

COURSE DESCRIPTIONS BY COURSE DISCIPLINE PREFIX

PDF COURSE LIST

ACA ACADEMIC RELATED

ACA-090	Student Success Strategies	3 (3-0)	Fall Spring Summer
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Prerequisites: None

Corequisites: None

This course is intended to provide students with skills and strategies to promote success in college, career, and life. Topics include the College's physical, academic, and social environment, promotes personal development, and cultivates learning strategies essential for student success. Upon completion, students should be able to manage their learning experiences to meet educational and life goals.(2014 FA) ACA-090 is required if a student placed into both ENG-002 and MAT-003

ACA-115	Success & Study Skills	1 (0-2)	Fall Spring Summer
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Prerequisites: None

Corequisites: None

This course provides an orientation to the campus resources and academic skills necessary to achieve educational objectives. Emphasis is placed on an exploration of facilities and services, study skills, library skills, self-assessment, wellness, goal-setting, and critical thinking. Upon completion, students should be able to manage their learning experiences to successfully meet educational goals.(1997 SU)

ACA-122	College Transfer Success	1 (0-2)	Fall Spring Summer
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Prerequisites: None

Corequisites: None

This course provides information and strategies necessary to develop clear academic and professional goals beyond the community college experience. Topics include the CAA, college policies and culture, career exploration, gathering information on senior institutions, strategic planning, critical thinking, and communications skills for a successful academic transition. Upon completion, students should be able to develop an academic plan to transition successfully to senior institutions.(2021 SU) This course has been approved to satisfy the following requirement(s):

- Premajor and/or elective course for A.A., A.A. Teacher Preparation, A.E., A.F.A., A.G.E.-Nursing, A.S., and A.S. Teacher Preparation.

ACC-115	College Accounting	4 (3-2)	AND
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This course introduces basic accounting principles for a business. Topics include the complete accounting cycle with end-of-period statements, bank reconciliation, payrolls, and petty cash. Upon completion, students should be able to demonstrate an understanding of accounting principles and apply those skills to a business organization.(2003 FA)

This course introduces business decision-making using accounting information systems. Emphasis is placed on analyzing, summarizing, reporting, and interpreting financial information. Upon completion, students should be able to prepare financial statements, understand the role of financial information in decision-making and address ethical considerations.(2003FA) This course has been approved to satisfy the following requirement(s):

- This course includes a greater emphasis on managerial and cost accounting skills. Emphasis is placed on managerial accounting concepts for external and internal analysis, reporting and decision-making. Upon completion, students should be able to analyze and interpret transactions relating to managerial concepts including product-costing systems.(2003 FA) This course has been approved to satisfy the following requirement(s):

- This course provides an overview of federal income taxes for individuals, partnerships, and corporations. Topics include tax law, electronic research and methodologies and the use technology for the preparation of individual and business tax returns. Upon completion, students should be able to analyze basic tax scenarios, research applicable tax laws, and complete federal tax returns for individuals, partnerships, and corporations.(2003 FA)

COURSE DESCRIPTIONS

ACC-140	Payroll Accounting	2 (1-3)	Spring
Prerequisites:	ACC-115 ^S or ACC-120 ^S		
Corequisites:	None		
This course covers federal and state laws pertaining to wages, payroll taxes, payroll tax forms, and journal and general ledger transactions. Emphasis is placed on computing wages calculating social security, income, and unemployment taxes preparing appropriate payroll tax forms and journalizing/posting transactions. Upon completion, students should be able to analyze data, make appropriate computations, complete forms, and prepare accounting entries using appropriate technology.(2018 FA)			
ACC-149	Intro to ACC Spreadsheets	2 (1-3)	Fall Summer
Prerequisites:	ACC-115 ^S or ACC-120 ^S		
Corequisites:	None		
This course provides a working knowledge of computer spreadsheets and their use in accounting. Topics include pre-programmed problems, model-building problems, beginning-level macros, graphics, and what-if analysis enhancements of template problems. Upon completion, students should be able to use a computer spreadsheet to complete many of the tasks required in accounting.(2018 FA)			
ACC-150	Accounting Software Appl	2 (1-3)	Spring
Prerequisites:	ACC-115 ^S or ACC-120 ^S		
Corequisites:	None		
This course introduces microcomputer applications related to accounting systems. Topics include general ledger, accounts receivable, accounts payable, inventory, payroll, and correcting, adjusting, and closing entries. Upon completion, students should be able to use a computer accounting package to accurately solve accounting problems.(2018 FA)			
ACC-151	Acct Spreadsheet Appl	2 (1-3)	Spring
Prerequisites:	ACC-149 ^S		
Corequisites:	None		
This course is designed to facilitate the use of spreadsheet technology as applied to accounting principles. Emphasis is placed on using spreadsheet software as a problem-solving and decision-making tool. Upon completion, students should be able to demonstrate an understanding of the principles involved and display an analytical problem-solving ability for the topics covered.(2018 FA)			
ACC-180	Practices in Bookkeeping	3 (3-0)	Spring
Prerequisites:	ACC-120 ^S		
Corequisites:	None		
This course provides advanced instruction in bookkeeping and record-keeping functions. Emphasis is placed on mastering adjusting entries, correction of errors, depreciation, payroll, and inventory. Upon completion, students should be able to conduct all key bookkeeping functions for small businesses.(2003 FA)			

ACC-220 Intermediate Accounting I 4 (3-2) Fall
Prerequisites: ACC-120^S, ACC-121^L
Corequisites: None

This course is a continuation of the study of accounting principles with in-depth coverage of theoretical concepts and financial statements. Topics include generally accepted accounting principles and extensive analysis of balance sheet components. Upon completion, students should be able to demonstrate competence in the conceptual framework underlying financial accounting, including the application of financial standards.(2006 SP)

AER AEROSPACE AND FLIGHT TRA
AER-110 Air Navigation 3 (2-2) Fall
Prerequisites: None

Corequisites: None

This course covers the basic elements of air navigation, fundamentals of pilotage and dead reckoning, and the use of a plotter, computer, and aerial charts. Topics include pilotage, dead reckoning, radio navigation, LORAN, Global Positioning Systems, and the use of FAA publications. Upon completion, students should be able to interpret aeronautical charts and apply navigational principles.(1997 SU)

AER-111 Aviation Meteorology 3 (3-0) Fall
Prerequisites: None

Corequisites: None

This course covers the atmosphere, interpretation and measurement of meteorological elements, and the effects of such on aircraft operations and performance. Topics include heat exchanges in the atmosphere temperature, pressure, stability, clouds, air masses, fronts, and thunderstorms and the use and interpretation of weather data. Upon completion, students should be able to analyze weather data for flight planning and safe flying.(1997 SU)

AER-112 Aviation Laws and FARs 2 (2-0) Spring
Prerequisites: None

Corequisites: None

This course provides an in-depth study of the state, federal, and international regulations forming the structure of aviation law. Emphasis is placed on Federal Aviation Regulations Parts 61, 91, and 135 with additional emphasis on legal issues in aviation law. Upon completion, students should be able to apply legal principles and interpret federal air regulations.(1997 SU)

**AER-113 History of Aviation 2 (2-0) Fall
Spring**
Prerequisites: None

Corequisites: None

This course provides a historical survey of the efforts of manned-flight. Topics include the development of aircraft, milestones in aviation, noted pioneers, and the socioeconomic impact of flight upon modern civilization. Upon completion, students should be able to demonstrate an understanding of the advancements that aviation has accrued for society and contemporary changes in aviation.(1997 SU)

COURSE DESCRIPTIONS

AER-114	Aviation Management	3 (3-0)	Spring
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Prerequisites: None

Corequisites: None

This course covers operation of a flight department on a cost-effective basis and analysis of profit and loss statements. Topics include flight operations costs, aircraft acquisition analysis and cost comparisons, costs versus revenue, and break-even points. Upon completion, students should be able to calculate cost of flight operations and apply monthly and annual budget analysis.(1997 SU)

AER-115	Flight Simulator	2 (1-3)	AND
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Prerequisites: None

Corequisites: None

This course covers instrument instruction and training in a FAA-approved flight simulator. Emphasis is placed on approach and navigation procedures including holding and missed approaches. Upon completion, students should be able to plan and execute an IFR flight and smoothly transition to instrument training in the aircraft.(2023 FA)

AER-116	Private Pilot Flight Simulato	2 (1-2)	AND
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Prerequisites: None

Corequisites: None

This course provides classroom and hands-on simulator training needed to support FAA Private Pilot Certificate qualification requirements. Topics include introduction to checklists, flight procedures, radio procedures, ground and flight maneuvers that include take-offs, climbs, level flight, turns, glides, stalls, slow flight, descents, slips, landings, emergency procedures, cross country planning, and navigation. Upon completion, students should be able to log their simulator training time, transition to Private Pilot training in an actual aircraft, and successfully meet all FAA requirements for Private Pilot Certification.(2023 FA)

AER-119	Aircraft Structures	2 (2-0)	AND
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Prerequisites: None

Corequisites: None

This course introduces aircraft airframes and associated appliances. Emphasis is placed on strength of materials, aircraft standards, type certificate data sheets, basic airframe construction, and weight and balance fundamentals. Upon completion, students should be able to analyze strength of materials data and apply their analysis to semi-monocoque, full-cantilever, and truss-type airframes. (1997 SU)

AER-150	Private Pilot Flt Theory	3 (2-2)	Fall Spring
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Prerequisites: None

Corequisites: None

This course covers the aeronautical knowledge required to meet the Federal Aviation Administration regulations for private pilot certification. Topics include the principles of flight, the flight environment, basic aircraft systems and performance, basic meteorology and weather data interpretation, and FAA regulations. Upon completion, students should be able to demonstrate the competencies required for the FAA written examination for a private pilot certificate.(1997 SU)

AER-151	Flight-Private Pilot	1 (0-3)	Fall Spring
Prerequisites: None Corequisites: None This course provides the hands-on training needed to qualify for a Federal Aviation Administration private pilot certificate. Topics include flight maneuvers (ground procedures, take-offs, climbs, level flight, turns, glides, stalls, slow flight, descents, slips, landings, emergency procedures) and cross-country planning and navigation. Upon completion, students should be able to demonstrate the competencies required for the flight test practical exam for the private pilot certificate.(1997 SU) Instructional flight hours are accomplished through partnerships with the local flight schools.			
AER-160	Instrument Flight Theory	3 (2-2)	Fall Spring
Prerequisites: None Corequisites: None This course covers the required aeronautical knowledge of the Federal Aviation Administration Regulation Instrument Ground School. Topics include a study of instruments, systems, instrument flight charts, instrument flight planning, approach procedures, and the IFR regulations. Upon completion, students should be able to demonstrate the competencies required to complete the FAA written examination for an instrument rating.(1997 SU)			
AER-161	Flight-Instrument Pilot	2 (0-6)	Fall Spring
Prerequisites: AER-151 ^S Corequisites: None This course covers instruction and training in instrument flight planning including IFR navigation, VOR, ILS, ADF, and compliance with ATC procedures. Emphasis is placed on approach and navigation procedures, including holding and missed approaches, and development of skill in executing en route and approach procedures. Upon completion, students should be able to plan and execute an IFR flight and demonstrate competencies required for the FAA instrument pilot flight exam.(1997 SU) Instructional flight hours are accomplished through partnerships with the local flight schools.			
AER-170	Commercial Flight Theory	3 (3-0)	Fall Spring
Prerequisites: AER-160 ^L Corequisites: None This course covers advanced aircraft control, cross-country operations, and other topics required for the FAA commercial pilot written exam. Emphasis is placed on the principles of aircraft performance and operation, take-off performance, cruise performance, descent and landing performance, and weight and balance computations. Upon completion, students should be able to demonstrate commercial pilot skills and competence in the materials required for the FAA written commercial pilot examination.(1997 SU)			

COURSE DESCRIPTIONS

AER-171	Flight-Commercial Pilot	3 (0-6)	Fall Spring
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Prerequisites: AER-151^S

Corequisites: None

This course provides the hands-on training needed to qualify for a Federal Aviation Administration commercial pilot certificate. Topics include flight instruction in advanced precision maneuvers, maximum performance take-off and landings, emergency procedures, operation of complex aircraft, aircraft performance, and range and fuel planning. Upon completion, students should be able to demonstrate competence in the areas of the flight test practical exam for the commercial pilot certificate.(2017 FA) Instructional flight hours are accomplished through partnerships with the local flight schools.

AER-210	Flight Dynamics	3 (3-0)	Spring
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Prerequisites: None

Corequisites: None

This course covers basic and advanced principles of aerodynamic phenomena and fluid flow. Topics include airflow phenomena lift/weight/thrust/drag aircraft configuration characteristics, stability, and control subsonic, transonic, and supersonic flight critical Mach numbers and the V-g Diagram. Upon completion, students should be able to explain the elements of applied aerodynamics and aeronautical engineering which relate directly to the problems of flight operations.(1997 SU)

AER-211	Air Traffic Control	2 (2-0)	Fall
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Prerequisites: None

Corequisites: None

This course provides a detailed analysis of all aspects of air traffic control. Emphasis is placed on an in-depth analysis of air traffic control, including utilization of the air traffic environment based on the pilot's and controller's perspective. Upon completion, students should be able to operate an aircraft within the national airspace system under FAA air traffic control.(1997 SU)

AER-212	Air Transport Pilot	3 (3-0)	AND
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Prerequisites: AER-160^S, AER-170^S

Corequisites: None

This course provides advanced study for the professional pilot. Topics include an in-depth study of B-727/737 weight and balance, high altitude weather, Part 121 FARs, and performance considerations of large aircraft. Upon completion, students should be able to calculate weight and balance of large aircraft, determine performance data, and apply high altitude weather principles.(1997 SU)

AER-213	Avionics	2 (2-0)	AND
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Prerequisites: None

Corequisites: None

This course covers standard navigational and communications equipment and theory. Emphasis is placed on aviation radio spectrum, VHF omnirange, ILS, ADF, transponders, weather radar, flight directors, and autopilots. Upon completion, students should be able to utilize VOR, ADF, ILS, GPS, flight directors, HSI's, and autopilots in the flight environment.(1997 SU)

AER-215 Flight Safety 3 (3-0) Spring**Prerequisites:** None**Corequisites:** None

This course covers the basic procedures and practices of aircraft accident prevention, accident investigation, and reporting. Topics include a comprehensive review of federal regulations pertinent to aviation safety and analyses of actual aviation accident cases and their causes. Upon completion, students should be able to demonstrate an understanding and respect for specific personal factors such as attitude, motivation, and skill related to flight safety.(1997 SU)

AER-216 Engines & Systems 3 (2-2) Fall**Prerequisites:** None**Corequisites:** None

This course introduces piston and turbine aircraft engines and associated systems. Topics include aircraft hydraulic, pneumatic, electrical, air conditioning, and pressurization systems along with the theory of engine operations, including power and thrust computations. Upon completion, students should be able to apply principles of engine and systems operation.(1997 SU)

AER-217 Air Transportation 3 (3-0) Spring**Prerequisites:** None**Corequisites:** None

This course covers the development and present status of the air transportation system. Topics include federal legislation, characteristics and classification of air carriers, development of the air traffic control system, and the organization and function of the FAA. Upon completion, students should be able to relate the knowledge acquired to career development.(1997 SU)

AER-218 Human Factors in Aviation 2 (2-0) Fall**Prerequisites:** None**Corequisites:** None

This course analyzes interpersonal relationships in the cockpit and related psychological factors that affect pilot performance and efficiency during flight operations. Topics include cockpit management, judgment, aircraft and flight crew coordination and control, physiological factors, responsibility, and decision-making capabilities. Upon completion, students should be able to apply work-proven routines to stress management, crew responsibility, and the team concept in the cockpit.(1997 SU)

AER-220 Airport Management 2 (2-0) AND**Prerequisites:** None**Corequisites:** None

This course examines the major functions of airport management and the concepts underlying airport planning and construction. Topics include forecasting volumes and airport size and design, including master planning, location requirements, site selection, runway configuration, zoning laws, and other considerations. Upon completion, students should be able to demonstrate basic airport management skills including an understanding of the socioeconomic effect of airports on the community.(1997 SU)

COURSE DESCRIPTIONS

AER-280 Instructor Pilot Flt Theory 3 (3-0) Spring

Prerequisites: AER-170^S

Corequisites: None

This course covers flight instruction and the skills and knowledge necessary to work effectively as a flight instructor. Topics include fundamentals of instruction, lesson planning, instructor regulations and endorsements, and related aeronautical knowledge. Upon completion, students should be able to demonstrate competence necessary for the Federal Aviation Administration Fundamentals of Instructing Test and the appropriate instructor written examination.(1997 SU)

AER-281 Flight-CFI 1 (0-3) AND

Prerequisites: AER-171^S

Corequisites: None

This course provides experience in preparation for the flight instructor practical test. Emphasis is placed on the ability to transition to right seat flight while teaching performance maneuvers including operation of a complex aircraft. Upon completion, students should be able to demonstrate competence in right seat operation and CFI maneuvers as specified in the FAA Practical Test Standards. (1997 SU) Instructional flight hours are accomplished through partnerships with the local flight schools.

