to gain knowledge of nursing care for the patient experiencing primary threats to psychosocial integrity. Examines the principles and practice of psychiatric nursing through a variety of theoretical frameworks and legal and ethical values that guide its practice. Emphasis is placed on the use of culturally relevant therapeutic communication skills, development of therapeutic nurse/patient relationships, and interventions that are grounded in evidence based practice to achieve best practice outcomes.

NURS151 Mental Health and Illness Clinical 1 Credit
Prerequisites: admission to the nursing program; Corequisites: NURS149 & NURS150 Requires students to utilize the nursing process to apply knowledge of the principles and practice of psychiatric nursing to the care of patients experiencing disruptions in psycho/social functioning. Collaborative experiences involving students, members of the psychiatric health care team, patients and their families occur at acute care and outpatient settings. Relevant legal and ethical issues are explored within the context of care of patients with disruptions in psychosocial integrity.

NURS152 Foundations of Pharmacology in Nursing I 1 Credit
Prerequisites: admission to the nursing program. Provides students with an overview of pharmacology with an emphasis on clinical applications within the context of the nursing process and prioritization of needs; with

special consideration given to the physiological and psycho/social needs of patients. Explores indications, modes of action, effects, contraindications and interactions for selected drugs. Specific nursing responsibilities related to drug administration are emphasized.

NURS153 Foundations of Pharmacology Nursing II 1 Credit
Prerequisites: Successful completion of the first semester of the nursing program. Provides a continuation of study of pharmacological principles and practices to achieve safe administration of medications. Selected drug classifications are presented, with an emphasis on understanding intended and unintended effects of drugs on body systems. Provides an overview of pharmacology with an emphasis on clinical applications within the context of the nursing process and prioritization of needs.

NURS156 Foundations of Pharmacology In Nursing III 1 Credit
Prerequisite: admission to the nursing program and NURS 153 Provides a continuation of study of pharmacological principles and practices through in-depth application of principles of pharmacology, pharmacokinetics and pharmacodynamics. Designed to expand the nursing student's knowledge of pharmacotherapeutics, which includes the cellular response level, for the clinical application within the context of the nursing process and prioritization of needs for patients across the lifespan. Selected drug classifications of pharmacological agents are examined and applied through case study application and analysis providing opportunity for development of the nursing competencies of clinical judgement, professional identity, use of evidence-based practice, and the facilitation of a spirit of inquiry.

NURS165 Medical Surgical Nursing I Theory 3 Credits
Prerequisites: successful completion of the first semester of the nursing program; Corequisites: NURS166 & NURS167 Assists students to integrate knowledge derived from the bio/psycho/social sciences, humanities, nursing and current literature to achieve safe, competent care of adult patients experiencing common alterations in body systems. Organized by the nursing process to achieve best practice outcomes in an acute care medical/surgical setting. Particular emphasis is placed on the concepts of holistic care, patient education, and discharge planning.

NURS166 Medical Surgical Nursing I Laboratory 1 Credit
Successful completion of the first semester of the nursing program. Corequisites: NURS165 & NURS167 Prepares students to safely perform intermediate nursing skills (therapeutic procedures) that are encountered in the care of hospitalized adult patients with common alterations in body systems. Emphasizes the critical elements of nursing procedures and the scientific rationale for performing the procedures safely.

NURS167 Medical Surgical Nursing I Clinical 2 Credits
Prerequisites: successful completion of the first semester of the nursing program. Corequisites: NURS165 & NURS166 Provides opportunities for students to utilize knowledge from the bio/psycho/social sciences, humanities, nursing and current literature to provide safe, competent care of adult patients experiencing common alterations in body systems. Organized by the nursing process to achieve best practice outcomes in a medical/surgical setting. Particular emphasis is placed on concepts of holistic care, holistic care, patient education.

NURS261 Nursing Care of The Family From Conception Through Adolescence (Theory) 2-4 Credits
Prerequisite: successful completion of the first year of the nursing program. Corequsitie: NURS 262 Focuses on basic concepts of nursing associated with care of the family experiencing pregnancy, birth, and the care of children. Incorporates knowledge of normal patterns of growth and development, health promotion, and disease prevention strategies. Students analyze care of patients with common health disruptions while continuing to develop the competencies of nursing judgement, use of evidenced-based practice, application of principles associated with professional identify, and the nurturing of a spirit of inquiry within the organizing framework of the nursing process.

NURS262 Nursing Care of Family from Conception Through Adolescence (Lab/Clinical) 1-2 Credits
Prerequisite: successful completion of the first year of the nursing program. Corequisite: NURS 261 Focuses on the application of concepts addressed NURS 261. Students provide basic care to families experiencing pregnancy, birth, and the care of children from the neonatal stage through adolescence. Provides active, hands-on learning in the laboratory and clinical setting, under the direct supervision of nursing faculty and competent clinical preceptors,to students caring for maternal, newborn, and pediatric patients. The nursing process, QSEN Safety Standards, and the principles of human flourishing, nursing judgement, professional identity, and the spirit of inquiry, will provide the framework for student activities.

NURS270 Advanced Clinical Nursing I Theory 3 Credits
Prerequisites: successful completion of the first year of the nursing program. ; Corequisites: NURS271 Offers clinical theory organized around the nursing process and its application to patient needs. Requires students to apply the principles of providing a safe care environment, while addressing health promotion and health maintenance needs for persons experiencing complex/acute alterations in health. Students will also apply concepts of community care, case management, health teaching and discharge planning.

NURS271 Advanced Clinical Nursing I Clinical 2 Credits
Prerequisites: successful completion of the first year of the nursing program. Corequisites: NURS270 Requires students to use the nursing process to identify and prioritize health care needs in the provision of care for patients experiencing complex/acute alterations in health. Expands upon previous clinical learning to include the teaching/learning process and administration of intravenous fluids and medications in the acute care setting.

NURS276 Advanced Medical Surgical Nursing II Theory 3 Credits
Prerequisites: successful completion of the third semester of the nursing program. ; Corequisites: NURS277 Assists students to gain knowledge of nursing care for the patient experiencing primary threats to physiological integrity due to complex multisystem disruption in cardiovascular, respiratory, neurological, integumentary, elimination, and digestive systems. Students apply the nursing process to address needs in the psycho/social/cultural and spiritual domains which emerge when there are primary threats to physiological integrity. Related legal, ethical, teaching/learning and communication/documentation issues are also explored.

NURS277 Advanced Medical Surgical Nursing II Clinical 2 Credits
Prerequisites: successful completion of the third semester of the nursing program. ; Corequisites: NURS276 Requires students to apply knowledge and skills to the care of adult patients in a simulated laboratory and acute care environments experiencing needs resulting from complex multisystem disruptions. Students apply the nursing process and utilize information literacy skills to achieve deliberative and competent decision-making that is grounded in evidence based practice to achieve best practice outcomes. Emphasis will be placed on prioritization of care through collaboration with other members of the health care team, patients and their families.

NURS284 Role of the Adn Manager of Care 2 Credits
Prerequisites: successful completion of the third semester of the nursing program. Utilizes a capstone laboratory/clinical to facilitate the role transition from student to graduate nurse. Students integrate knowledge derived from the bio/psycho/social sciences, humanities and nursing to achieve best practice outcomes for multiple patients and their significant others in the acute care setting. Students apply advanced concepts of leadership and management while functioning in the legal, ethical and regulatory structures of the profession of nursing. In the clinical setting students will establish a therapeutic environment to meet the needs of multiple patients and their significant others by demonstrating the ability to meet the nursing program educational outcomes.

NURS285 Special Topics: Nursing 1-6 Credits

NUTRITION (NUTR)

NUTR121 Human Nutrition 3 Credits
Prerequisites: None. Offers a beginning course in the principles of human nutrition including a study of each of the major nutrients and how they relate to good health and a well balanced diet. Includes four laboratory experiences.

NUTR205 Sports Nutrition: Exercise and Performance 3 Credits
Prerequisite: NUTR 121 Introduces the basic elements of sports nutrition. Presents the scientific basis of the roles played by carbohydrate, fat, protein, water, and key vitamins and minerals as they relate to physical exercise. Presents information on diets during training, timing and composition of pre- and post-competition meals, the use of supplement ergogenic aids. Provides practical evidence based information for the athlete and individuals of all ages

wishing to emphasize the role of diet and exercise in promoting a healthy, active lifestyle.

NUTR223 Principles of Nutrition 3 Credits
Prerequisites: BIOL 190 and 190L with a grade of C or better or CHEM 121 with a grade of C or better Studies nutrient functions and basis for nutrient requirements at the cellular level. Three hours lecture.

OCCUPATIONAL SAFETY/HEALTH (OSH)

OSH222 General Industry Safety 1 Credit
Prerequisites: None General safety course for an industrial environment. Provides OSHA regulations, personal safety and understanding of the importance of safe work habits.

PUBLIC HEALTH (PBH)

PBH101 Foundations of Public Health 3 Credits
Introduces the basic tenets of community health, including concepts of health, health promotion and disease prevention, risk factors affecting community health, health information and research, ethics and health programs.

PBH120 Foundations of Personal Health & Wellness 3 Credits
Covers the components and wellness and of lifelong tools that will help enhance wellness. health values, attitudes and behaviors of self and others. Students will be active in design and execution of personal fitness and wellness plans.