AER-285 Flight-Multi-Engine 1 (0-3) AND

Prerequisites: AER-171^S

Corequisites: None

This course provides the flight training required to obtain a multi-engine rating. Topics include multi-engine safety procedures, single-engine operations and performance, Vmc, instrument approaches (single- and multi-engine), and emergency procedures. Upon completion, students should be able to demonstrate the competencies required for the flight test practical examination for a multi-engine rating.(1997 SU) Instructional flight hours are accomplished through partnerships with the local flight schools.

ANT ANTHROPOLOGY ---

ANT-210 General Anthropology 3 (3-0) AND

Prerequisites: ENG-002^L or BSP-4002^L

Corequisites: None

This course introduces the physical, archaeological, linguistic, and ethnological fields of anthropology. Topics include human origins, genetic variations, archaeology, linguistics, primatology, and contemporary cultures. Upon completion, students should be able to demonstrate an understanding of the four major fields of anthropology.(1997 SU) This course has been approved to satisfy the following requirement(s):

- Social/Behavioral Science Gen. Ed. course for A.A., A.A. Teacher Preparation and A.S.
- Social/Behavioral Science Gen. Ed. course for A.A.S. and A.G.E.

ANT-220 Cultural Anthropology 3 (3-0) AND**Prerequisites:** ENG-002^L or BSP-4002^L**Corequisites:** None

This course introduces the nature of human culture. Emphasis is placed on cultural theory, methods of fieldwork, and cross-cultural comparisons in the areas of ethnology, language, and the cultural past. Upon completion, students should be able to demonstrate an understanding of basic cultural processes and how cultural data are collected and analyzed.(1997 SU) This course has been approved to satisfy the following requirement(s):

- Social/Behavioral Science Gen. Ed. course for A.A., A.A. Teacher Preparation and A.S.
- Social/Behavioral Science Gen. Ed. course for A.A.S. and A.G.E.

ANT-221 Comparative Cultures 3 (3-0) AND**Prerequisites:** ENG-002^L or BSP-4002^L**Corequisites:** None

This course provides an ethnographic survey of societies around the world covering their distinctive cultural characteristics and how these relate to cultural change. Emphasis is placed on the similarities and differences in social institutions such as family, economics, politics, education, and religion. Upon completion, students should be able to demonstrate knowledge of a variety of cultural adaptive strategies.(1997 SU) This course has been approved to satisfy the following requirement(s):

- Social/Behavioral Science Gen. Ed. course for A.A., A.A. Teacher Preparation and A.S.
- Social/Behavioral Science Gen. Ed. course for A.A.S. and A.G.E.

ANT-240 Archaeology 3 (3-0) AND**Prerequisites:** ENG-002^L or BSP-4002^L**Corequisites:** None

This course introduces the scientific study of the unwritten record of the human past. Emphasis is placed on the process of human cultural evolution as revealed through archaeological methods of excavation and interpretation. Upon completion, students should be able to demonstrate an understanding of how archaeologists reconstruct the past and describe the variety of past human cultures.(1997 SU) This course has been approved to satisfy the following requirement(s):

- Social/Behavioral Science Gen. Ed. course for A.A., A.A. Teacher Preparation and A.S.
- Social/Behavioral Science Gen. Ed. course for A.A.S. and A.G.E.

ARC ARCHITECTURE

ARC-111 Intro to Arch Technology 3 (1-6) Fall**Prerequisites:** None**Corequisites:** None

This course introduces basic architectural drafting techniques, lettering, use of architectural and engineer scales, and sketching. Topics include orthographic, axonometric, and oblique drawing techniques using architectural plans, elevations, sections, and details reprographic techniques and other related topics. Upon completion, students should be able to prepare and print scaled drawings within minimum architectural standards.(1997 SU)

COURSE DESCRIPTIONS

ARC-112	Constr Matls & Methods	4 (3-2)	Fall
Prerequisites:	None		
Corequisites:	ARC-111 ^L		
This course introduces construction materials and methodologies. Topics include construction terminology, traditional and alternative materials and their properties, manufacturing processes, construction techniques, and other related topics. Upon completion, students should be able to detail construction assemblies and identify construction materials and properties.(2013 FA)			
ARC-114	Architectural CAD	2 (1-3)	Spring
Prerequisites:	None		
Corequisites:	None		
This course introduces basic architectural CAD techniques. Topics include basic commands and system hardware and software. Upon completion, students should be able to prepare and plot architectural drawings to scale within accepted architectural standards.(1998 FA)			
ARC-211	Light Constr Technology	3 (1-6)	Fall
Prerequisites:	ARC-111 ^S		
Corequisites:	ARC-112 ^S		
This course covers working drawings for light construction. Topics include plans, elevations, sections, and details; schedules; and other related topics. Upon completion, students should be able to prepare a set of working drawings which are within accepted architectural standards(1997SU)			
ARC-213	Design Project	4 (2-6)	Spring
Prerequisites:	ARC-111 ^S , ARC-112 ^S , ARC-114 ^S		
Corequisites:	None		
This course provides the opportunity to design and prepare a set of contract documents within an architectural setting. Topics include schematic design, design development, construction documents, and other related topics. Upon completion, students should be able to prepare a set of commercial contract documents.(1998 FA)			
ARC-230	Environmental Systems	4 (3-3)	Spring
Prerequisites:	ARC-111 ^S , MAT-121 ^S or MAT-171 ^S		
Corequisites:	None		
This course introduces plumbing, mechanical (HVAC), and electrical systems for the architectural environment. Topics include basic plumbing, mechanical, and electrical systems for residential and/or commercial buildings with an introduction to selected code requirements. Upon completion, students should be able to develop schematic drawings for plumbing, mechanical, and electrical systems and perform related calculations.(2014 FA)			

ART ART

ART-111	Art Appreciation	3 (3-0)	Fall Spring Summer
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Prerequisites: ENG-002^L or BSP-4002^L

Corequisites: None

This course introduces the origins and historical development of art. Emphasis is placed on the relationship of design principles to various art forms including but not limited to sculpture, painting, and architecture. Upon completion, students should be able to identify and analyze a variety of artistic styles, periods, and media.(1997 SU) This course has been approved to satisfy the following requirement(s):

- UGETC course for A.A., A.A. Teacher Preparation, A.E., A.F.A., A.S. and A.S. Teacher Preparation
- Humanities/Fine Arts Gen. Ed. course for A.A.S. and A.G.E.

ART-114	Art History Survey I	3 (3-0)	Fall Spring
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Prerequisites: ENG-002^L or BSP-4002^L

Corequisites: None

This course covers the development of art forms from ancient times to the Renaissance. Emphasis is placed on content, terminology, design, and style. Upon completion, students should be able to demonstrate an historical understanding of art as a product reflective of human social development.(1997 SU) This course has been approved to satisfy the following requirement(s):

- UGETC course for A.A., A.A. Teacher Preparation, A.E., A.F.A. Music and Theatre, A.S. and A.S. Teacher Preparation
- Premajor and/or Elective course for A.F.A. Visual Arts
- Humanities/Fine Arts Gen. Ed. course for A.A.S. and A.G.E.

ART-115	Art History Survey II	3 (3-0)	Spring
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Prerequisites: ENG-002^L or BSP-4002^L

Corequisites: None

This course covers the development of art forms from the Renaissance to the present. Emphasis is placed on content, terminology, design, and style. Upon completion, students should be able to demonstrate an historical understanding of art as a product reflective of human social development.(1997 SU) This course has been approved to satisfy the following requirement(s):

- UGETC course for A.A., A.A. Teacher Preparation, A.E., A.F.A. Music and Theatre, A.S. and A.S. Teacher Preparation
- Humanities/Fine Arts Gen. Ed. course for A.A.S. and A.G.E.

COURSE DESCRIPTIONS

**ART-121 Two-Dimensional Design 3 (0-6) Fall
Spring**
Prerequisites: None**Corequisites:** None

This course introduces the elements and principles of design as applied to two-dimensional art. Emphasis is placed on the structural elements, the principles of visual organization, and the theories of color mixing and interaction. Upon completion, students should be able to understand and use critical and analytical approaches as they apply to two-dimensional visual art.(2012 SP) This course has been approved to satisfy the following requirement(s):

- Premajor and/or Elective course for A.A., A.F.A. (visual arts), and A.S.
- Humanities/Fine Arts Gen. Ed. course for A.A.S. and A.G.E.

**ART-122 Three-Dimensional Design 3 (0-6) Fall
Spring**
Prerequisites: None**Corequisites:** None

This course introduces basic studio problems in three-dimensional visual design. Emphasis is placed on the structural elements and organizational principles as applied to mass and space. Upon completion, students should be able to apply three-dimensional design concepts.(2012 SP) This course has been approved to satisfy the following requirement(s):

- Premajor and/or Elective course for A.A., A.F.A. (visual arts), and A.S.

**ART-131 Drawing I 3 (0-6) Fall
Spring**
Prerequisites: None**Corequisites:** None

This course introduces the language of drawing and the use of various drawing materials. Emphasis is placed on drawing techniques, media, and graphic principles. Upon completion, students should be able to demonstrate competence in the use of graphic form and various drawing processes.(1997 SU) This course has been approved to satisfy the following requirement(s):

- Premajor and/or Elective course for A.A., A.F.A. (visual arts), and A.S.
- Humanities/Fine Arts Gen. Ed. course for A.A.S. and A.G.E.

**ART-132 Drawing II 3 (0-6) Fall
Spring**
Prerequisites: ART-131^S**Corequisites:** None

This course continues instruction in the language of drawing and the use of various materials. Emphasis is placed on experimentation in the use of drawing techniques, media, and graphic materials. Upon completion, students should be able to demonstrate increased competence in the expressive use of graphic form and techniques.(1997 SU) This course has been approved to satisfy the following requirement(s):

- Premajor and/or Elective course for A.A. and A.S.
- Humanities/Fine Arts Gen. Ed. course for A.G.E.

ART-135	Figure Drawing I	3 (0-6)	AND
Prerequisites:	ART-131 ^S		
Corequisites:	None		
<p>This course introduces rendering the human figure with various drawing materials. Emphasis is placed on the use of the visual elements, anatomy, and proportion in the representation of the draped and undraped figure. Upon completion, students should be able to demonstrate competence in drawing the human figure.(1999 FA) This course has been approved to satisfy the following requirement(s):</p> <ul style="list-style-type: none"> • Premajor and/or Elective course for A.A. and A.S. 			
ART-171	Digital Design I	3 (0-6)	Fall Spring
Prerequisites:	None		
Corequisites:	None		
<p>This course is designed to introduce students to the elements and principles of design through the use of digital software. Emphasis is placed on developing composition and design skills using vector, raster, and time-based media. Upon completion, students should be able to identify and use tools in digital software, understand and utilize digital and artistic vocabulary, and employ the principles and elements of design to create artwork using digital means.(2019 FA) This course has been approved to satisfy the following requirement(s):</p> <ul style="list-style-type: none"> • Premajor and/or Elective course for A.A. and A.S. • Humanities/Fine Arts Gen. Ed. course for A.A.S. and A.G.E. 			
ART-214	Portfolio and Resume	1 (0-2)	Spring
Prerequisites:	None		
Corequisites:	None		
<p>This course covers resume writing, interview skills, and the preparation and presentation of an art portfolio. Emphasis is placed on the preparation of a portfolio of original artwork, the preparation of a photographic portfolio, approaches to resume writing, and interview techniques. Upon completion, students should be able to photograph and present a digital portfolio and write an effective resume.(2018 FA) This course has been approved to satisfy the following requirement(s):</p> <ul style="list-style-type: none"> • Premajor and/or Elective course for A.A. and A.S. 			
ART-231	Printmaking I	3 (0-6)	Spring
Prerequisites:	None		
Corequisites:	None		
<p>This course introduces printmaking: its history, development techniques, and processes. Emphasis is placed on basic applications with investigation into image source and development. Upon completion, students should be able to produce printed images utilizing a variety of methods.(1997 SU) This course has been approved to satisfy the following requirement(s):</p> <ul style="list-style-type: none"> • Premajor and/or Elective course for A.A. and A.S. 			

COURSE DESCRIPTIONS

ART-232 Printmaking II 3 (0-6) Spring**Prerequisites:** ART-231^S**Corequisites:** None

This course includes additional methods and printmaking processes. Emphasis is placed on the printed image as related to method, source, and concept. Upon completion, students should be able to produce expressive images utilizing both traditional and innovative methods.(1998 SU) This course has been approved to satisfy the following requirement(s):

- Premajor and/or Elective course for A.A. and A.S.

**ART-240 Painting I 3 (0-6) Fall
Spring****Prerequisites:** None**Corequisites:** None

This course introduces the language of painting and the use of various painting materials. Emphasis is placed on the understanding and use of various painting techniques, media, and color principles. Upon completion, students should be able to demonstrate competence in the use of creative processes directed toward the development of expressive form.(1997 SU) This course has been approved to satisfy the following requirement(s):

- Premajor and/or Elective course for A.A. and A.S.
- Humanities/Fine Arts Gen. Ed. course for A.A.S. and A.G.E.

**ART-241 Painting II 3 (0-6) Fall
Spring****Prerequisites:** ART-240^S**Corequisites:** None

This course provides a continuing investigation of the materials, processes, and techniques of painting. Emphasis is placed on the exploration of expressive content using a variety of creative processes. Upon completion, students should be able to demonstrate competence in the expanded use of form and variety.(1997 SU) This course has been approved to satisfy the following requirement(s):

- Premajor and/or Elective course for A.A. and A.S.
- Humanities/Fine Arts Gen. Ed. course for A.G.E.

ART-264 Digital Photography I 3 (0-6) Fall**Prerequisites:** None**Corequisites:** None

This course introduces digital photographic equipment, theory and processes. Emphasis is placed on camera operation, composition, computer photo manipulation and creative expression. Upon completion, students should be able to successfully expose, digitally manipulate, and print a well-conceived composition.(2016 FA) This course has been approved to satisfy the following requirement(s):

- Premajor and/or Elective course for A.A. and A.S.

ART-281 Sculpture I 3 (0-6) Fall**Prerequisites:** None**Corequisites:** None

This course provides an exploration of the creative and technical methods of sculpture with focus on the traditional processes. Emphasis is placed on developing basic skills as they pertain to three-dimensional expression in various media. Upon completion, students should be able to show competence in variety of sculptural approaches.(1999 FA) This course has been approved to satisfy the following requirement(s):

- Premajor and/or Elective course for A.A. and A.S.

**ART-283 Ceramics I 3 (0-6) Fall
Spring****Prerequisites:** None**Corequisites:** None

This course provides an introduction to three-dimensional design principles using the medium of clay. Emphasis is placed on fundamentals of forming, surface design, glaze application, and firing. Upon completion, students should be able to demonstrate skills in slab and coil construction, simple wheel forms, glaze technique, and creative expression.(1997 SU) This course has been approved to satisfy the following requirement(s):

- Premajor and/or Elective course for A.A. and A.S.
- Humanities/Fine Arts Gen. Ed. course for A.A.S. and A.G.E.

**ART-284 Ceramics II 3 (0-6) Fall
Spring****Prerequisites:** ART-283^S**Corequisites:** None

This course covers advanced hand building and wheel techniques. Emphasis is placed on creative expression, surface design, sculptural quality, and glaze effect. Upon completion, students should be able to demonstrate a high level of technical competence in forming and glazing with a development of three-dimensional awareness.(1997 SU) This course has been approved to satisfy the following requirement(s):

- Premajor and/or Elective course for A.A. and A.S.

ASL AMERICAN SIGN LANGUAGE**ASL-111 Elementary ASL I 3 (3-0) AND****Prerequisites:** None**Corequisites:** None

This course introduces the fundamental elements of American Sign Language within a cultural context. Emphasis is placed on the development of basic expressive and receptive skills. Upon completion, students will be able to comprehend and respond with grammatical accuracy to expressive American Sign Language and demonstrate cultural awareness.(2002 SP) This course has been approved to satisfy the following requirement(s):

- Humanities/Fine Arts Gen. Ed. course for A.A., A.A. Teacher Preparation, and A.S.

COURSE DESCRIPTIONS

ASL-112 Elementary ASL II 3 (3-0) AND**Prerequisites:** ASL-111^S**Corequisites:** None

This course is a continuation of ASL 111 focusing on the fundamental elements of American Sign Language in a cultural context. Emphasis is placed on the progressive development of expressive and receptive skills. Upon completion, the students should be able to comprehend and respond with increasing accuracy to expressive American Sign Language and demonstrate cultural awareness.(2002 SP) This course has been approved to satisfy the following requirement(s):

- Humanities/Fine Arts Gen. Ed. course for A.A., A.A. Teacher Preparation, and A.S.