RECREATION & PHYSICAL ED (PEX)

PEX105 Scuba 1 Credit
Features PADI Open Water Dive and teaches foundational knowledge and skills needed to dive with a buddy, independent of supervision. Open Water Divers are qualified to obtain air fills, equipment, and services, and may plan, conduct, and log no stop dives in conditions with which they have training and experience.

PEX107 Swimming 1 Credit
Covers water safety, floating, the backstroke, Austrian crawl and other strokes. May be offered at the beginning or intermediate level.

PEX112 Baseball 1 Credit
Focuses on advanced baseball skill development, competition techniques and strategy for highly skilled, first year participants in competitive baseball. May be repeated for up to six credits

PEX117 Golf 1-2 Credits
Cover fundamentals of golf.

PEX122 Raquetball 1-2 Credits
Covers the fundamentals of racquetball.

PEX125 Softball 1 Credit
Focuses on advanced softball skill development, competition techniques and strategy for highly skilled participants in competitive softball. May be repeated for up to six credits.

PEX127 Tennis 2 Credits
Introduces the basic rules, techniques, fundamentals, and strategies concerned with the game of tennis. Intermediate and advanced levels perfect and build upon the skills taught in the beginning level. May be offered at the beginning, intermediate and advanced levels.

PEX130 Backpacking 1 Credit
Covers the fundamentals of backpacking. Safety skills will also be discussed.

PEX136 Snow Boarding 1 Credit
Prerequisites: intermediate snowboarding ability Teaches skidded turn with good speed and control on green and blue terrain. Consists of a combination of on-the-snow classes at an established ski area and classroom instruction at the college. Students will be assigned to small groups based on their present snowboarding ability. Any additional on-snow instruction will be by certified instructors employed by the ski area.

PEX139 Wilderness Skills 1 Credit
Provides basic survival information. May include field trips to allow students hands-on experience in the field.

PEX142 Judo 1-6 Credits
Provides students with the basic elements of the martial arts of Jujitsu and Judo, to enable them to gain greater control of their bodies and their emotions. May be offered at the beginning or intermediate level.

PEX143 Karate 1-2 Credits
Covers the basic history, philosophy and origins of Karate systems. Students are provided with demonstrations of the basic moves and are allowed to practice the moves with feedback. May be offered at the beginning or intermediate level.

PEX148 Tai Chi 1-3 Credits
Familiarizes students with the forms, sequence and movements of Tai Chi. May be offered at the beginning or intermediate level.

PEX151 Bicycling 1-3 Credits
Covers the fundamentals of bicycling.

PEX154 Dance 1 Credit
Explores dance positions, leading and following, and proper usage of rhythm. May be offered at the beginning or intermediate level. May be repeated for up to four credits.

PEX159 Horsemanship 1-2 Credits
Helps students understand the principles of dressage and show jumping and to improve their skills in both sports. may be offered at the beginning or intermediate level.

PEX169 Yoga 1-2 Credits
Covers asana postures with emphasis on alignment and working with modifications for students who have injuries and need to adjust their postures. Breathing, meditation, and chanting incorporated. Presents the benefits, history and different styles and types of yoga.

PEX170 Aerobics 1-4 Credits
Engages students in cardiovascular activity for sustained time periods through a low impact, high intensity format. May be offered at the beginning or intermediate level.

PEX172 Body Contouring & Conditioning 1-3 Credits
Seeks to enhance physical activity to improve overall health and quality of life. Students will learn knowledge of muscle groups, target heart rate, and the potential benefits of regular exercise which includes improved cardiovascular endurance, body composition, flexibility, muscular strength and improved body contour. Students will participate in aerobic activities, calisthenics, and sculpting-isometric exercise, sports, conditioning, and flexibility training.

PEX176 General Physical Fitness 1-2 Credits
Covers general physical fitness.

PEX180 Strength Training 1-2 Credits
Introduces resistance training and proper lifting techniques to strength (weight)training students. Safety rules, proper use of equipment and concepts of lifting will be emphasized.

PEX183 Weight Training 0.5-3 Credits
Introduces students to weight training principles.

PEX184 Conditioning, Intercollegiate Athletics 1 Credit
Prerequisites: consent of instructor Teaches the fundamentals of general and sports specific conditioning. All aspects of physical and psychological development are incorporated in this class. Strength, power, speed, acceleration, muscular hypertrophy and endurance, cardiovascular endurance, motor skills and agility drills are taught and practiced. The class will include general physical preparation sport fitness, plyometrics, agility drills and sports specific conditioning. The students will learn about the principle of year-round conditioning, including conditioning appropriate to

the off-season, preparatory period, pre-competition period and competition period.