ASL-211 Intermediate ASL I 3 (3-0) AND**Prerequisites:** ASL-112^S**Corequisites:** None

This course provides a review and expansion of the essential skills of American Sign Language. Emphasis is placed on the progressive development of expressive and receptive skills, study of authentic and representative literacy and cultural texts. Upon completion, students should be able to communicate effectively, accurately, and creatively using American Sign Language about the past, present, and future.(2002 SP) This course has been approved to satisfy the following requirement(s):

- Humanities/Fine Arts Gen. Ed. course for A.A., A.A. Teacher Preparation, and A.S.

ASL-212 Intermediate ASL II 3 (3-0) AND**Prerequisites:** ASL-211^S**Corequisites:** None

This course provides a continuation of ASL 211. Emphasis is placed on the continuing development of expressive and receptive skills, with study of authentic and representative literary and cultural texts. Upon completion, students should be able to communicate spontaneously and accurately with increasing complexity and sophistication.(2002 SP) This course has been approved to satisfy the following requirement(s):

- Humanities/Fine Arts Gen. Ed. course for A.A., A.A. Teacher Preparation, and A.S.

AST ASTRONOMY**AST-111 Descriptive Astronomy 3 (3-0) AND****Prerequisites:** ENG-002^L or BSP-4002^L, MAT-003^L or BSP-4003^L**Corequisites:** AST-111A^L

This course introduces an overall view of modern astronomy. Topics include an overview of the solar system, the sun, stars, galaxies, and the larger universe. Upon completion, students should be able to demonstrate an understanding of the universe around them.(1997 SU) This course has been approved to satisfy the following requirement(s):

- UGETC course for A.A., A.A. Teacher Preparation and A.F.A.
- Natural Science Gen. Ed. course for A.S. and A.S. Teacher Preparation
- Natural Science Gen. Ed. course for A.A.S. and A.G.E.

AST-111A Descriptive Astronomy Lab 1 (0-2) AND
Prerequisites: ENG-002^L or BSP-4002^L, MAT-003^L or BSP-4003^L
Corequisites: AST-111^S

The course is a laboratory to accompany AST 111. Emphasis is placed on laboratory experiences which enhance the materials presented in AST 111 and which provide practical experience. Upon completion, students should be able to demonstrate an understanding of the universe around them.(1997 SU) This course has been approved to satisfy the following requirement(s):

- UGETC course for A.A., A.A. Teacher Preparation and A.F.A.
- Natural Science Gen. Ed. course for A.S. and A.S. Teacher Preparation
- Natural Science Gen. Ed. course for A.A.S. and A.G.E.

AUB AUTOMOTIVE BODY REPAIR

AUB-111 Painting & Refinishing I 4 (2-6) Fall
Prerequisites: None

Corequisites: None

This course introduces the proper procedures for using automotive refinishing equipment and materials in surface preparation and application. Topics include federal, state, and local regulations, personal safety, refinishing equipment and materials, surface preparation, masking, application techniques, and other related topics. Upon completion, students should be able to identify and use proper equipment and materials in refinishing following accepted industry standards.(1997 SU)

AUB-112 Painting & Refinishing II 4 (2-6) Spring
Prerequisites: AUB-111^S
Corequisites: None

This course covers advanced painting techniques and technologies with an emphasis on identifying problems encountered by the refinishing technician. Topics include materials application, color matching, correction of refinishing problems, and other related topics. Upon completion, students should be able to perform spot, panel, and overall refinishing repairs and identify and correct refinish problems.(1997 SU)

AUB-114 Special Finishes 2 (1-2) Summer
Prerequisites: AUB-111^S
Corequisites: None

This course introduces multistage finishes, custom painting, and protective coatings. Topics include base coats, advanced intermediate coats, clear coats, and other related topics. Upon completion, students should be able to identify and apply specialized finishes based on accepted industry standards.(1997 SU)

AUB-121 Non-Structural Damage I 3 (1-4) Fall
Prerequisites: None

Corequisites: None

This course introduces safety, tools, and the basic fundamentals of body repair. Topics include shop safety, damage analysis, tools and equipment, repair techniques, materials selection, materials usage, and other related topics. Upon completion, students should be able to identify and repair minor direct and indirect damage including removal/repairing/replacing of body panels to accepted standards.(1997 SU)

COURSE DESCRIPTIONS

AUB-122	Non-Structural Damage II	4 (2-6)	Spring
Prerequisites:	None		
Corequisites:	None		
This course covers safety, tools, and advanced body repair. Topics include shop safety, damage analysis, tools and equipment, advanced repair techniques, materials selection, materials usage, movable glass, and other related topics. Upon completion, students should be able to identify and repair or replace direct and indirect damage to accepted standards including movable glass and hardware. (1997 SU)			
AUB-131	Structural Damage I	4 (2-4)	Spring
Prerequisites:	None		
Corequisites:	None		
This course introduces safety, equipment, structural damage analysis, and damage repairs. Topics include shop safety, design and construction, structural analysis and measurement, equipment, structural glass, repair techniques, and other related topics. Upon completion, students should be able to analyze and perform repairs to a vehicle which has received light/moderate structural damage.(1997 SU)			
AUB-132	Structural Damage II	4 (2-6)	Summer
Prerequisites:	AUB-131 ^S		
Corequisites:	None		
This course provides an in-depth study of structural damage analysis and repairs to vehicles that have received moderate to heavy structural damage. Topics include shop safety, structural analysis and measurement, equipment, structural glass, advanced repair techniques, structural component replacement and alignment, and other related topics. Upon completion, students should be able to analyze and perform repairs according to industry standards.(1997 SU)			
AUB-136	Plastics & Adhesives	3 (1-4)	Summer
Prerequisites:	None		
Corequisites:	None		
This course covers safety, plastic and adhesive identification, and the various repair methods of automotive plastic components. Topics include safety, identification, preparation, material selection, and the various repair procedures including refinishing. Upon completion, students should be able to identify, remove, repair, and/or replace automotive plastic components in accordance with industry standards.(1997 SU)			
AUB-141	Mech & Elec Components I	3 (2-2)	Fall
Prerequisites:	None		
Corequisites:	None		
This course covers the basic principles of automotive mechanical and electrical components. Topics include personal and environmental safety and suspension and steering, electrical, brake, heating and air-conditioning, cooling, drive train, and restraint systems. Upon completion, students should be able to identify system components and perform basic system diagnostic checks and/or repairs according to industry standards.(1997 SU)			

AUB-144 Mech & Elec Specialties 3 (2-2) Spring**Prerequisites:** None**Corequisites:** None

This course concentrates on special automotive mechanical and electrical system operations and diagnostics. Topics include personal and environmental safety, suspension and steering, electrical, restraint, and air-conditioning systems. Upon completion, students should be able to identify system components and perform basic system diagnostic checks and/or repairs according to industry standards. (1997 SU)

AUB-150 Automotive Detailing 2 (1-3) AND**Prerequisites:** None**Corequisites:** None

This course covers the methods and procedures used in automotive detailing facilities. Topics include safety, engine, interior and trunk compartment detailing, buffing/polishing exterior surfaces, and cleaning and reconditioning exterior trim, fabrics, and surfaces. Upon completion, students should be able to improve the overall appearance of a vehicle. (1997 SU)

AUB-162 Autobody Estimating 2 (1-2) Fall**Prerequisites:** None**Corequisites:** None

This course provides a comprehensive study of autobody estimating. Topics include collision damage analysis, industry regulations, flat-rate and estimated time, and collision estimating manuals. Upon completion, students should be able to prepare and interpret a damage report. (1997 SU)

AUC AUTOMOTIVE CUSTOMIZING

AUC-112 Auto Custom Fabrication 4 (2-4) Fall**Prerequisites:** None**Corequisites:** None

This course covers modifications of existing vehicle components, as well as fabrication of new vehicle components. Emphasis is placed on basic customizing techniques used on factory original parts, as well as fabrication of custom components using machining processes and customizing techniques. Upon completion, students should be able to modify existing factory components and create custom-fabricated components using auto customizing techniques. (2006 FA)

AUC-114 Custom Fiberglass Skills 4 (2-4) Fall**Prerequisites:** None**Corequisites:** None

This course will provide instruction in non-metallic customizing and repair techniques. Emphasis will be placed on diagnosis and repair of cracks, proper use of bonding agents, fiberglass body parts removal/replacement, and custom fabrication techniques using fiberglass materials. Upon completion, students should be able to identify types of fiberglass and demonstrate the ability to properly prepare, apply, and finish fiberglass components. (2006 FA)

AUM - AUTOMOTIVE MANAGEMENT

AUM-111 Managing Automotive Org 3 (3-0) Spring

Prerequisites: None

Corequisites: None

This course will cover the principles and procedures involved in managing an automotive facility. Emphasis is placed on record maintenance, facility layout, technical service training, personnel management, parts management, and computer-based shop management systems. Upon completion, students should be able to demonstrate procedures used in the day-to-day operations of an automotive facility.(2007 FA)

AUT AUTOMOTIVE

AUT-113 Automotive Servicing I 2 (0-6) AND

Prerequisites: TRN-110^L

Corequisites: None

This course is a lab used as an alternative to co-op placement. Emphasis is placed on shop operations, troubleshooting, testing, adjusting, repairing, and replacing components using appropriate test equipment and service information. Upon completion, students should be able to perform a variety of automotive repairs using proper service procedures and to operate appropriate equipment.(2007 FA)

AUT-116 Engine Repair 3 (2-3) Fall

Prerequisites: TRN-110^L

Corequisites: AUT-116A^L

This course covers the theory, construction, inspection, diagnosis, and repair of internal combustion engines and related systems. Topics include fundamental operating principles of engines and diagnosis, inspection, adjustment, and repair of automotive engines using appropriate service information. Upon completion, students should be able to perform basic diagnosis, measurement and repair of automotive engines using appropriate tools, equipment, procedures, and service information.(2007 FA)

AUT-116A Engine Repair Lab 1 (0-3) Fall

Prerequisites: TRN-110^L

Corequisites: AUT-116^S

This course is an optional lab to be used as an alternative to co-op placement in meeting the NATEF standards for total hours. Topics include diagnosis, inspection, adjustment, and repair of automotive engines using appropriate service information. Upon completion, students should be able to perform basic diagnosis, measurement and repair of automotive engines using appropriate tools, equipment, procedures, and service information.(2007 FA)

AUT-141	Suspension & Steering Sys	3 (2-3)	Fall Summer
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Prerequisites: None

Corequisites: AUT-141A^L

This course covers principles of operation, types, and diagnosis/repair of suspension and steering systems to include steering geometry. Topics include manual and power steering systems and standard and electronically controlled suspension and steering systems. Upon completion, students should be able to service and repair steering and suspension components, check and adjust alignment angles, repair tires, and balance wheels.(2007 FA)

AUT-141A	Suspension & Steering Lab	1 (0-3)	Fall Summer
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Prerequisites: None

Corequisites: AUT-141^S

This course is an optional lab to be used as an alternative to co-op placement in meeting the NATEF standards for total hours. Topics include manual and power steering systems and standard and electronically controlled suspension and steering systems. Upon completion, students should be able to service and repair steering and suspension components, check and adjust alignment angles, repair tires, and balance wheels.(2007 FA)

AUT-151	Brake Systems	3 (2-3)	Spring
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Prerequisites: TRN-110^L

Corequisites: AUT-151A^L

This course covers principles of operation and types, diagnosis, service, and repair of brake systems. Topics include drum and disc brakes involving hydraulic, vacuum boost, hydra-boost, electrically powered boost, and anti-lock and parking brake systems. Upon completion, students should be able to diagnose, service, and repair various automotive braking systems.(2007 FA)

AUT-151A	Brakes Systems Lab	1 (0-3)	Spring
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Prerequisites: TRN-110^L

Corequisites: AUT-151^S

This course is an optional lab to be used as an alternative to co-op placement in meeting the NATEF standards for total hours. Topics include drum and disc brakes involving hydraulic, vacuum-boost, hydra-boost, electrically powered boost, and anti-lock, parking brake systems and emerging brake systems technologies. Upon completion, students should be able to diagnose, service, and repair various automotive braking systems.(2007 FA)

AUT-163	Adv Auto Electricity	3 (2-3)	Fall Spring
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Prerequisites: TRN-120^S

Corequisites: None

This course covers electronic theory, wiring diagrams, test equipment, and diagnosis, repair, and replacement of electronics, lighting, gauges, horn, wiper, accessories, and body modules. Topics include networking and module communication, circuit construction, wiring diagrams, circuit testing, and troubleshooting. Upon completion, students should be able to properly use wiring diagrams, diagnose, test, and repair wiring, lighting, gauges, accessories, modules, and electronic concerns.(2013 FA)

COURSE DESCRIPTIONS

AUT-181	Engine Performance 1	3 (2-3)	Fall Spring
Prerequisites: None Corequisites: None This course covers the introduction, theory of operation, and basic diagnostic procedures required to restore engine performance to vehicles equipped with complex engine control systems. Topics include an overview of engine operation, ignition components and systems, fuel delivery, injection components and systems and emission control devices. Upon completion, students should be able to describe operation and diagnose/repair basic ignition, fuel and emission related driveability problems using appropriate test equipment/service information.(2007 FA)			
AUT-183	Engine Performance 2	4 (2-6)	Fall Spring
Prerequisites: AUT-181 ^S Corequisites: None This course covers study of the electronic engine control systems, the diagnostic process used to locate engine performance concerns, and procedures used to restore normal operation. Topics will include currently used fuels and fuel systems, exhaust gas analysis, emission control components and systems, OBD II (on-board diagnostics) and inter-related electrical/electronic systems. Upon completion, students should be able to diagnose and repair complex engine performance concerns using appropriate test equipment and service information.(2007 FA)			
AUT-221	Auto Transm/Transaxles	3 (2-3)	Summer
Prerequisites: None Corequisites: None This course covers operation, diagnosis, service, and repair of automatic transmissions/transaxles. Topics include hydraulic, pneumatic, mechanical, and electrical/electronic operation of automatic drive trains and the use of appropriate service tools and equipment. Upon completion, students should be able to explain operational theory, diagnose and repair automatic drive trains.(2007 FA)			
AUT-231	Man Trans/Axles/Drtrains	3 (2-3)	Spring
Prerequisites: TRN-110 ^L Corequisites: None This course covers the operation, diagnosis, and repair of manual transmissions/transaxles, clutches, driveshafts, axles, and final drives. Topics include theory of torque, power flow, and manual drive train servicing and repair using appropriate service information, tools, and equipment. Upon completion, students should be able to explain operational theory, diagnose and repair manual drive trains.(2008 SP)			

BAF-110	Principles of Banking	3 (3-0)	Fall
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This course covers the fundamentals of bank functions in a descriptive fashion. Topics include banks and the monetary system, the relationship of banks to depositors, the payment functions, bank loans and accounting, regulations, and examinations. Upon completion, students should be able to demonstrate an understanding of the business of banking from a broad perspective.(2015 FA)

BAS-120	Intro to Analytics	3 (2-3)	Fall
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This course introduces basic concepts and applications of analytics. Topics include an overview of the analytical process and the role of the analyst, applied descriptive statistics, and exploratory data analysis. Upon completion, students should be able to demonstrate a basic understanding of analytics for decision-making in business. (2015 FA)

BIO-094	Concepts of Human Biology	4 (3-2)	Fall Spring
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This course focuses on fundamental concepts of human biology. Topics include terminology, biochemistry, cell biology, tissues, body systems, and other related topics. Upon completion, students should be able to demonstrate preparedness for college-level anatomy and physiology courses.(2020 FA)

BIO-110	Principles of Biology	4 (3-3)	Fall Spring Summer
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This course provides a survey of fundamental biological principles for non-science majors. Emphasis is placed on basic chemistry, cell biology, metabolism, genetics, evolution, ecology, diversity, and other related topics. Upon completion, students should be able to demonstrate increased knowledge and better understanding of biology as it applies to everyday life.(2014 FA) This course has been approved to satisfy the following requirement(s):

- UGETC course for A.A., A.A. Teacher Preparation, and A.F.A.
- Natural Science Gen. Ed. course for A.S. and A.S. Teacher Preparation
- Natural Science Gen. Ed. course for A.A.S. and A.G.E.

BIO-111	General Biology I	4 (3-3)	Fall Spring Summer
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Prerequisites: ENG-002^L or BSP-4002^L

Corequisites: None

This course introduces the principles and concepts of biology. Emphasis is placed on basic biological chemistry, molecular and cellular biology, metabolism and energy transformation, genetics, evolution, and other related topics. Upon completion, students should be able to demonstrate understanding of life at the molecular and cellular levels.(2014 FA) This course has been approved to satisfy the following requirement(s):

- UGETC course for A.A., A.A. Teacher Preparation, A.F.A., A.S., and A.S. Teacher Preparation
- Other Gen. Ed. and Premajor Elective Hour course for A.E.
- Natural Science Gen. Ed. course for A.A.S. and A.G.E.