PEX193 Intercollegiate Soccer 1-3 Credits
Prerequisites: must be a member of the WNC soccer team Participation on the intercollegiate soccer team. May be repeated for up to 6 credits.

PEX199 Special Topics 1-3 Credits
Offers special topics which vary across semesters. A maximum of six credits may be applied towards a WNC degree.

PHILOSOPHY (PHIL)

PHIL101 Introduction to Philosophy 3 Credits
Prerequisites: ENG 101 recommended Studies basic problems in different areas of philosophy such as ethics, political theory, metaphysics, and epistemology.

PHIL102 Critical Thinking & Reasoning 3 Credits
Covers nonsymbolic introduction to logical thinking in everyday life, law, politics, science, advertising; common fallacies; and the uses of language, including techniques of persuasion.

PHIL114 Introduction to Logic 3 Credits
Introduces symbolic logic. Studies the principles of correct reasoning, using the symbolic techniques of propositional calculus and basic quantifier calculus.

PHIL135 Introduction to Ethics 3 Credits
Provides an introduction to representative classical ethical theories.

PHIL145 Religion in American Life 3 Credits

PHIL200 Judeo-Christian Tradition 3 Credits
Studies the major religious philosophic beliefs found in the Old and New Testaments along with the way these concepts were modified in post-biblical cosmology.

PHIL203 Introduction to Existentialism 3 Credits
Reviews readings from Kierkegaard, Nietzsche, Jaspers, Sarte, Heidegger. An examination of the existentialist concepts: "being" and "nonbeing," "estrangement," "dread," "anxiety" and "freedom."

PHIL204 Introduction to Contemporary Philosophy 3 Credits
Reviews the late 19th century movements as basis for the study of 20th century developments in thought from Nietzsche through existentialism, neopositivism, and American naturalism.

PHIL207 Introduction to Political Philosophy 3 Credits
Provides readings and discussion of theories concerning the nature of society and political structure from classical and contemporary philosophers.

PHIL210 World Religions 3 Credits
Prerequisites: ENG 101 recommended Examines the main moral and religious views of world religions.

PHIL224 Introduction to the Philosophy of Science 3 Credits
Studies philosophical problems and implications of historical and contemporary scientific inquiry, e.g. the nature of laws, theories, explanations, scientific revolutions, values, relations of science and society.

PHIL245 Contemporary Moral Issues 3 Credits
Prerequisite: None. Recommended: ENG 101 Explores topical questions in practical ethics, e.g., war and terrorism, world hunger, abortion, racial discrimination, gender roles, the environment from a multicultural perspective.

PHIL299 Special Topics: Philosophy 1-3 Credits

PHYSICS (PHYS)

PHYS180L Physics for Scientists and Engineers Lab I 1 Credit
Prerequisites: MATH181 ; Corequisites: PHYS180 Explores vectors, rectilinear motion, particle dynamics, work and energy, momentum, rotational mechanics, oscillations, gravitation, fluids, wave properties and sound. Students must co-enroll in both lecture and lab to receive credit.

PHYS181L Physics for Science and Engineers Lab II 1 Credit
Prerequisites: MATH182 & PHYS180 ; Corequisites: PHYS181 Explores electric fields, potential, current, dielectrics, circuits, magnetic fields, electromagnetic oscillations, thermodynamics and kinetic theory of gases. Students must co-enroll in both lecture and lab to receive credit.

PHYS182L Physics for Scientists and Engineers Lab III 1 Credit
Prerequisites: MATH182 & PHYS181; Corequisites: PHYS182 Explores light, optical systems, relativity, wave aspects of particles, quantum mechanics, statistical mechanics, semiconductors, radioactivity, nuclear physics and particles. Students must co-enroll in both lecture and lab to receive credit.

PHYS100 Introductory Physics 3 Credits
Prerequisites: MATH120,MATH126 or higher Introduces students to a broad range of concepts in physics from basic classical mechanics to modern physics. Students will conduct at least four experiments with many demonstrations performed throughout the course.

PHYS151 General Physics I 4 Credits
Prerequisites: MATH126 & MATH127,MATH128 or equivalent Provides a course in physics for students in arts and science, medicine and dentistry, and agriculture. Emphasis is on mechanics, heat, and sound.

PHYS152 General Physics II 4 Credits
Prerequisites: PHYS151 Emphasizes light, electricity, magnetism and nuclear physics.

PHYS180 Physics for Scientists and Engineers I 3 Credits
Prerequisite: MATH 181. Corequisite: PHYS 180L. Explores vectors, rectilinear motion, particle dynamics, work and energy, momentum, rotational mechanics, oscillations, gravitation, fluids, wave properties and sound. Students must co-enroll in both lecture and lab to receive credit.

PHYS181 Physics for Scientists and Engineers II 3 Credits
Prerequisites: MATH 182 AND PHYS 180. Corequisite: PHYS 181L. Explores electric fields, potential, current, dielectrics, circuits, magnetic fields, electromagnetic oscillations, thermodynamics and kinetic theory of gases. Students must co-enroll in both lecture and lab to receive credit.

PHYS182 Physics for Scientists and Engineers III 3 Credits
Prerequisite: PHYS 181. Corequisite: PHYS 182L. Explores light, optical systems, relativity, wave aspects of particles, quantum mechanics, statistical mechanics, semiconductors, radioactivity, nuclear physics and particles. Students must co-enroll in both lecture and lab to receive credit.

PHYS293 Directed Study 1-3 Credits
Prerequisites: PHYS151 or PHYS180 Provides individual study conducted under the direction of a faculty member. May be repeated for up to six credits.

POLITICAL SCIENCE (PSC)

PSC100 Nevada Constitution 1 Credit
Prerequisite: None. Recommended: Completion or corequisite of ENG 101 or eligibility to enroll in ENG 101. Introduces the political history of Nevada through an examination of the Nevada Constitution. Satisfies the Nevada Constitution requirement.

PSC101 Introduction to American Politics 3 Credits
Prerequisite: None. Recommended: Completion or corequisite of ENG 101 or eligibility to enroll in ENG 101. Studies American government and the discipline of political science; surveys participation, pursuit and use of power, constitution formation and contemporary political issues. Satisfies United States and Nevada Constitution requirements.

PSC103 Principles of American Constitutional Government 3 Credits
Studies constitutions of U.S. and Nevada with specific attention to various principles and current problems of government. Satisfies United States and Nevada Constitution requirements.

PSC208 Survey of State & Local Government 3 Credits
Prerequisite: None. Recommend completion or corequisite of ENG 100 or ENG 101 Survey of the organization, working principles and functional processes of state and local governments in the United States, including Nevada. Satisfies the Nevada Constitution requirement. Examines governing institutions such as city councils, school boards and state legislatures whose decisions immediately impact our everyday lives. Specific attention is given to civic engagement, i.e., the different ways that people may participate within our democratic system to change communities for the better. May include: field trips to meetings, guest speakers from local offices since the college is situated in the state's capital.

PSC210 American Public Policy 3 Credits
Prerequisite: None. Recommended prerequisite or corequisite: ENG 101, or eligibility to enroll in ENG 101. Explores an analysis of the interplay of forces involved in policy-making at all levels of American government. Studies the impact of policy on individuals and institutions.

PSC211 Introduction to Comparative Politics 3 Credits
Prerequisites: None. Recommended: Completion or corequisite of ENG 101 or ability to enroll in ENG 101. Provides an analysis of similarities and differences in the governing processes of different societies.

PSC231 Introduction to International Relations 3 Credits
Prerequisite: None. Recommended: Completion or corequisite of ENG 101 or eligibility to enroll in ENG 101. Explores policy making institutions, foreign policies and politics of various nations.

PSYCHOLOGY (PSY)

PSY101 General Psychology 3 Credits
Introduces the field of psychology. Covers major principles and their application to the study of human behavior.

PSY102 Psychology of Personal/Social Adjustment 2-3 Credits
Focuses on understanding and applying psychological principles and theories to personal development and human relationships.

PSY120 The Psychology of Human Performance 3 Credits
Prerequisites: PSY101 or consent of instructor Surveys the psychology of human performance. Explores the psychological, emotional, and strategic dimensions of human performance. Emphasis will be to provide students with a comprehensive background that they can apply to their own performance areas.

PSY130 Human Sexuality 3 Credits
Covers major topics in human sexuality such as gender, sexual anatomy, sexually-transmitted diseases, sexual response and disorders, sexual orientation, sexual coercion, and commercial sex.

PSY210 Introduction to Statistical Methods 3-4 Credits
Prerequisites: PSY101,SOC101 & MATH096 or consent of instructor Develops an understanding of statistical methods and training in the useful presentation and interpretation of behavioral science data, including elementary computer use. Same as SOC 210.

PSY220 Principles of Educational Psychology 3 Credits
Prerequisites: PSY101 or consent of instructor Introduces the application of psychology principles of learning and cognitive development.

PSY230 Intro to Personality Psychology 3 Credits
Introduces students to personality testing and the major approaches to the study of personality, including the influence of heredity, learning, the unconscious, etc.

PSY233 Child Psychology 2-3 Credits
Prerequisites: PSY101 or consent of instructor Explains the growth and development of children from conception through early adolescence.