BIO-112	General Biology II	4 (3-3)	Fall Spring Summer
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Prerequisites: BIO-111^S, minimum grade CL

Corequisites: None

This course is a continuation of BIO 111. Emphasis is placed on organisms, evolution, biodiversity, plant and animal systems, ecology, and other related topics. Upon completion, students should be able to demonstrate comprehension of life at the organismal and ecological levels.(2014 FA) This course has been approved to satisfy the following requirement(s):

- UGETC course for A.S., and A.S. Teacher Preparation
- Natural Science Gen. Ed. course for A.A., and A.A. Teacher Preparation
- Natural Science Gen. Ed. course for A.G.E.

BIO-120	Introductory Botany	4 (3-3)	AND
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Prerequisites: BIO-110^S or BIO-111^S, minimum grade CL

Corequisites: None

This course provides an introduction to the classification, relationships, structure, and function of plants. Topics include reproduction and development of seed and non-seed plants, levels of organization, form and function of systems, and a survey of major taxa. Upon completion, students should be able to demonstrate comprehension of plant form and function, including selected taxa of both seed and non-seed plants.(1997 SU) This course has been approved to satisfy the following requirement(s):

- Natural Science Gen. Ed. course for A.A., A.A. Teacher Preparation, A.S., and A.S. Teacher Preparation
- Natural Science Gen. Ed. course for A.G.E.

BIO-130 Introductory Zoology 4 (3-3) AND**Prerequisites:** BIO-110^S or BIO-111^S, minimum grade CL**Corequisites:** None

This course provides an introduction to the classification, relationships, structure, and function of major animal phyla. Emphasis is placed on levels of organization, reproduction and development, comparative systems, and a survey of selected phyla. Upon completion, students should be able to demonstrate comprehension of animal form and function including comparative systems of selected groups. (1997 SU) This course has been approved to satisfy the following requirement(s):

- Natural Science Gen. Ed. course for A.A., A.A. Teacher Preparation, A.S., and A.S. Teacher Preparation
- Natural Science Gen. Ed. course for A.G.E.

**BIO-140 Environmental Biology 3 (3-0) Fall
Spring****Prerequisites:** ENG-002^L or BSP-4002^L**Corequisites:** BIO-140A^L

This course introduces environmental processes and the influence of human activities upon them. Topics include ecological concepts, population growth, natural resources, and a focus on current environmental problems from scientific, social, political, and economic perspectives. Upon completion, students should be able to demonstrate an understanding of environmental interrelationships and of contemporary environmental issues. (1997 SU) This course has been approved to satisfy the following requirement(s):

- Natural Science Gen. Ed. course for A.A., A.A. Teacher Preparation, A.S., and A.S. Teacher Preparation
- Natural Science Gen. Ed. course for A.A.S. and A.G.E.

**BIO-140A Environmental Biology Lab 1 (0-3) Fall
Spring****Prerequisites:** ENG-002^L or BSP-4002^L**Corequisites:** BIO-140^S

This course provides a laboratory component to complement BIO 140. Emphasis is placed on laboratory and field experience. Upon completion, students should be able to demonstrate a practical understanding of environmental interrelationships and of contemporary environmental issues. (1997 SU) This course has been approved to satisfy the following requirement(s):

- Natural Science Gen. Ed. course for A.A., A.A. Teacher Preparation, A.S., and A.S. Teacher Preparation
- Natural Science Gen. Ed. course for A.A.S. and A.G.E.

BIO-155	Nutrition	3 (3-0)	Fall Spring Summer
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Prerequisites: ENG-002^L or BSP-4002^L

Corequisites: None

This course covers the biochemistry of foods and nutrients with consideration of the physiological effects of specialized diets for specific biological needs. Topics include cultural, religious, and economic factors that influence a person's acceptance of food, as well as nutrient requirements of the various life stages. Upon completion, students should be able to identify the functions and sources of nutrients, the mechanisms of digestion, and the nutritional requirements of all age groups.(1997 SU) This course has been approved to satisfy the following requirement(s):

- Premajor and/or Elective course for A.A. and A.S.

BIO-163	Basic Anat & Physiology	5 (4-2)	Fall Spring
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Prerequisites: ENG-002^L or BSP-4002^L

Corequisites: None

This course provides a basic study of the structure and function of the human body. Topics include a basic study of the body systems as well as an introduction to homeostasis, cells, tissues, nutrition, acid-base balance, and electrolytes. Upon completion, students should be able to demonstrate a basic understanding of the fundamental principles of anatomy and physiology and their interrelationships. (1997 SU) This course has been approved to satisfy the following requirement(s):

- Premajor and/or Elective course for A.A. and A.S.
- Natural Sciences Gen. Ed. course for A.A.S. and A.G.E.

BIO-168	Anatomy and Physiology I	4 (3-3)	Fall Spring Summer
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Prerequisites: ENG-002^L or BSP-4002^L

Corequisites: None

This course provides a comprehensive study of the anatomy and physiology of the human body. Topics include body organization, homeostasis, cytology, histology, and the integumentary, skeletal, muscular, and nervous systems and special senses. Upon completion, students should be able to demonstrate an in-depth understanding of principles of anatomy and physiology and their interrelationships. (1998 FA) This course has been approved to satisfy the following requirement(s):

- Premajor and/or Elective course for A.A. and A.S.
- Natural Sciences Gen. Ed. course for A.A.S. and A.G.E.

BIO-169	Anatomy and Physiology II	4 (3-3)	Fall Spring Summer
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Prerequisites: BIO-169^S, minimum grade CL

Corequisites: None

This course provides a continuation of the comprehensive study of the anatomy and physiology of the human body. Topics include the endocrine, cardiovascular, lymphatic, respiratory, digestive, urinary, and reproductive systems as well as metabolism, nutrition, acid-base balance, and fluid and electrolyte balance. Upon completion, students should be able to demonstrate an in-depth understanding of principles of anatomy and physiology and their interrelationships.(1998 FA) This course has been approved to satisfy the following requirement(s):

- Premajor and/or Elective course for A.A. and A.S.
- Natural Science Gen. Ed. course for A.G.E.

BIO-175	General Microbiology	3 (2-2)	Spring
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Prerequisites: BIO-110^S, BIO-111^S, BIO-163^S, or BIO-165^S, minimum grade CL

Corequisites: None

This course covers principles of microbiology with emphasis on microorganisms and human disease. Topics include an overview of microbiology and aspects of medical microbiology, identification and control of pathogens, disease transmission, host resistance, and immunity. Upon completion, students should be able to demonstrate knowledge of microorganisms and the disease process as well as aseptic and sterile techniques.(2004 FA) This course has been approved to satisfy the following requirement(s):

- Premajor and/or Elective course for A.A. and A.S.
- Natural Science Gen. Ed. course for A.G.E.

BIO-275	Microbiology	4 (3-3)	Fall Spring Summer
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Prerequisites: BIO-110^S, BIO-111^S, BIO-163^S, or BIO-165^S, minimum grade CL

Corequisites: None

This course covers principles of microbiology and the impact these organisms have on man and the environment. Topics include the various groups of microorganisms, their structure, physiology, genetics, microbial pathogenicity, infectious diseases, immunology, and selected practical applications. Upon completion, students should be able to demonstrate knowledge and skills including microscopy, aseptic technique, staining, culture methods, and identification of microorganisms.(2023 FA) This course has been approved to satisfy the following requirement(s):

- Premajor and/or Elective course for A.A. and A.S.
- Natural Science Gen. Ed. course for A.G.E.

BMT-111	Intro to Biomed Field	2 (2-0)	Spring
Prerequisites:	None		
Corequisites:	None		

BMT-212	BMET Instrumentation I	6 (3-6)	Summer
Prerequisites:	None		
Corequisites:	None		

BPA-120	Petit Fours & Pastries	3 (1-4)	Fall
Prerequisites:	CUL-110 ^S , CUL-160 ^S		
Corequisites:	None		

BPA-130	European Cakes and Tortes	3 (1-4)	Summer
Prerequisites:	CUL-110 ^S , CUL-160 ^S		
Corequisites:	None		

BPA-150	Artisan & Specialty Bread	4 (1-6)	Spring
Prerequisites:	CUL-110 ^S , CUL-160 ^S		
Corequisites:	None		

This course provides an advanced study in the art and craft of bread making. Topics include pertinent formulas and techniques associated with naturally leavened loaves, hearth breads, focaccia, flat breads, and other breads utilizing a variety of grains. Upon completion, students should be able to prepare artisan and specialty breads that meet or exceed the expectations of restaurant and retail publics. (2003 FA)

BPA-165 Hot and Cold Desserts 3 (1-4) Spring
Prerequisites: CUL-110^S, CUL-160^S
Corequisites: None

This course covers the principles and techniques of frozen desserts, souffles, cobblers, crisps, and strudel dough products. Topics include bombes, parfaits, baked Alaska, ice cream, sorbets, sherbets and granites hand-stretched strudel products, crepes, and hot/cold souffles. Upon completion, student should be able to prepare and plate hot and cold desserts with suitable sauces and garnishes. (2011 FA)

BPA-210 Cake Design & Decorating 3 (1-4) Fall
Prerequisites: BPA-130^L, CUL-110^S, CUL-160^S; ENG-002^L or BSP-4002^L
Corequisites: None

This course covers advanced concepts in the design and decoration of wedding cakes and other specialty cakes. Topics include baking, filling, and assembling cakes cake design finishing techniques utilizing gum paste, fondant, and royal icing and advanced piping skills. Upon completion, students should be able to design, create, finish and evaluate the quality of wedding and specialty cakes.(2011 FA)

BPA-212 Adv. Cake Design & Decorating 3 (1-4) Spring
Prerequisites: BPA-210

Corequisites: None

This course is designed to build upon basic concepts introduced in BPA 210 to expand students' range of cake design and decorating skills. Topics include advanced fondant skills, overpiping, bridgework and string work, airbrushing and painting, carving and shaping cakes, and a broad range of gumpaste decorations for both classic and modern design themes. Upon completion, students should be able to conceive, plan, execute, and evaluate complex wedding and specialty cake designs with a focus on meeting both business objectives and client expectations. (2021 FA)

BPA-250 Dessert/Bread Production 5 (1-8) Fall
Prerequisites: BPA-150^S; ENG-002^L or BSP-4002^L
Corequisites: None

This course is designed to merge artistry and innovation with the practical baking and pastry techniques utilized in a production setting. Emphasis is placed on quantity bread and roll-in dough production, plated and platter presentations, seasonal/theme product utilization and cost effectiveness. Upon completion, students should be able to plan, prepare and evaluate breads and desserts within a commercial environment and determine production costs and selling prices.(2012 SU)

BPA-260 Pastry & Baking Marketing 3 (2-2) Spring
Prerequisites: BPA-150^S, BPA-210^S
Corequisites: BPA-250^S

This course is designed to cover the marketing concepts and merchandising trends utilized in bakery and pastry operations. Emphasis is placed on menu planning, pricing products/strategies, resale and wholesale distribution methods, legal implications, and advertising techniques. Upon completion, students should be able to create a marketing plan that will serve as a basis for a capstone experience. (2011 FA)

BPR BLUEPRINT READING

BPR-130 Print Reading-Construction 3 (3-0) Fall

Prerequisites: None

Corequisites: None

This course covers the interpretation of prints and specifications that are associated with design and construction projects. Topics include interpretation of documents for foundations, floor plans, elevations, and related topics. Upon completion, students should be able to read and interpret construction prints and documents.(2013 FA)

BUS BUSINESS

**BUS-110 Introduction to Business 3 (3-0) Fall
Spring
Summer**

Prerequisites: ENG-002^L or BSP-4002^L

Corequisites: None

This course provides a survey of the business world. Topics include the basic principles and practices of contemporary business. Upon completion, students should be able to demonstrate an understanding of business concepts as a foundation for studying other business subjects.(2015 FA) This course has been approved to satisfy the following requirement(s):

- Premajor and/or Elective course for A.A. and A.S.

**BUS-115 Business Law I 3 (3-0) Fall
Spring**

Prerequisites: ENG-002^L or BSP-4002^L

Corequisites: None

This course introduces the student to the legal and ethical framework of business. Contracts, negotiable instruments, the law of sales, torts, crimes, constitutional law, the Uniform Commercial Code, and the court systems are examined. Upon completion the student should be able to identify legal and ethical issues that arise in business decisions and the laws that apply to them.(2015 FA) This course has been approved to satisfy the following requirement(s):

- Premajor and/or Elective course for A.A. and A.S.

**BUS-121 Business Math 3 (2-2) Fall
Spring**

Prerequisites: ENG-002^L or BSP-4002^L, MAT-003^L or BSP-4003^L

Corequisites: None

This course covers fundamental mathematical operations and their application to business problems. Topics include payroll, pricing, interest and discount, commission, taxes, and other pertinent uses of mathematics in the field of business. Upon completion, students should be able to apply mathematical concepts to business.(1997 SU)

BUS-125	Personal Finance	3 (3-0)	AND
Prerequisites:	ENG-002 ^L or BSP-4002 ^L		
Corequisites:	None		
This course provides a study of individual and family financial decisions. Emphasis is placed on building useful skills in buying, managing finances, increasing resources, and coping with current economic conditions. Upon completion, students should be able to develop a personal financial plan.(1997 SU)			
BUS-137	Principles of Management	3 (3-0)	Fall Spring Summer
Prerequisites:	ENG-002 ^L or BSP-4002 ^L		
Corequisites:	None		
This course is designed to be an overview of the major functions of management. Emphasis is placed on planning, organizing, controlling, directing, and communicating. Upon completion, students should be able to work as contributing members of a team utilizing these functions of management.(2015 FA) This course has been approved to satisfy the following requirement(s):			
<ul style="list-style-type: none">• Premajor and/or Elective course for A.A. and A.S.			
BUS-139	Entrepreneurship I	3 (3-0)	Fall Spring
Prerequisites:	ENG-002 ^L or BSP-4002 ^L		
Corequisites:	None		
This course provides an introduction to the principles of entrepreneurship. Topics include self-analysis of entrepreneurship readiness, the role of entrepreneur in economic development, legal problems, organizational structure, sources of financing, budgeting, and cash flow. Upon completion, students should have an understanding of the entrepreneurial process and issues faced by entrepreneurs. (2008 FA)			
BUS-148	Survey of Real Estate	3 (3-0)	Fall
Prerequisites:	None		
Corequisites:	None		
This course introduces real estate principles and practices. Topics include real estate finance, real estate law, brokerage, land use planning, property management, and valuation. Upon completion, students should be able to explain basic procedures involved in the lease, purchase, and sale of real property.(1997 SU)			
BUS-151	People Skills	3 (3-0)	Spring
Prerequisites:	None		
Corequisites:	None		
This course introduces the basic concepts of identity and communication in the business setting. Topics include self-concept, values, communication styles, feelings and emotions, roles versus relationships, and basic assertiveness, listening, and conflict resolution. Upon completion, students should be able to distinguish between unhealthy, self-destructive, communication patterns and healthy, non-destructive, positive communication patterns.(1997 SU)			

BUS-153	Human Resource Management	3 (3-0)	Fall Spring
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Prerequisites: ENG-002^L or BSP-4002^L

Corequisites: None

This course introduces the functions of personnel/human resource management within an organization. Topics include equal opportunity and the legal environment, recruitment and selection, performance appraisal, employee development, compensation planning, and employee relations. Upon completion, students should be able to anticipate and resolve human resource concerns.(1997 SU)

BUS-225	Business Finance	3 (2-2)	Spring
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Prerequisites: ACC-120^S

Corequisites: None

This course provides an overview of business financial management. Emphasis is placed on financial statement analysis, time value of money, management of cash flow, risk and return, and sources of financing. Upon completion, students should be able to interpret and apply the principles of financial management.(1997 SU)

BUS-230	Small Business Management	3 (3-0)	Fall Spring
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Prerequisites: ENG-002^L or BSP-4002^L

Corequisites: None

This course introduces the challenges of entrepreneurship including the startup and operation of a small business. Topics include market research techniques, feasibility studies, site analysis, financing alternatives, and managerial decision making. Upon completion, students should be able to develop a small business plan.(1997 SU)

BUS-255	Org Behavior in Business	3 (3-0)	Spring
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Prerequisites: ENG-002^L or BSP-4002^L

Corequisites: None

This course covers the impact of different management practices and leadership styles on worker satisfaction and morale, organizational effectiveness, productivity, and profitability. Topics include a discussion of formal and informal organizations, group dynamics, motivation, and managing conflict and change. Upon completion, students should be able to analyze different types of interpersonal situations and determine an appropriate course of action.(1997 SU)

BUS-260	Business Communication	3 (3-0)	Spring
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Prerequisites: ENG-111^S

Corequisites: None

This course is designed to develop skills in writing business communications. Emphasis is placed on business reports, correspondence, and professional presentations. Upon completion, students should be able to communicate effectively in the work place.(2014 SP)