PSY234 Psychology of Adolescence 2-3 Credits
Prerequisites: PSY101 or consent of instructor Examines psychological development during adolescence with emphasis on special problems in American society: drug abuse, pregnancy, and familial problems.

PSY240 Introduction to Research Methods 3 Credits
Prerequisites: PSY101 or consent of instructor Introduces how hypotheses are objectively tested in the social sciences, including research design, data collection, and interpretation of results.

PSY241 Introduction to Abnormal Psychology 3 Credits
Prerequisites: PSY101 or consent of instructor Covers causes, symptoms, and treatments of major psychological disorders, including anxiety, dissociative, mood, somatoform, eating, schizophrenia and substance-related disorders.

PSY257 Introduction to Positive Psychology 3 Credits
Prerequisites: PSY101. Recommended: COM102 and SOC 101. Explores the scope of this new branch of Psychology. Key topics include: the history of Positive Psychology, positivity, learned optimism, purpose, handling adversity and resilience, happiness and well-being, personality development and integration, and positive relationships.

PSY261 Introduction to Social Psychology 3 Credits
Prerequisites: PSY101,SOC101 or consent of instructor Examines how the presence of others influences thoughts and behavior, including research on close relationships, persuasion, stereotyping, aggression, and group dynamics.

PSY275 Undergraduate Research 3 Credits
Prerequisites: PSY101 & PSY210&PSY240 Requires independent or collaborative research.

PSY299 Special Topics 1-3 Credits
Explores special topics which vary across semesters. A maximum of three credits may be applied towards a WNC degree.

REAL ESTATE (RE)

RE101 Real Estate Principles 4 Credits
Prepares students for careers in the real estate profession. Includes law of agency, listing agreements, encumbrances, legal descriptions, taxes, contracts and escrow. This course, along with RE 103, satisfies requirements of the Real Estate Division and Commission for taking the salesperson exam.

RE103 Real Estate Law And Practice 4 Credits
Prerequisites: RE101 Provides in-depth study of the real estate profession including Nevada real estate laws. Covers rules and regulations pertaining to NRS 645 and NRS 119, along with listing procedures, contracts, closing statements and office procedures.

READING (READ)

READ95 Reading and Improvement 3 Credits
Improves fundamental reading skills, including word-attack skills, vocabulary development, reading comprehension, fluency, and interpretation.

READ135 College Reading Strategies 3 Credits
Prerequisites: READ093 with a C or better, reading placement exam, or consent of instructor Helps the average reader improve reading efficiency through practice with advanced comprehension skills. Reading rate is thereby improved indirectly. Students with heavy academic or on-the-job reading will benefit. Attention is also given to expanding reading vocabularies.

SOCIOLOGY (SOC)

SOC101 Principles of Sociology 3 Credits
Explains sociological principles underlying the development, structure, and function of culture, society, human groups, personality formation and social change.

SOC102 Contemporary Social Issues 3 Credits
Prerequisites: SOC101 or consent of instructor Acquaints students with selected social problems, their causes and possible solutions.

SPANISH (SPAN)

SPAN101 Spanish, Conversational I 3 Credits
Emphasizes spoken communication. Listening skills, reading and writing skills will be explored. A vocabulary of Spanish-English words can be developed to suit student needs. As students progress through this four-semester sequence they will build increasing fluency in the speaking, reading and writing of Spanish.

SPAN102 Conversational Spanish II 3 Credits
Prerequisites: SPAN101B or consent of instructor Offers a second semester of Conversational Spanish designed to continue and improve the skills learned in the first semester.

SPAN103 Conversational Spanish III 3 Credits
Prerequisites: SPAN102B or consent of instructor Further develops skills learned in previous semesters.

SPAN104 Conversational Spanish IV 3 Credits
Prerequisites: SPAN103 Continues the development of language skills through practice in listening, speaking, reading and writing; and structural analysis. Includes an introduction to Spanish culture.

SPAN111 First Year Spanish I 3 Credits
Develops language skills through practice in listening, speaking, reading, writing and structural analysis. Includes an introduction to Spanish culture.

SPAN112 First Year Spanish II 3 Credits
Prerequisites: SPAN111 or equivalent or consent of instructor Develops language skills through practice in listening, speaking, reading and writing; and structural analysis.

SPAN211 Second Year Spanish I 3 Credits
Prerequisites: SPAN112 or equivalent Considers structural review, conversation and writing, and readings in modern literature.

SPAN212 Second Year Spanish II 3 Credits
Prerequisites: SPAN211 Continues structural review, conversation and writing, and readings in modern literature.