CAT COMPUTED TOMOGRAPHY

CAT-210 **CT Physics & Equipment** **3 (3-0)** **Spring**

Prerequisites: None

Corequisites: None

This course covers the system operations and components, image processing and display, image quality, and artifacts in computed tomography. Emphasis is placed on the data acquisition components, tissue attenuation conversions, image manipulation, and factors controlling image resolution. Upon completion, students should be able to understand the physics and instrumentation used in computed tomography.(1997 SU)

CAT-211 **CT Procedures** **4 (4-0)** **Fall**

Prerequisites: None

Corequisites: None

This course is designed to cover specialized patient care, cross-sectional anatomy, contrast media, and scanning procedures in computed tomography. Emphasis is placed on patient assessment and monitoring, contrast agents' use, radiation safety, methods of data acquisition, and identification of cross-sectional anatomy. Upon completion, students should be able to integrate all facets of the imaging procedures in computed tomography.(2016 SP)

CAT-225 **CT Clinical Practicum** **5** **Fall**
(0-0-15)

Prerequisites: None

Corequisites: None

This course provides the opportunity to apply knowledge gained from classroom instruction to the computed tomography clinical setting. Emphasis is placed on patient care and positioning, scanning procedures, and image production in computed tomography. Upon completion, students should be able to assume a variety of duties and responsibilities within the computed tomography clinical environment.(1997 SU)

CAT-226 **CT Clinical Practicum** **6** **Spring**
(0-0-18)

Prerequisites: None

Corequisites: None

This course provides the opportunity to apply knowledge gained from classroom instruction to the computed tomography clinical setting. Emphasis is placed on patient care and positioning, scanning procedures, and image production in computed tomography. Upon completion, students should be able to assume a variety of duties and responsibilities within the computed tomography clinical environment.(1997 SU)

CEG-111	Intro to Gis and Gnss	4 (2-4)	Spring
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4 (2-4) Spring

Corequisites: None

CEG-115 **Intro to Tech & Sustainability**

3 (2-3) Fall

Corequisites: CEG-115A^L

CEG-115A Tech & Sustainability Lab

1 (0-3) Fall

Corequisites: CEG-115^S

CEG-210 Construction Mtls & Methods

3 (2-3) Fall

Corequisites: EGR-115^L or CEG-115^L

CEG-211 Hydrology & Erosion Control

3 (2-3) Fall

Prerequisites: MAT-121^S, MAT-171^S, MAT-003 w/P2S, or BSP-4003^S

This course introduces basic engineering principles and characteristics of hydrology, erosion and sediment control. Topics include stormwater runoff, gravity pipe flow, open channel flow, low impact development (LID), erosion control devices and practices. Upon completion, students should be able to analyze and design gravitational drainage structures, identify LID and erosion control elements, and prepare a stormwater drainage plan.(2013 FA)

CEG-212 Intro to Environmental Tech 3 (2-3) Spring
Prerequisites: EGR-251^S**Corequisites:** None

This course introduces basic engineering principles of hydraulics, and water and wastewater technologies. Topics include fluid statics, fluid dynamics, flow measurement, the collection, treatment, and distribution of water and wastewater. Upon completion, students should be able to identify water and wastewater system elements, describe water and wastewater system processes and perform basic hydraulics and treatment computations.(2013 FA)

CEG-230 Subdivision Planning & Design 3 (1-6) Spring**Prerequisites:** EGR-120^S, CEG-211^S, SRV-211^S**Corequisites:** None

This course covers the planning and design concepts related to subdivisions including analysis of development standards, engineering, and the creation of CAD drawings. Topics include applicable codes, lot creation, roadway system layout, stormwater drainage, low impact development (LID) concepts, and related topics. Upon completion, students should be able to prepare a set of subdivision plans. (2013 FA)

CEG-235 Project Management/Estimating 3 (2-3) Spring**Prerequisites:** CEG-115^S, CIS-110^S, CIS-111^S, EGR-115^S, or EGR-125^S**Corequisites:** None

This course covers planning and estimating practices which are applicable to the civil engineering and related construction industries. Emphasis is placed on construction project planning and management, material take-offs labor and equipment requirements in accordance with industry formats, and other economic topics. Upon completion, students should be able to accurately complete material take-offs, prepare cost estimates, and prepare construction schedules.(2014 SU)

CET COMPUTER ENGINEERING TECH

**CET-111 Computer Upgrade/Repair I 3 (2-3) Fall
Spring
Summer**
Prerequisites: None**Corequisites:** None

This course covers repairing, servicing, and upgrading computers and peripherals in preparation for industry certification. Topics include CPU/memory/bus identification, disk subsystems, hardware/software installation/configuration, common device drivers, data recovery, system maintenance, and other related topics. Upon completion, students should be able to safely repair and/or upgrade computer systems to perform within specifications.(2007 FA)

CET-211 Computer Upgrade/Repair II 3 (2-3) Spring**Prerequisites:** CET-111^L**Corequisites:** None

This course covers concepts of repair, service, and upgrade of computers and peripherals in preparation for industry certification. Topics may include resolving resource conflicts and system bus specifications, configuration and troubleshooting peripherals, operating system configuration and optimization, and other related topics. Upon completion, students should be able to identify and resolve system conflicts and optimize system performance.(2007 FA)

CHM CHEMISTRY

CHM-130 Gen, Org, & Biochemistry 3 (3-0) Fall
Prerequisites: None

Corequisites: CHM-130A^L

This course provides a survey of basic facts and principles of general, organic, and biochemistry. Topics include measurement, molecular structure, nuclear chemistry, solutions, acid-base chemistry, gas laws, and the structure, properties, and reactions of major organic and biological groups. Upon completion, students should be able to demonstrate an understanding of fundamental chemical concepts.(1997 SU) This course has been approved to satisfy the following requirement(s):

- Premajor and/or Elective course for A.A. and A.S.
- Natural Sciences Gen. Ed. course for A.A.S. and A.G.E.

CHM-130A Gen, Org, & Biochem Lab 1 (0-2) Fall
Prerequisites: None

Corequisites: CHM-130^S

This course is a laboratory for CHM 130. Emphasis is placed on laboratory experiences that enhance materials presented in CHM 130. Upon completion, students should be able to utilize basic laboratory procedures and apply them to chemical principles presented in CHM 130.(1997 SU) This course has been approved to satisfy the following requirement(s):

- Premajor and/or Elective course for A.A. and A.S.
- Natural Sciences Gen. Ed. course for A.A.S. and A.G.E.

**CHM-151 General Chemistry I 4 (3-3) Fall
Spring
Summer**
Prerequisites: MAT-003 w/P2L, BSP-4003 w/P2L, MAT-021^L, MAT-043^L, MAT-052^L, or MAT-071^L
Corequisites: None

This course covers fundamental principles and laws of chemistry. Topics include measurement, atomic and molecular structure, periodicity, chemical reactions, chemical bonding, stoichiometry, thermochemistry, gas laws, and solutions. Upon completion, students should be able to demonstrate an understanding of fundamental chemical laws and concepts as needed in CHM 152.(1997 SU) This course has been approved to satisfy the following requirement(s):

- UGETC course for A.A., A.A. Teacher Preparation, A.E., A.F.A., A.S. and A.S. Teacher Preparation
- Natural Sciences Gen. Ed. course for A.A.S. and A.G.E.

CHM-152	General Chemistry II	4 (3-3)	Fall Spring Summer
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Prerequisites: CHM-151^S, minimum grade CL

Corequisites: None

This course provides a continuation of the study of the fundamental principles and laws of chemistry. Topics include kinetics, equilibrium, ionic and redox equations, acid-base theory, electrochemistry, thermodynamics, introduction to nuclear and organic chemistry, and complex ions. Upon completion, students should be able to demonstrate an understanding of chemical concepts as needed to pursue further study in chemistry and related professional fields.(1997 SU) This course has been approved to satisfy the following requirement(s):

- UGETC course for A.S. and A.S. Teacher Preparation
- Natural Science Gen. Ed. course for A.A. and A.A. Teacher Preparation
- Other Gen. Ed. and Premajor Elective course for A.E.
- Natural Sciences Gen. Ed. course for A.G.E.

CHM-251	Organic Chemistry I	4 (3-3)	Fall
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Prerequisites: CHM-152^S, minimum grade CL

Corequisites: None

This course provides a systematic study of the theories, principles, and techniques of organic chemistry. Topics include nomenclature, structure, properties, reactions, and mechanisms of hydrocarbons, alkyl halides, alcohols, and ethers further topics include isomerization, stereochemistry, and spectroscopy. Upon completion, students should be able to demonstrate an understanding of the fundamental concepts of covered organic topics as needed in CHM 252.(1997 SU) This course has been approved to satisfy the following requirement(s):

- Premajor and/or Elective course for A.A. and A.S.
- Other Gen. Ed. and Premajor Elective course for A.E.
- Natural Sciences Gen. Ed. course for A.G.E.

CHM-252	Organic Chemistry II	4 (3-3)	Spring
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Prerequisites: CHM-251^S, minimum grade CL

Corequisites: None

This course provides continuation of the systematic study of the theories, principles, and techniques of organic chemistry. Topics include nomenclature, structure, properties, reactions, and mechanisms of aromatics, aldehydes, ketones, carboxylic acids and derivatives, amines and heterocyclics multi-step synthesis will be emphasized. Upon completion, students should be able to demonstrate an understanding of organic concepts as needed to pursue further study in chemistry and related professional fields.(1997 SU) This course has been approved to satisfy the following requirement(s):

- Premajor and/or Elective course for A.A. and A.S.
- Other Gen. Ed. and Premajor Elective course for A.E.
- Natural Science Gen. Ed. course for A.G.E.

CIS INFORMATION SYSTEMS

CIS-110 **Introduction to Computers** **3 (2-2)** **Fall
Spring
Summer**

Prerequisites: None

Corequisites: None

This course introduces computer concepts, including fundamental functions and operations of the computer. Topics include identification of hardware components, basic computer operations, security issues, and use of software applications. Upon completion, students should be able to demonstrate an understanding of the role and function of computers and use the computer to solve problems.(2006 SP) This course has been approved to satisfy the following requirement(s):

- Mathematics Gen. Ed. course for A.A., A.A. Teacher Preparation, A.S., and A.S. Teacher Preparation
- Mathematics Gen. Ed. course for A.G.E.

CIS-111 **Basic PC Literacy** **2 (1-2)** **Fall
Spring
Summer**

Prerequisites: None

Corequisites: None

This course provides an overview of computer concepts. Emphasis is placed on the use of personal computers and software applications for personal and fundamental workplace use. Upon completion, students should be able to demonstrate basic personal computer skills.(2006 SP)

CIS-115 **Intro to Prog & Logic** **3 (2-3)** **Fall
Spring
Summer**

Prerequisites: MAT-003^S, BSP-4003^S, MAT-121^S, or MAT-171^S

Corequisites: None

This course introduces computer programming and problem solving in a structured program logic environment. Topics include language syntax, data types, program organization, problem solving methods, algorithm design, and logic control structures. Upon completion, students should be able to use top-down algorithm design and implement algorithmic solutions in a programming language. (2020 FA) This course has been approved to satisfy the following requirement(s):

- Mathematics Gen. Ed. course for A.A., A.A. Teacher Preparation, A.S., and A.S. Teacher Preparation
- Mathematics Gen. Ed. course for A.G.E.

CIV CIVIL ENGINEERING

CIV-111 **Soils and Foundations** **4 (2-4)** **Fall**

Prerequisites: EGR-251^S

Corequisites: None

This course presents an overview of soil as a construction material using both analysis and testing procedures. Topics include index properties, classification, stress analysis, compressibility, compaction, dewatering, excavation, stabilization, settlement, and foundations. Upon completion, students should be able to perform basic soil tests and analyze engineering properties of soil.(2013 FA)

CIV-221 Steel and Timber Design 3 (2-3) Fall
Prerequisites: EGR-251^S**Corequisites:** None

This course introduces the basic elements of steel and timber structures. Topics include strength of materials applications, the analysis and design of steel and timber beams, columns, and connections and concepts of structural detailing. Upon completion, students should be able to analyze, design, and draw simple plans using Computer Aided Drafting and Design software (CADD).(2013 FA)

CIV-222 Reinforced Concrete 3 (2-3) Spring
Prerequisites: EGR-251^S**Corequisites:** None

This course introduces the basic elements of reinforced concrete structures. Topics include analysis and design of reinforced concrete beams, slabs, columns, footings, and retaining walls. Upon completion, students should be able to analyze and design components of a structure using reinforced concrete and draw simple plans using Computer Aided Drafting and Design software (CADD).(2013 FA)

CJC CRIMINAL JUSTICE

**CJC-110 Basic Law Enforcement BLET 20 Fall
(10-30) Spring**
Prerequisites: None**Corequisites:** None

This course covers the basic skills and knowledge needed for entry-level employment as a law enforcement officer in North Carolina. Topics include those mandated by North Carolina Administration Code as essential for functioning in law enforcement. Upon completion, the student should be able to demonstrate competence in the topics required for the state comprehensive certification examination.(2019 FA)

CJC-111 Intro to Criminal Justice 3 (3-0) Fall
Prerequisites: None**Corequisites:** None

This course introduces the components and processes of the criminal justice system. Topics include history, structure, functions, and philosophy of the criminal justice system and their relationship to life in our society. Upon completion, students should be able to define and describe the major system components and their interrelationships and evaluate career options.(1997 SU) This course has been approved to satisfy the following requirement(s):

- Premajor and/or Elective course for A.A. and A.S.

CJC-112 Criminology 3 (3-0) Fall
Prerequisites: None**Corequisites:** None

This course introduces deviant behavior as it relates to criminal activity. Topics include theories of crime causation statistical analysis of criminal behavior past, present, and future social control initiatives and other related topics. Upon completion, students should be able to explain and discuss various theories of crime causation and societal response.(1997 SU)

COURSE DESCRIPTIONS

CJC-113 Juvenile Justice 3 (3-0) Fall**Prerequisites:** None**Corequisites:** None

This course covers the juvenile justice system and related juvenile issues. Topics include an overview of the juvenile justice system, treatment and prevention programs, special areas and laws unique to juveniles, and other related topics. Upon completion, students should be able to identify/discuss juvenile court structure/procedures, function and jurisdiction of juvenile agencies, processing/detention of juveniles, and case disposition.(1997 SU) Students who have successfully completed CJC-110, Basic Law Enforcement, may receive credit for CJC-113. This course has been approved to satisfy the following requirement(s):

- Premajor and/or Elective course for A.A. and A.S.

CJC-115 Crime Scene Photography 3 (2-3) Spring**Prerequisites:** None**Corequisites:** None

This course covers methodologies for photographing crime scenes including their application to forensic sciences, the legal system, and the proper use of digital cameras and accessories. Topics include digital cameras, operational functions required to properly photograph physical evidence and crime scenes, factors affecting admissibility of crime scene photographs, and methods and techniques specific to photographing crime scenes. Upon completion, students should be able to operate digital cameras using appropriate settings to control exposure and depth of field, properly compose various types of crime scene photographs, and use specialized techniques to properly photograph key items of evidence.(2016 FA)

CJC-120 Interviews/Interrogations 2 (1-2) Spring**Prerequisites:** None**Corequisites:** None

This course covers basic and special techniques employed in criminal justice interviews and interrogations. Emphasis is placed on the interview/interrogation process, including interpretation of verbal and physical behavior and legal perspectives. Upon completion, students should be able to conduct interviews/interrogations in a legal, efficient, and professional manner and obtain the truth from suspects, witnesses, and victims.(1997 SU) Students who have successfully completed CJC-110, Basic Law Enforcement, may receive credit for CJC-120.

CJC-121 Law Enforcement Operations 3 (3-0) Spring**Prerequisites:** None**Corequisites:** None

This course introduces fundamental law enforcement operations. Topics include the contemporary evolution of law enforcement operations and related issues. Upon completion, students should be able to explain theories, practices, and issues related to law enforcement operations.(1997 SU) This course has been approved to satisfy the following requirement(s):

- Premajor and/or Elective course for A.A. and A.S.

CJC-131 Criminal Law 3 (3-0) Spring**Prerequisites:** None**Corequisites:** None

This course covers the history/evolution/principles and contemporary applications of criminal law. Topics include sources of substantive law, classification of crimes, parties to crime, elements of crimes, matters of criminal responsibility, and other related topics. Upon completion, students should be able to discuss the sources of law and identify, interpret, and apply the appropriate statutes/elements.(1997 SU) Students who have successfully completed CJC-110, Basic Law Enforcement, may receive credit for CJC-131.

CJC-132 Court Procedure & Evidence 3 (3-0) Spring**Prerequisites:** None**Corequisites:** None

This course covers judicial structure/process/procedure from incident to disposition, kinds and degrees of evidence, and the rules governing admissibility of evidence in court. Topics include consideration of state and federal courts, arrest, search and seizure laws, exclusionary and statutory rules of evidence, and other related issues. Upon completion, students should be able to identify and discuss procedures necessary to establish a lawful arrest/search, proper judicial procedures, and the admissibility of evidence.(1997 SU) Students who have successfully completed CJC-110, Basic Law Enforcement, may receive credit for CJC-132.