SPAN226 Spanish for Heritage Speakers I 3 Credits
Prerequisite: None; students should have some bilingual communications skills. Designed for native Spanish speaking students who want to improve their literacy in the language. Students will study and practice basic Spanish grammar for improving and developing written and oral communications and reading skills while exploring some of the most interesting and important aspects of their own history and culture.

SPAN227 Spanish for Heritage Speakers II 3 Credits
Prerequisite: SPAN 226 or instructor consent; students should have some bilingual communications skills; Continuation of SPAN 226, designed for native Spanish speaking students who want to improve their literacy in the language. Students will study and practice Spanish grammar for improving and developing written and oral communication and reading skills while exploring some of the most interesting and important aspects of their own history and culture.

STATISTICS (STAT)

STAT52 Learning Support for STAT 152 1-3 Credits
Prerequisite: None. Corequisite: Enrollment in designated section of STAT 152. Provides foundational material to support students in STAT 152, Introduction to Statistics.

STAT152 Introduction to Statistics 3 Credits
Prerequisites: Success in intermediate algebra, algebra II, MATH 96 or similar course is recommended as preparation for this course. Students should meet with a Counselor to determine readiness based on placement or equivalent exam, high school coursework, or other factors. Introduces statistics, probability models, statistical estimation and hypothesis testing, linear regression analysis, and special topics.

SURVEYING (SUR)

SUR119 Construction Surveying 2-4 Credits
Prerequisites: CONS108 or consent of instructor Presents care and use of surveying equipment. Profile elevation and closed traverse projects will provide hands-on experience. Construction staking will be explained in detail.

SUR161 Elementary Surveying 4 Credits
Prerequisites: MATH127 or higher Offers a beginning course designed to introduce students to modern techniques in land surveying.

SOCIAL WORK (SW)

SW101 Introduction to Social Work 3 Credits
Introduces the profession of social work within a historical context. Emphasis on values, human diversity, analysis of social problem solving and fields of practice.

SW230 Crisis Intervention 3 Credits
Analyzes types of crisis theory, effects of crisis on the individual, family and community. Looks at methods and resources for crisis intervention.

SW250 Social Welfare History and Policy 3 Credits
Explores the historical development of the social work profession and current policies governing the social service delivery system within the United States. Presents social policy as a social construction influenced by a range of ideologies and interests. Special attention is paid to social welfare policy and programs relevant to the practice of social work, including poverty, child and family well-being, mental and physical disability, health, and racial, ethnic, and sexual minorities. Includes a focus on the role of policy in creating, maintaining or eradicating social inequities.

SW310 Structural Oppression 3 Credits
Prerequisite: SW 101 and SW 250 First course in a two course sequence that promotes a multidimensional understanding of human functioning and behavior across systems and the life course. Specifically examines human behavior manifested in larger systems as well as the reciprocal relationship between individual functioning and social institutions. Orients students to social work perspectives that view human behavior as being influenced and impinged upon by environmental forces. Advances student's ability to critically examine the role of power, privilege and oppression in shaping life experiences.

SW311 Theoretical Perspectives on Human Behavior 3 Credits
Prerequisites: SW 310 Second course in two-course sequence that promotes a multidimensional understanding of human functioning and behavior across systems and the life course. Specifically examines human behavior and functioning among individuals and families. Emphasizes an evidence-informed approach to assessing human functioning. Advances student ability to critically apply a range of theories and research to better understand and assess human behavior and development.

SW321 Basics of Professional Communication 3 Credits
Prerequisite: SW 101 and 250. Focuses on the development of basis communication and observational skills needed for subsequent social work methods courses. Addresses communications topics including: active listening, questioning, empathetic responding, paraphrasing, summarizing, persuasive writing, and nov-verbal communication. Emphasizes developing observation and communication skills that capture events in ways that are descriptive, accurate, and unbiased. Stresses the importance of nonjudgmental and unbiased communication and rapport. Examines the roles of power differentials, gender, culture, class, context, and ethnicity/race on professional communication.

THEATER ARTS (THTR)

THTR100 Introduction to Theater 3 Credits
Studies plays of the classic and modern periods, of genres such as tragedy, comedy, farce, and melodrama, and of the art and craft of theatre.

THTR105 Introduction to Acting I 3 Credits
Examines fundamentals of stage acting with special emphasis on improvisation. Introduces the principles that govern the performing environment. Speech and vocal skills as well as theatrical movement will be

stressed. Emphasis is on the preparation aspect of acting rather than on performance.

THTR116 Musical Theatre Dance 1 Credit
Introduces beginning techniques of tap dance.

THTR121 Make-Up for the Actor 1-3 Credits
Acquaints the student with the beginning principles of makeup and progresses to character makeup.

THTR176 Musical Theatre Workshop I 1-8 Credits
Features performance of musical theatre productions. May be repeated to a maximum of eight credits. Same as MUS 176.