CJC-141 Corrections 3 (3-0) Spring**Prerequisites:** None**Corequisites:** None

This course covers the history, major philosophies, components, and current practices and problems of the field of corrections. Topics include historical evolution, functions of the various components, alternatives to incarceration, treatment programs, inmate control, and other related topics. Upon completion, students should be able to explain the various components, processes, and functions of the correctional system.(1997 SU) This course has been approved to satisfy the following requirement(s):

- Premajor and/or Elective course for A.A. and A.S.

CJC-144 Crime Scene Processing 3 (2-3) Fall**Prerequisites:** None**Corequisites:** None

This course introduces the theories and practices of crime scene processing and investigating. Topics include legal considerations at the crime scene, processing indoor and outdoor scenes, recording, note taking, collection and preservation of evidence and submission to the crime laboratory. Upon completion, the student should be able to evaluate and search various crime scenes and demonstrate the appropriate techniques.(2000 SP)

CJC-146 Trace Evidence 3 (2-3) Fall**Prerequisites:** None**Corequisites:** None

This course provides a study of trace evidence as it relates to forensic science. Topics include collection, packaging, and preservation of trace evidence from crime scenes such as bombings, fires and other scenes. Upon completion, students should be able to demonstrate the fundamental concepts of trace evidence collection, preservation and submission to the crime laboratory.(2000 SP)

COURSE DESCRIPTIONS

CJC-212 Ethics & Comm Relations 3 (3-0) Summer**Prerequisites:** None**Corequisites:** None

This course covers ethical considerations and accepted standards applicable to criminal justice organizations and professionals. Topics include ethical systems social change, values, and norms cultural diversity citizen involvement in criminal justice issues and other related topics. Upon completion, students should be able to apply ethical considerations to the decision-making process in identifiable criminal justice situations.(1997 SU) This course has been approved to satisfy the following requirement(s):

- Premajor and/or Elective course for A.A. and A.S.

CJC-221 Investigative Principles 4 (3-2) Fall**Prerequisites:** None**Corequisites:** None

This course introduces the theories and fundamentals of the investigative process. Topics include crime scene/incident processing, information gathering techniques, collection/preservation of evidence, preparation of appropriate reports, court presentations, and other related topics. Upon completion, students should be able to identify, explain, and demonstrate the techniques of the investigative process, report preparation, and courtroom presentation.(1997 SU) Students who have successfully completed CJC-110, Basic Law Enforcement, may receive credit for CJC-221.

CJC-222 Criminalistics 3 (3-0) Spring**Prerequisites:** None**Corequisites:** None

This course covers the functions of the forensic laboratory and its relationship to successful criminal investigations and prosecutions. Topics include advanced crime scene processing, investigative techniques, current forensic technologies, and other related topics. Upon completion, students should be able to identify and collect relevant evidence at simulated crime scenes and request appropriate laboratory analysis of submitted evidence.(1997 SU)

CJC-225 Crisis Intervention 3 (3-0) Fall**Prerequisites:** None**Corequisites:** None

This course introduces critical incident intervention and management techniques as they apply to operational criminal justice practitioners. Emphasis is placed on the victim/offender situation as well as job-related high stress, dangerous, or problem-solving citizen contacts. Upon completion, students should be able to provide insightful analysis of emotional, violent, drug-induced, and other critical and/or stressful incidents that require field analysis and/or resolution.(1997 SU)

CJC-231	Constitutional Law	3 (3-0)	Fall
Prerequisites:	None		
Corequisites:	None		
The course covers the impact of the Constitution of the United States and its amendments on the criminal justice system. Topics include the structure of the Constitution and its amendments, court decisions pertinent to contemporary criminal justice issues, and other related topics. Upon completion, students should be able to identify/discuss the basic structure of the United States Constitution and the rights/procedures as interpreted by the courts.(1997 SU) Students who have successfully completed CJC-110, Basic Law Enforcement, may receive credit for CJC-231.			
CJC-232	Civil Liability	3 (3-0)	Summer
Prerequisites:	None		
Corequisites:	None		
This course covers liability issues for the criminal justice professional. Topics include civil rights violations, tort liability, employment issues, and other related topics. Upon completion, students should be able to explain civil trial procedures and discuss contemporary liability issues.(1997 SU)			
CJC-241	Community-Based Corrections	3 (3-0)	Spring
Prerequisites:	None		
Corequisites:	None		
This course covers programs for convicted offenders that are used both as alternatives to incarceration and in post-incarceration situations. Topics include offenders, diversion, house arrest, restitution, community service, probation and parole, including both public and private participation, and other related topics. Upon completion, students should be able to identify/discuss the various programs from the perspective of the criminal justice professional, the offender, and the community.(1997 SU)			
CJC-244	Footwear and Tire Imprint	3 (2-3)	Spring
Prerequisites:	None		
Corequisites:	None		
This course provides a study of the fundamental concepts of footwear and tire imprint evidence as related to forensic science. Topics include proper photographic recording, casting, recognition of wear patterns and imprint identification. Upon completion, the student should be able to recognize, record, photograph, and identify footwear and tire imprints.(2000 SP)			
CJC-245	Friction Ridge Analysis	3 (2-3)	Summer
Prerequisites:	None		
Corequisites:	None		
This course introduces the basic elements of fingerprint technology and techniques applicable to the criminal justice field. Topics include the history and meaning of fingerprints, pattern types and classification filing sequence, searching and referencing. Upon completion, the students should be able to discuss and demonstrate the fundamental techniques of basic fingerprint technology.(2000 SP)			

COURSE DESCRIPTIONS

CJC-246 Adv. Friction Ridge Analy 3 (2-3) Spring
Prerequisites: CJC-245^S**Corequisites:** None

This course introduces the theories and processes of advanced friction ridge analysis. Topics include evaluation of friction ridges, chart preparation, comparative analysis for values determination rendering proper identification, chemical enhancement and AFIS preparation and usage. Upon completion, students must show an understanding of proper procedures for friction ridge analysis through written testing and practical exercises.(2000 SP)

CMT CONSTRUCTION MANAGEMENT

CMT-210 Construction Management Fund 3 (3-0) Fall**Prerequisites:** None**Corequisites:** None

This course introduces the student to the fundamentals of effective supervision emphasizing professionalism through knowledge and applied skills. Topics include safety, planning and scheduling, contracts, problem-solving, communications, conflict resolution, recruitment, employment laws and regulations, leadership, motivation, teamwork, discipline, setting objectives, and training. Upon completion, students should be able to demonstrate the basic skills necessary to be successful as a supervisor in the construction industry.(2013 FA)

CMT-212 Total Safety Performance 3 (3-0) Spring**Prerequisites:** None**Corequisites:** CMT-210^S

This course covers the importance of managing safety and productivity equally by encouraging people to take individual responsibility for safety and health in the workplace. Topics include safety management, controlling construction hazards, communicating and enforcing policies, OSHA compliance, personal responsibility and accountability, safety planning, training, and personal protective equipment. Upon completion, the student should be able to properly supervise safety at a construction jobsite and qualify for OSHA Training Certification.(2004 SP)

COM COMMUNICATION

**COM-110 Introduction to Communication 3 (3-0) Fall
Spring
Summer**
Prerequisites: None**Corequisites:** None

This course provides an overview of the basic concepts of communication and the skills necessary to communicate in various contexts. Emphasis is placed on communication theories and techniques used in interpersonal group, public, intercultural, and mass communication situations. Upon completion, students should be able to explain and illustrate the forms and purposes of human communication in a variety of contexts.(1997 SU) This course has been approved to satisfy the following requirement(s):

- Communication Gen. Ed. course for A.A., A.A. Teacher Preparation, A.S., and A.S. Teacher Preparation
- Other Gen. Ed. and Premajor Elective Hours course for A.E.
- Communication course for A.A.S. and A.G.E.

COM-120	Intro Interpersonal Com	3 (3-0)	Fall Spring Summer
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Prerequisites: None

Corequisites: None

This course introduces the practices and principles of interpersonal communication in both dyadic and group settings. Emphasis is placed on the communication process, perception, listening, self-disclosure, speech apprehension, ethics, nonverbal communication, conflict, power, and dysfunctional communication relationships. Upon completion, students should be able to demonstrate interpersonal communication skills, apply basic principles of group discussion, and manage conflict in interpersonal communication situations.(2007 FA) This course has been approved to satisfy the following requirement(s):

- UGETC course for A.A., A.A. Teacher Preparation, A.F.A., and A.S.
- Communication course for A.A.S. and A.G.E.

COM-140	Intro Intercultural Com	3 (3-0)	Fall
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Prerequisites: None

Corequisites: None

This course introduces techniques of cultural research, definitions, functions, characteristics, and impacts of cultural differences in public address. Emphasis is placed on how diverse backgrounds influence the communication act and how cultural perceptions and experiences determine how one sends and receives messages. Upon completion, students should be able to demonstrate an understanding of the principles and skills needed to become effective in communicating outside one's primary culture.(2009 SP) This course has been approved to satisfy the following requirement(s):

- Communication Gen. Ed. course for A.A., A.A. Teacher Preparation, A.S., and A.S. Teacher Preparation
- Humanities/Fine Arts course for A.A.S. and A.G.E.

COM-150	Intro. to Mass Comm.	3 (3-0)	AND
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Prerequisites: ENG-111^S

Corequisites: None

This course introduces print and electronic media and the new information technologies in terms of communication theory and as economic, political, and social institutions. Topics include the nature, history, functions, and responsibilities of mass communication industries in a global environment and their role and impact in American society. Upon completion, students should be able to demonstrate awareness of the pervasive nature of mass media and how media operate in an advanced post-industrial society.(2010 SP) This course has been approved to satisfy the following requirement(s):

- Premajor and/or Elective course for A.A. and A.S.

COURSE DESCRIPTIONS

COM-231	Public Speaking	3 (3-0)	Fall Spring Summer
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Prerequisites: None

Corequisites: None

This course provides instruction and experience in preparation and delivery of speeches within a public setting and group discussion. Emphasis is placed on research, preparation, delivery, and evaluation of informative, persuasive, and special occasion public speaking. Upon completion, students should be able to prepare and deliver well-organized speeches and participate in group discussion with appropriate audiovisual support.(1997 SU) This course has been approved to satisfy the following requirement(s):

- UGETC course for A.A., A.A. Teacher Preparation, A.E., A.F.A., A.S., and A.S. Teacher Preparation
- Communication course for A.A.S.

COS COSMETOLOGY

COS-111	Cosmetology Concepts I	4 (4-0)	Fall Spring
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Prerequisites: ENG-002^L or BSP-4002^L

Corequisites: COS-112^S

This course introduces basic cosmetology concepts. Topics include safety, first aid, sanitation, bacteriology, anatomy, diseases and disorders, hygiene, product knowledge, chemistry, ethics, manicures, and other related topics. Upon completion, students should be able to safely and competently apply cosmetology concepts in the salon setting.(1997 SU)

COS-112	Salon I	8 (0-24)	Fall Spring
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Prerequisites: ENG-002^L or BSP-4002^L

Corequisites: COS-111^S

This course introduces basic salon services. Topics include scalp treatments, shampooing, rinsing, hair color, design, haircutting, permanent waving, pressing, relaxing, wigs, and other related topics. Upon completion, students should be able to safely and competently demonstrate salon services.(1997 SU)

COS-113	Cosmetology Concepts II	4 (4-0)	Fall Spring
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Prerequisites: COS-111^S, minimum grade CL, and COS-112^S

Corequisites: COS-114^S

This course covers more comprehensive cosmetology concepts. Topics include safety, product knowledge, chemistry, manicuring, chemical restructuring, and hair coloring. Upon completion, students should be able to safely and competently apply these cosmetology concepts in the salon setting.(2016 FA)

COS-114	Salon II	8 (0-24)	Fall Spring
Prerequisites: COS-111 ^S , minimum grade CL, and COS-112 ^S Corequisites: COS-113 ^S This course provides experience in a simulated salon setting. Topics include basic skin care, manicuring, nail application, scalp treatments, shampooing, rinsing, hair color, design, haircutting, chemical restructuring, pressing, wigs, and other related topics. Upon completion, students should be able to safely and competently demonstrate these salon services.(2016 FA)			
COS-115	Cosmetology Concepts III	4 (4-0)	Summer
Prerequisites: COS-111 ^S , minimum grade CL, and COS-112 ^S Corequisites: COS-116 ^L This course covers more comprehensive cosmetology concepts. Topics include safety, product knowledge, salon management, salesmanship, skin care, electricity/light therapy, wigs, thermal hair styling, lash and brow tinting, superfluous hair removal, and other related topics. Upon completion, students should be able to safely and competently apply these cosmetology concepts in the salon setting. (2016 FA)			
COS-116	Salon III	4 (0-12)	Summer
Prerequisites: COS-111 ^S , minimum grade CL, and COS-112 ^S Corequisites: COS-115 ^L This course provides comprehensive experience in a simulated salon setting. Emphasis is placed on intermediate-level of skin care, manicuring, scalp treatments, shampooing, hair color, design, haircutting, chemical restructuring, pressing, and other related topics. Upon completion, students should be able to safely and competently demonstrate these salon services.(2016 FA)			
COS-117	Cosmetology Concepts IV	2 (2-0)	Fall Spring
Prerequisites: COS-111 ^S , minimum grade CL, and COS-112 ^S Corequisites: COS-118 ^L This course covers advanced cosmetology concepts. Topics include chemistry and hair structure, advanced cutting and design, and an overview of all cosmetology concepts in preparation for the licensing examination. Upon completion, students should be able to demonstrate an understanding of these cosmetology concepts and meet program completion requirements.(2016 FA)			
COS-118	Salon IV	7 (0-21)	Fall Spring
Prerequisites: COS-111 ^S , minimum grade CL, and COS-112 ^S Corequisites: COS-117 ^L This course provides advanced experience in a simulated salon setting. Emphasis is placed on efficient and competent delivery of all salon services in preparation for the licensing examination and employment. Upon completion, students should be able to demonstrate competence in program requirements and the areas covered on the Cosmetology Licensing Examination and meet entry-level employment requirements.(2016 FA)			

COURSE DESCRIPTIONS

COS-223	Contemp Hair Coloring	2 (1-3)	Fall Spring
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Prerequisites: COS-111^S and COS-112^S

Corequisites: None

This course covers basic color concepts, hair coloring problems, and application techniques. Topics include color theory, terminology, contemporary techniques, product knowledge, and other related topics. Upon completion, students should be able to identify a clients color needs and safely and competently perform color applications and correct problems.(1998 FA)

CSC COMPUTER SCIENCE

CSC-118	Swift Programming I	3 (2-3)	Fall
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Prerequisites: None

Corequisites: None

This course introduces the development of iOS applications and Apple applications using Swift programming language. Emphasis is placed on syntax, object-oriented principles, memory management, and functional concepts of Swift programming. Upon completion, students should be able to develop fully functional iOS and Apple applications using Swift programming language.(2018 SU)

CSC-134	C++ Programming	3 (2-3)	Fall Summer
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Prerequisites: MAT-003^L or BSP-4003^L

Corequisites: None

This course introduces computer programming using the C++ programming language with object-oriented programming principles. Emphasis is placed on event-driven programming methods, including creating and manipulating objects, classes, and using object-oriented tools such as the class debugger. Upon completion, students should be able to design, code, test and debug at a beginning level.(2006 SP) This course has been approved to satisfy the following requirement(s):

- Premajor and/or Elective course for A.A. and A.S.
- Other Gen. Ed. and Premajor Elective Hours course for A.E.

CSC-139	Visual BASIC Programming	3 (2-3)	AND
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Prerequisites: MAT-003^L or BSP-4003^L

Corequisites: None

This course introduces computer programming using the Visual BASIC programming language with object-oriented programming principles. Emphasis is placed on event-driven programming methods, including creating and manipulating objects, classes, and using object-oriented tools such as the class debugger. Upon completion, students should be able to design, code, test and debug at a beginning level.(2006 SP) This course has been approved to satisfy the following requirement(s):

- Premajor and/or Elective course for A.A. and A.S.

CSC-151 JAVA Programming 3 (2-3) AND
Prerequisites: MAT-003^L or BSP-4003^L
Corequisites: None

This course introduces computer programming using the JAVA programming language with object-oriented programming principles. Emphasis is placed on event-driven programming methods, including creating and manipulating objects, classes, and using object-oriented tools such as the class debugger. Upon completion students should be able to design, code, test, debug JAVA language programs.(2006 SP) This course has been approved to satisfy the following requirement(s):

- Premajor and/or Elective course for A.A. and A.S.
- Other Gen. Ed. and Premajor Elective Hours course for A.E.

CSC-153 C# Programming 3 (2-3) Spring
Prerequisites: MAT-003^L or BSP-4003^L
Corequisites: None

This course introduces computer programming using the C# programming language with object-oriented programming principles. Emphasis is placed on event-driven programming methods, including creating and manipulating objects, classes, and using object-oriented tools such as the class debugger. Upon completion, students should be able to design, code, test, debug, and implement objects using the appropriate environment at the beginning level.(2006 SP)

CSC-218 Swift Programming II 3 (2-3) Spring
Prerequisites: CSC-118^S
Corequisites: None

This course introduces advanced iOS application development using the Swift programming language. Emphasis is placed on navigation, data manipulation, web services, prototyping, debugging, and project planning. Upon completion, students should be able to develop advanced multifunctional iOS and Apple applications using the Swift programming language.(2018 SU)

CSC-253 Advanced C# Programming 3 (2-3) Fall
Prerequisites: CSC-153^S
Corequisites: None

This course is a continuation of CSC 153 using the C# programming language with object-oriented programming principles. Emphasis is placed on event-driven programming methods, including creating and manipulating objects, classes, and using object-oriented tools such as the class debugger. Upon completion, students should be able to design, code, test, debug, and implement objects using the appropriate environment.(2006 SP)

CSC-289 Programming Capstone Project 3 (1-4) Spring
Prerequisites: CTI-110^S, CTI-120^S, and CTS-115^S
Corequisites: None

This course provides an opportunity to complete a significant programming project from the design phase through implementation with minimal instructor support. Emphasis is placed on project definition, testing, presentation, and implementation. Upon completion, students should be able to complete a project from the definition phase through implementation.(2016 FA)

CST CONSTRUCTION

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|---|------------------------------|----------------|---------------|
| CST-111 | Construction I | 4 (3-3) | Fall |
| Prerequisites: None | | | |
| Corequisites: None | | | |
| This course covers standard and alternative building methods to include wall framing. Topics include safety and footings, foundations, floor framing systems, and wall framing systems commonly used in the construction industry. Upon completion, students should be able to safely erect all framing necessary to begin roof framing.(1997 SU) | | | |
| | | | |
| CST-112 | Construction II | 4 (3-3) | Spring |
| Prerequisites: CST-111 ^S | | | |
| Corequisites: None | | | |
| This course covers building methods and materials used to dry-in a building. Topics include safety, ceiling/roof framing applications, roof finishes, windows, and exterior doors. Upon completion, students should be able to safely erect different roof types and properly install windows and exterior doors, roofing, and exterior finish materials.(1997 SU) | | | |
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| CST-221 | Statics/Structures | 4 (3-3) | Summer |
| Prerequisites: ARC-112 ^S or CST-112 ^S ; MAT-110 ^S , MAT-121 ^S , or MAT-171 ^S | | | |
| Corequisites: None | | | |
| This course covers the principles of statics and strength of materials as applied to structural building components. Topics include forces on columns, beams, girders, and footings and connection points when timber, steel, and concrete members are used. Upon completion, students should be able to accurately analyze load conditions present in structural members.(2016 SP) | | | |
| | | | |
| CST-231 | Soils & Site Work | 4 (3-2) | Fall |
| Prerequisites: MAT-121 ^S or MAT-171 ^S | | | |
| Corequisites: None | | | |
| This course covers site conditions and soil types and their physical properties. Topics include site preparation, access, mechanical analysis, classification of soils, and hydrostatics of groundwater. Upon completion, students should be able to adequately prepare a building site according to plans and specifications.(2014 FA) | | | |
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| CST-241 | Planning/Estimating I | 3 (2-2) | Spring |
| Prerequisites: BPR-130 ^S or MAT-121 ^S or MAT-171 ^S | | | |
| Corequisites: None | | | |
| This course covers the procedures involved in planning and estimating a construction/building project. Topics include performing quantity take-offs of materials necessary for a building project. Upon completion, students should be able to accurately complete a take-off of materials and equipment needs involved in a construction project.(2014 FA) | | | |

CTI COMPUTER TECH INTEGRATION

CTI-110 **Web, Pgm, & Db Foundation** **3 (2-2)** **Fall
Spring**

Prerequisites: None

Corequisites: None

This course covers the introduction of the tools and resources available to students in programming, mark-up language and services on the Internet. Topics include standard mark-up language Internet services, creating web pages, using search engines, file transfer programs and database design and creation with DBMS products. Upon completion students should be able to demonstrate knowledge of programming tools, deploy a web-site with mark-up tools, and create a simple database table.(2009 FA)

CTI-120 **Network & Sec Foundation** **3 (2-2)** **Fall
Spring**

Prerequisites: None

Corequisites: None

This course introduces students to the Network concepts, including networking terminology and protocols, local and wide area networks, and network standards. Emphasis is placed on securing information systems and the various implementation policies. Upon completion, students should be able to perform basic tasks related to networking mathematics, terminology, media and protocols. (2009 FA)

CTI-140 **Virtualization Concepts** **3 (1-4)** **AND**

Prerequisites: None

Corequisites: None

This course introduces operating system virtualization. Emphasis is placed on virtualization terminology, virtual machine storage, virtual networking and access control. Upon completion, students should be able to perform tasks related to installation, configuration and management of virtual machines.(2012 SU)

CTS COMPUTER INFORMATION TECH

CTS-115 **Info Sys Business Concepts** **3 (3-0)** **Spring**

Prerequisites: None

Corequisites: None

The course introduces the role of IT in managing business processes and the need for business process and IT alignment. Emphasis is placed on industry need for understanding business challenges and developing/managing information systems to contribute to the decision making process based on these challenges. Upon completion, students should be able to demonstrate knowledge of the 'hybrid business manager' and the potential offered by new technology and systems. (2006 SP) This course has been approved to satisfy the following requirement(s):

- Premajor and/or Elective course for A.A. and A.S.

CUL CULINARY

CUL-110	Sanitation & Safety	2 (2-0)	Fall Spring Summer
Prerequisites: None Corequisites: None This course introduces the basic principles of sanitation and safety relative to the hospitality industry. Topics include personal hygiene, sanitation and safety regulations, use and care of equipment, the principles of food-borne illness, and other related topics. Upon completion, students should be able to demonstrate an understanding of the content necessary for successful completion of a nationally recognized food/safety/sanitation exam.(2011 FA)			
CUL-110A	Sanitation & Safety Lab	1 (0-2)	Fall Spring Summer
Prerequisites: None Corequisites: CUL-110 ^S This course provides a laboratory experience for enhancing student skills in the basic principles of sanitation and safety. Emphasis is placed on personal hygiene, sanitation and safety regulations, use and care of equipment, the principles of food-borne illness, and other related topics. Upon completion, students should be able to demonstrate practical applications of sanitation and safety procedures in the hospitality industry.(2011 FA)			
CUL-112	Nutrition for Foodservice	3 (3-0)	Spring
Prerequisites: None Corequisites: None This course covers the principles of nutrition and its relationship to the foodservice industry. Topics include personal nutrition fundamentals, weight management, exercise, nutritional adaptation/analysis of recipes/menus, healthy cooking techniques and marketing nutrition in a foodservice operation. Upon completion, students should be able to apply basic nutritional concepts to food preparation and selection.(2011 FA)			
CUL-120	Purchasing	2 (2-0)	Fall Spring
Prerequisites: MAT-003 ^L or BSP-4003 ^L Corequisites: None This course covers purchasing for foodservice operations. Emphasis is placed on yield tests, procurement, negotiating, inventory control, product specification, purchasing ethics, vendor relationships, food product specifications and software applications. Upon completion, students should be able to apply effective purchasing techniques based on the end-use of the product.(2011 FA)			

CUL-130	Menu Design	2 (2-0)	Summer
Prerequisites:	None		
Corequisites:	None		
This course introduces menu design and its relationship to foodservice operations. Topics include layout, marketing, concept development, dietary concerns, product utilization, target consumers and trends. Upon completion, students should be able to design, create and produce menus for a variety of foodservice settings.(2011 FA)			
CUL-135	Food & Beverage Service	2 (2-0)	Fall Spring
Prerequisites:	None		
Corequisites:	CUL-135A ^L		
This course is designed to cover the practical skills and knowledge necessary for effective food and beverage service in a variety of settings. Topics include greeting/service of guests, dining room set-up, profitability, menu sales and merchandising, service styles and reservations. Upon completion, students should be able to demonstrate competence in human relations and the skills required in the service of foods and beverages.(2011 FA)			
CUL-135A	Food & Beverage Serv Lab	1 (0-2)	Fall Spring
Prerequisites:	None		
Corequisites:	CUL-135 ^S		
This course provides a laboratory experience for enhancing student skills in effective food and beverage service. Emphasis is placed on practical experiences including greeting/service of guests, dining room set-up, profitability, menu sales and merchandising, service styles and reservations. Upon completion, students should be able to demonstrate practical applications of human relations and the skills required in the service of foods and beverages.(2011 FA)			
CUL-140	Culinary Skills I	5 (2-6)	Fall Spring
Prerequisites:	MAT-003 ^L or BSP-4003 ^L		
Corequisites:	CUL-110 ^S		
This course introduces the fundamental concepts, skills and techniques in basic cookery, and moist, dry and combination heat. Emphasis is placed on recipe conversion, measurements, terminology, classical knife cuts, safe food/equipment handling, flavorings/seasonings, stocks/sauces/soups, and related topics. Upon completion, students should be able to exhibit the basic cooking skills used in the foodservice industry.(2011 FA)			
CUL-160	Baking I	3 (1-4)	Fall Spring
Prerequisites:	MAT-003 ^L or BSP-4003 ^L		
Corequisites:	CUL-110 ^S		
This course covers basic ingredients, techniques, weights and measures, baking terminology and formula calculations. Topics include yeast/chemically leavened products, laminated doughs, pastry dough batter, pies/tarts, meringue, custard, cakes and cookies, icings, glazes and basic sauces. Upon completion, students should be able to demonstrate proper scaling and measurement techniques, and prepare and evaluate a variety of bakery products.(2011 FA)			

COURSE DESCRIPTIONS

CUL-170	Garde Manger I	3 (1-4)	Fall Spring Summer
Prerequisites: MAT-003 ^L or BSP-4003 ^L Corequisites: CUL-110 ^S This course introduces basic cold food preparation techniques and pantry production. Topics include salads, sandwiches, appetizers, dressings, basic garnishes, cheeses, cold sauces, and related food items. Upon completion, students should be able to present a cold food display and exhibit an understanding of the cold kitchen and its related terminology.(2011 FA)			
CUL-214	Wine Appreciation	2 (1-2)	Fall
Prerequisites: ENG-002 ^L or BSP-4002 ^L Corequisites: None This course provides an introduction to information about wine from all the major wine producing regions. Emphasis is placed on the history of wine, production, characteristics, wine list development, laws, purchasing and storing requirements. Upon completion, students should be able to evaluate varietal wines and basic food pairings.(2011 FA)			
CUL-230	Global Cuisines	5 (1-8)	Spring
Prerequisites: CUL-110 ^S , CUL-110A ^L , CUL-140 ^S , CUL-160 ^L , CUL-240 ^L Corequisites: None This course provides practical experience in the planning, preparation, and presentation of representative foods from a variety of world cuisines. Emphasis is placed on indigenous ingredients and customs, nutritional concerns, and cooking techniques. Upon completion, students should be able to research and execute a variety of international and domestic menus.(2011 FA)			
CUL-240	Culinary Skills II	5 (1-8)	Fall
Prerequisites: CUL-110 ^S , CUL-110A ^L , CUL-140 ^S ; ENG-002 ^L or BSP-4002 ^L Corequisites: None This course is designed to further students' knowledge of the fundamental concepts, skills, and techniques involved in basic cookery. Emphasis is placed on meat identification/fabrication, butchery and cooking techniques/methods appropriate vegetable/starch accompaniments compound sauces plate presentation breakfast cookery and quantity food preparation. Upon completion, students should be able to plan, execute, and successfully serve entrees with complementary side items.(2017 FA)			
CUL-245	Contemporary Cuisines	5 (1-8)	Spring
Prerequisites: CUL-110 ^S , CUL-110A ^L , CUL-140 ^S ; ENG-002 ^L or BSP-4002 ^L Corequisites: None This course is designed to further students' knowledge in ingredients, weights and measures, baking terminology and formula calculation. Topics include classical desserts, frozen desserts, cake and torte production, decorating and icings/glazes, dessert plating and presentation. Upon completion, students should be able to demonstrate pastry preparation, plating, and dessert buffet production skills.(2011 FA)			

CUL-260 Baking II 3 (1-4) Fall
Prerequisites: CUL-110^S, CUL-110A^L, CUL-160^S; ENG-002^L or BSP-4002^L
Corequisites: None

This course is designed to further students' knowledge in ingredients, weights and measures, baking terminology and formula calculation. Topics include classical desserts, frozen desserts, cake and torte production, decorating and icings/glazes, dessert plating and presentation. Upon completion, students should be able to demonstrate pastry preparation, plating, and dessert buffet production skills.(2011 FA)

DBA DATABASE MANAGEMENT TECH

DBA-110 Database Concepts 3 (2-3) Fall
Prerequisites: None

Corequisites: None

This course introduces database design and creation using a DBMS product. Emphasis is placed on data dictionaries, normalization, data integrity, data modeling, and creation of simple tables, queries, reports, and forms. Upon completion, students should be able to design and implement normalized database structures by creating simple database tables, queries, reports, and forms.(2006 SP)

DBA-120 Database Programming I 3 (2-2) Fall
Prerequisites: None

Corequisites: None

This course is designed to develop SQL programming proficiency. Emphasis is placed on data definition, data manipulation, and data control statements as well as on report generation. Upon completion, students should be able to write programs which create, update, and produce reports.(2006 SP)

DBA-221 SQL Server DB Prog II 3 (2-2) Spring
Prerequisites: DBA-120^S
Corequisites: None

This course is designed to enhance programming skills developed in DBA 120. Topics include application development with GUI front-ends and embedded programming. Upon completion, students should be able to develop a SQL Server DBMS application which includes a GUI front-end and report generation.(2006 SP)

DFT DRAFTING

DFT-119 Basic CAD 2 (1-2) AND
Prerequisites: None

Corequisites: None

This course introduces computer-aided drafting software for specific technologies to non-drafting majors. Emphasis is placed on understanding the software command structure and drafting standards for specific technical fields. Upon completion, students should be able to create and plot basic drawings.(1997 SU)

COURSE DESCRIPTIONS

DFT-170 Engineering Graphics 3 (2-2) AND**Prerequisites:** None**Corequisites:** None

This course introduces basic engineering graphics skills and applications. Topics include sketching, selection and use of current methods and tools, and the use of engineering graphics applications. Upon completion, students should be able to demonstrate an understanding of basic engineering graphics principles and practices.(2005 SP) This course has been approved to satisfy the following requirement(s):

- Premajor and/or Elective course for A.A. and A.S.
- Other Gen. Ed. and Premajor Elective Hours course for A.E.

DME DIGITAL MEDIA TECHNOLOGY**DME-110 Intro to Digital Media 3 (2-2) Fall****Prerequisites:** None**Corequisites:** None

This course introduces students to key concepts, technologies, and issues related to digital media. Topics include emerging standards, key technologies and related design issues, terminology, media formats, career paths, and ethical issues. Upon completion, students should be able to demonstrate the various media formats that are used in digital media technology.(2004 FA)

DME-115 Graphic Design Tools 3 (2-2) Summer**Prerequisites:** None**Corequisites:** None

This course provides students with an introduction to creative expression and art/design techniques in a digital environment. Emphasis is placed on designing, creating, editing and integrating visual components consisting of bit-mapped and vector-based images, drawings, banners, text, simple animations, and multiple layers. Upon completion, students should be able to design and produce a range of visual products using digital processing techniques.(2023SP)

DME-120 Intro to Multimedia Appl 3 (2-2) Summer**Prerequisites:** None**Corequisites:** None

This course introduces storyboarding and multimedia application design. Topics include vector and bit-mapped graphics, interactive multimedia interfaces, layering techniques, image and animation libraries, and scripting. Upon completion, students should be able to produce basic high-quality interactive multimedia applications.(2019 FA)

DME-130 Digital Animation I 3 (2-2) Fall**Prerequisites:** DME-110^S**Corequisites:** None

This course introduces concepts for planning and developing animation sequences. Emphasis will be placed on review of digital animation concepts and exploration of various animation software packages. Upon completion, students should be able to produce simple animations.(2004 FA)

DME-140 Intro to Audio/Video Media 3 (2-3) AND**Prerequisites:** None**Corequisites:** None

This course is designed to teach students how to manipulate digital and audio content for multimedia applications. Topics include format conversion and a review of current technologies and digital formats. Upon completion, students should be able to modify existing audio and video content to meet a range of production requirements associated with digital media applications.(2023 SP)

DME-215 Adv Graphic Design Tools 3 (2-3) AND**Prerequisites:** DME-115^S**Corequisites:** None

This course provides students with advanced design techniques in a digital environment. Emphasis is placed on understanding principles of design and typography, and applying them effectively in projects. Upon completion, students should be able to design and produce a range of visual products using advanced digital design techniques and principles.(2023 SP)

DME-285 Systems Project 3 (2-2) Spring**Prerequisites:** DME-120^S, DME-130^S**Corequisites:** None

This course provides an opportunity to complete a significant digital media project from the design phase through implementation with minimal instructor support. Emphasis is placed on project definition, testing, presentation, and implementation. Upon completion, students should be able to complete, maintain and implement a digital media project.(2004 FA)

DRA DRAMA/THEATRE

DRA-111 Theatre Appreciation 3 (3-0) AND**Prerequisites:** None**Corequisites:** None

This course provides a study of the art, craft, and business of the theatre. Emphasis is placed on the audience's appreciation of the work of the playwright, director, actor, designer, producer, and critic. Upon completion, students should be able to demonstrate a vocabulary of theatre terms and to recognize the contributions of various theatre artists.(1997 SU) This course has been approved to satisfy the following requirement(s):

- UGETC course for A.A., A.A. Teacher Preparation, A.F.A., A.S., and A.S. Teacher Preparation
- Humanities/Fine Arts Gen. Ed. course for A.A.S. and A.G.E.