THTR180 Cinema as Art & Communication 3 Credits
Surveys cinema in its diverse forms. Course uses films to show historical and stylistic influences on the aesthetic values and social implications of cinema.

THTR198 Special Topics in Theater 1-6 Credits
Focuses in depth on a special topic in theater.

THTR204 Theatre Technology I 3 Credits
Introduces the backstage world of the theatre by the study of lighting and sound systems and of technical stage riggings. Students will gain practical experience by serving as the crew for a college theatrical production.

THTR205 Introduction to Acting II 3 Credits
Continues acting principles presented in Introduction to Acting I with an emphasis on the classics.

THTR209 Theatre Practicum 1-6 Credits
Offers practical experience in stage productions.

THTR219 Projects in Technical Theater 1-3 Credits
Offers an in-depth study of some technical aspect of theater. Through practical application students can explore lighting, set art, set construction, sound, set design or rigging.

THTR240 Acting for the Camera 3 Credits
Introduces the concept and practice of performing on camera and working with directors. Performance and discussion of scenes from television, film, and commercials. Discussion of the business of the entertainment industry.

THTR247 Beginning Improvisation 3 Credits
Explores basic theatrical improvisation for general students. Focuses on spontaneity, flexibility, and structure. Variety of theatrical styles and improvisational techniques explored.

THTR258 Theatre Experience and Travel 1-2 Credits
Field study class in which students travel to an arranged destination for the purpose of play viewing, play study and possible workshop attendance.

THTR276 Musical Theatre Workshop II 2-3 Credits
Prerequisites: MUS176,THTR176 Continues skills learned in THTR 176 or MUS 176. Offers a workshop in the techniques of musical theatre. May be repeated to a maximum of nine credits. Same as MUS 176.

WELDING (WELD)

WELD211 Welding I 3 Credits
Introduces welding which includes welding safety, environmental awareness, oxy-acetylene welding, cutting, and brazing as well as shielded metal-arc.

WELD212 Welding I Practice 2 Credits
Prerequisites: WELD211 Develops the student's manual skills necessary to produce high quality gas welds and flame cuts. The student learns to set up the equipment for all phases of oxy-acetylene welding and cutting. The shielded metal-arc welding section develops entry level skills for welders. This course specifically develops basic shielded metal arc welding skills such as striking the arc, maintaining proper arc length, adjusting equipment and manipulating the electrode.

WELD221 Welding II 3 Credits
Prerequisites: WELD211 or consent of instructor Continues MTL 212 with emphasis on developing welding skills for SMAW, GMAW, GTAW production in overhead, flat, horizontal, and vertical positions.

WELD222 Welding II Practice 2 Credits
Prerequisites: WELD221 Continues MTL 212 with emphasis on developing welding skills for SMAW, GMAW, and GTAW production in overhead, flat, horizontal, and vertical positions.

WELD224 Welding Projects 1-6 Credits
Prerequisites: Consent of instructor Offers welding student additional supervised lab hours. Students will perfect their skills through an approved project or work toward an A.W.S. Code preparation. May be repeated to a maximum of six units.

WELD231 Welding III 3 Credits
Prerequisites: WELD221 Includes theory and practice in gas metal-arc welding and gas tungsten-arc welding.

WELD232 Welding III Practice 2 Credits
Prerequisites: WELD222B Focuses on GMAW, GTAW, and FCAW which will train the student to perform production and certification performance welding on ferrous and non-ferrous metals.

WELD241 Welding IV 3 Credits
Prerequisites: WELD231B Covers shielded metal-arc welding of pipe, flux core arc welding of pipe and introduction to A.P.I., A.S.M.E., and A.W.S. code certification. Welding of pipe provides training to develop welding skills necessary to produce high quality multipass welds on 6-inch schedule, 80 mild steel pipe in the 6 G positions, using advanced welding processes.

WELD242 Welding IV Practice 2 Credits
Prerequisites: WELD241B & WELD232B Introduces fundamental pipe welding techniques and develops basic skills for the service and transmission fields in the shielded metal-arc section. Trains welders for work in either the pressure pipe industry or transmission pipeline work using the micro-wire weld.

WELD250 Welding Certification Preparation 1-12 Credits
Prerequisites: consent of instructor Introduces the student to the many certifications available by meeting the standards of the American Welding Society codes. Also, it includes instruction on code certification required by the American Petroleum Institute and the American Society of Mechanical Engineers. May be repeated for up to 12 units.

WELD290 Internship in Welding 1-8 Credits
Prerequisites: consent of instructor Provides the student with on-the-job, supervised and educationally directed work experience.

Western Nevada College

2023-2024 College Catalog

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