DRA-118 Script Analysis 3 (3-0) Fall**Prerequisites:** None**Corequisites:** None

This course provides a foundational study of the structure of plays for the theatre. Emphasis is placed on the study of plays from the earliest forms of theatre to the present, analyzed through elements of the dramatic text including character, action, genre, language, spectacle, structure, style and theme. Upon completion, students should be able to analyze plays for academic use, as well as for theatrical productions as actors, designers and/or directors.(2024 FA)

COURSE DESCRIPTIONS

DRA-120 Voice for Performance 3 (3-0) Spring**Prerequisites:** None**Corequisites:** None

This course provides guided practice in the proper production of speech for the theatre. Emphasis is placed on improving speech, including breathing, articulation, pronunciation, and other vocal variables. Upon completion, students should be able to demonstrate effective theatrical speech.(1997 SU) This course has been approved to satisfy the following requirement(s):

- Premajor and/or Elective course for A.A. and A.S.

DRA-126 Storytelling 3 (3-0) AND**Prerequisites:** None**Corequisites:** None

This course introduces the art of storytelling and the oral traditions of folk literature. Topics include the history of storytelling, its value and purpose, techniques of the storyteller, and methods of collecting verbal art. Upon completion, students should be able to present and discuss critically stories from the world's repertory of traditional lore.(1997 SU) This course has been approved to satisfy the following requirement(s):

- Humanities/Fine Arts Gen. Ed. course for A.A., A.A. Teacher Preparation and A.S.
- Humanities/Fine Arts Gen. Ed. course for A.A.S. and A.G.E.

DRA-128 Children's Theatre 3 (3-0) Spring**Prerequisites:** DRA-130^L**Corequisites:** None

This course introduces the philosophy and practice involved in producing plays for young audiences. Topics include the selection of age-appropriate scripts and the special demands placed on directors, actors, designers, and educators in meeting the needs of young audiences. Upon completion, students should be able to present and critically discuss productions for children.(1997 SU) This course has been approved to satisfy the following requirement(s):

- Premajor and/or Elective course for A.A. and A.S.

DRA-130 Acting I 3 (0-6) Fall**Prerequisites:** None**Corequisites:** None

This course provides an applied study of the actor's craft. Topics include role analysis, training the voice, and body concentration, discipline, and self-evaluation. Upon completion, students should be able to explore their creativity in an acting ensemble.(1997 SU) This course has been approved to satisfy the following requirement(s):

- Premajor and/or Elective course for A.A. and A.S.

DRA-131 Acting II 3 (0-6) Fall**Prerequisites:** DRA-130^L**Corequisites:** None

This course provides additional hands-on practice in the actor's craft. Emphasis is placed on further analysis, characterization, growth, and training for acting competence. Upon completion, students should be able to explore their creativity in an acting ensemble.(1997 SU) This course has been approved to satisfy the following requirement(s):

- Premajor and/or Elective course for A.A. and A.S.

DRA-135 Acting for the Camera I 3 (1-4) Spring**Prerequisites:** DRA-130^L**Corequisites:** None

This course provides an applied study of the camera actor's craft. Topics include commercial, dramatic, and print performance styles. Upon completion, students should be able to explore their creativity in on-camera performance.(1997 SU) This course has been approved to satisfy the following requirement(s):

- Premajor and/or Elective course for A.A. and A.S.

DRA-140 Stagecraft I 3 (0-6) Fall**Prerequisites:** None**Corequisites:** None

This course introduces the theory and basic construction of stage scenery and properties. Topics include stage carpentry, scene painting, stage electrics, properties, and backstage organization. Upon completion, students should be able to pursue vocational and avocational roles in technical theatre.(1997 SU) This course has been approved to satisfy the following requirement(s):

- Premajor and/or Elective course for A.A. and A.S.

DRA-141 Stagecraft II 3 (0-6) Spring**Prerequisites:** DRA-140^S**Corequisites:** None

This course provides additional hands-on practice in the elements of stagecraft. Emphasis is placed on the design and implementation of the arts and crafts of technical theatre. Upon completion, students should be able to pursue vocational or avocational roles in technical theatre.(1997 SU) This course has been approved to satisfy the following requirement(s):

- Premajor and/or Elective course for A.A. and A.S.

DRA-144 Introduction to Stage Design 2 (3-2) Spring**Prerequisites:** None**Corequisites:** None

This course provides a basic foundational study of costume, scenery, lighting and sound design for live entertainment. Emphasis is placed on basic techniques, language, methods and practice employed in live entertainment design. Upon completion, students should be able to practice all effective and creative aspects of live entertainment design.(2024 FA)

DRA-145 Stage Make-Up 2 (1-2) AND**Prerequisites:** None**Corequisites:** None

This course covers the research, design, selection of materials, and application of stage make-up, prosthetics, wigs, and hairpieces. Emphasis is placed on the development of techniques, style, and presentation of the finished make-up. Upon completion, students should be able to create and apply make-up, prosthetics, and hairpieces.(1997 SU) This course has been approved to satisfy the following requirement(s):

- Premajor and/or Elective course for A.A. and A.S.

COURSE DESCRIPTIONS

DRA-170 Play Production I 3 (0-9) Spring**Prerequisites:** None**Corequisites:** None

This course provides an applied laboratory study of the processes involved in the production of a play. Topics include fundamental practices, principles, and techniques associated with producing plays of various periods and styles. Upon completion, students should be able to participate in an assigned position with a college theatre production.(1997 SU) This course has been approved to satisfy the following requirement(s):

- Premajor and/or Elective course for A.A. and A.S.

DRA-171 Play Production II 3 (0-9) Fall**Prerequisites:** DRA-170^S**Corequisites:** None

This course provides an applied laboratory study of the processes involved in the production of a play. Topics include fundamental practices, principles, and techniques associated with producing plays of various periods and styles. Upon completion, students should be able to participate in an assigned position with a college theatre production.(1997 SU) This course has been approved to satisfy the following requirement(s):

- Premajor and/or Elective course for A.A. and A.S.

DRA-211 Theatre History I 3 (3-0) Fall**Prerequisites:** None**Corequisites:** None

This course covers the development of theatre from its origin to the closing of the British theatre in 1642. Topics include the history, aesthetics, and representative dramatic literature of the period. Upon completion, students should be able to trace the evolution of theatre and recognize the styles and types of world drama.(1997 SU) This course has been approved to satisfy the following requirement(s):

- Humanities/Fine Arts Gen. Ed. course for A.A. and A.S.

DRA-212 Theatre History II 3 (3-0) Spring**Prerequisites:** None**Corequisites:** None

This course covers the development of theatre from 1660 through the diverse influences which shaped the theatre of the twentieth century. Topics include the history, aesthetics, and representative dramatic literature of the period. Upon completion, students should be able to trace the evolution of theatre and recognize the styles and types of world drama.(1997 SU) This course has been approved to satisfy the following requirement(s):

- Humanities/Fine Arts Gen. Ed. course for A.A. and A.S.

DRA-240 Lighting for the Theatre 3 (2-2) Spring**Prerequisites:** None**Corequisites:** None

This course is an applied study of theatre lighting and is designed to train theatre technicians. Emphasis is placed on lighting technology including the mechanics of lighting and light control equipment by practical work with lighting equipment. Upon completion, students should be able to demonstrate competence with lighting equipment.(1997 SU) This course has been approved to satisfy the following requirement(s):

- Premajor and/or Elective course for A.A. and A.S.

DRA-270 Play Production III 3 (0-9) Spring**Prerequisites:** DRA-171**Corequisites:** None

This course is an applied study of theatre lighting and is designed to train theatre technicians. Emphasis is placed on lighting technology including the mechanics of lighting and light control equipment by practical work with lighting equipment. Upon completion, students should be able to demonstrate competence with lighting equipment.(1997 SU) This course has been approved to satisfy the following requirement(s):

- Premajor and/or Elective course for A.A. and A.S.

DRA-271 Play Production IV 3 (0-9) Spring**Prerequisites:** DRA-270**Corequisites:** None

This course provides an applied laboratory study of the processes involved in the production of a play. Topics include fundamental practices, principles, and techniques associated with producing plays of various periods and styles. Upon completion, students should be able to participate in an assigned position with a college theatre production. (1997 SU)

ECM ELECTRONIC COMMERCE

ECM-210 Intro. to E-Commerce 3 (2-2) Spring**Prerequisites:** ENG-002^L or BSP-4002^L; CIS-110^L or CIS-111^L**Corequisites:** None

This course introduces the concepts and tools to implement electronic commerce via the Internet. Topics include application and server software selection, securing transactions, use and verification of credit cards, publishing of catalogs, and site administration. Upon completion, students should be able to setup a working e-commerce Internet web site.(2003 FA)

ECO ECONOMICS

ECO-151 Survey of Economics 3 (3-0) Fall**Prerequisites:** ENG-002^L or BSP-4002^L, MAT-003^L or BSP-4003^L**Corequisites:** None

This course, for those who have not received credit for ECO 251 or 252, introduces basic concepts of micro- and macroeconomics. Topics include supply and demand, optimizing economic behavior, prices and wages, money, interest rates, banking system, unemployment, inflation, taxes, government spending, and international trade. Upon completion, students should be able to explain alternative solutions for economic problems faced by private and government sectors.(1997 SU) This course has been approved to satisfy the following requirement(s):

- Social/Behavioral Science Gen. Ed. course for A.A., A.A. Teacher Preparation, and A.S.
- Social/Behavioral Science Gen. Ed. course for A.A.S. and A.G.E.

COURSE DESCRIPTIONS

ECO-251	Prin of Microeconomics	3 (3-0)	Fall Spring Summer
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Prerequisites: ENG-002^L or BSP-4002^L, MAT-003^L or BSP-4003^L

Corequisites: None

This course introduces economic analysis of individual, business, and industry in the market economy. Topics include the price mechanism, supply and demand, optimizing economic behavior, costs and revenue, market structures, factor markets, income distribution, market failure, and government intervention. Upon completion, students should be able to identify and evaluate consumer and business alternatives in order to efficiently achieve economic objectives.(1997 SU) This course has been approved to satisfy the following requirement(s):

- UGETC course for A.A., A.A. Teacher Preparation, A.F.A., A.E., A.S., and A.S. Teacher Preparation
- Social/Behavioral Science Gen. Ed. course for A.A.S. and A.G.E.

ECO-252	Prin of Macroeconomics	3 (3-0)	Fall Spring
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Prerequisites: ENG-002^L or BSP-4002^L, MAT-003^L or BSP-4003^L

Corequisites: None

This course introduces economic analysis of aggregate employment, income, and prices. Topics include major schools of economic thought aggregate supply and demand economic measures, fluctuations, and growth money and banking stabilization techniques and international trade. Upon completion, students should be able to evaluate national economic components, conditions, and alternatives for achieving socioeconomic goals.(1997 SU) This course has been approved to satisfy the following requirement(s):

- UGETC course for A.A., A.A. Teacher Preparation, A.F.A., A.S., and A.S. Teacher Preparation
- Other Gen. Ed. and Premajor Elective course for A.E.
- Social/Behavioral Science Gen. Ed. course for A.A.S. and A.G.E.

EDU EDUCATION

EDU-114	Intro to Family Childcare	3 (3-0)	Spring
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Prerequisites: None

Corequisites: None

This course introduces the student to family child care home environments with emphasis on standards and developmentally effective approaches for supporting diverse children and families. Topics include standards for quality, curriculum for multiple age groups, authentic assessment methods, business practices, building positive family and community partnerships, and professionalism. Upon completion, students should be able to design a family child care handbook that reflects a healthy, respectful, supportive, and stimulating learning environment. (2020 FA)

EDU-119 Intro to Early Child Educ 4 (4-0) Fall**Prerequisites:** None**Corequisites:** None

This course introduces the foundations of early childhood education, the diverse educational settings for young children, professionalism and planning intentional developmentally appropriate experiences for each child. Topics include theoretical foundations, national early learning standards, NC Foundations for Early Learning and Development, state regulations, program types, career options, professionalism, ethical conduct, quality inclusive environments, and curriculum responsive to the needs of each child/family. Upon completion, students should be able to design a career/professional development plan, appropriate environments, schedules, and activity plans.(2022 FA)

EDU-131 Child, Family, and Community 3 (3-0) Fall**Prerequisites:** None**Corequisites:** None

This course covers the development of partnerships among culturally, linguistically and ability diverse families, children, schools and communities through the use of evidence-based strategies. Emphasis is placed on developing skills and identifying benefits for establishing and supporting respectful relationships between diverse families, programs/schools, and community agencies/resources reflective of the NAEYC Code of Ethical Conduct and the Code of Ethics for North Carolina Educators. Upon completion, students should be able to identify appropriate relationship building strategies between diverse families, children birth through adolescence, schools, and communities and demonstrate a variety of communication skills including appropriate use of technology to support every child.(2020 FA) This course has been approved to satisfy the following requirement(s):

- Premajor and/or Elective course for A.A. and A.S.

EDU-144 Child Development I 3 (3-0) Fall**Prerequisites:** None**Corequisites:** None

This course includes the theories of child development, observation and assessment, milestones, and factors that influence development, from conception through approximately 36 months. Emphasis is placed on knowledge, observation and assessment of developmental sequences in approaches to play/learning, emotional/social, health/physical, language/communication and cognitive domains. Upon completion, students should be able to compare/contrast typical/atypical developmental characteristics, explain biological and environmental factors that impact development, and identify evidence-based strategies for enhancing development for children that are culturally, linguistically, and ability diverse.(2020 FA) This course has been approved to satisfy the following requirement(s):

- Premajor and/or Elective course for A.A. and A.S.

COURSE DESCRIPTIONS

EDU-145 Child Development II 3 (3-0) Spring**Prerequisites:** None**Corequisites:** None

This course includes the theories of child development, observation and assessment, milestones, and factors that influence development, from preschool through middle childhood. Emphasis is placed on knowledge, observation and assessment of developmental sequences in approaches to play/learning, emotional/social, health/physical, language/communication and cognitive domains. Upon completion, students should be able to compare/contrast typical/atypical developmental characteristics, explain biological and environmental factors that impact development, and identify evidence-based strategies for enhancing development for children that are culturally, linguistically, and ability diverse.(2020 FA) This course has been approved to satisfy the following requirement(s):

- Premajor and/or Elective course for A.A. and A.S.

EDU-146 Child Guidance 3 (3-0) Spring**Prerequisites:** None**Corequisites:** None

This course introduces evidence-based strategies to build nurturing relationships with each child by applying principles and practical techniques to facilitate developmentally appropriate guidance. Topics include designing responsive/supportive learning environments, cultural, linguistic and socio-economic influences on behavior, appropriate expectations, the importance of communication with children/families including using technology and the use of formative assessments in establishing intentional strategies for children with unique needs. Upon completion, students should be able to demonstrate direct/indirect strategies to encourage social skills, self-regulation, emotional expression and positive behaviors while recognizing the relationship between children's social, emotional and cognitive development.(2020 FA)

EDU-151 Creative Activities 3 (3-0) Fall**Prerequisites:** None**Corequisites:** None

This course introduces developmentally supportive creative learning environments with attention to divergent thinking, creative problem-solving, evidence-based teaching practices, and open-ended learning materials while applying NC Foundations for Early Learning and Development. Emphasis is placed on observation of process driven learning experiences in art, music, creative movement, dance, and dramatics for every young child age birth through eight, integrated through all domains and academic content. Upon completion, students should be able to examine, create, and adapt developmentally creative learning materials, experiences, and environments for children that are culturally, linguistically, and ability diverse.(2022 FA)

EDU-153 Health, Safety and Nutrition 3 (3-0) Spring**Prerequisites:** None**Corequisites:** None

This course covers promoting and maintaining the health and well-being of every child. Topics include health and nutritional guidelines, common childhood illnesses, maintaining safe and healthy learning environments, health benefits of active play, recognition and reporting of abuse/neglect, and state regulations. Upon completion, students should be able to apply knowledge of NC Foundations for Early Learning and Development for health, safety, nutritional needs and safe learning environments.(2020 FA)

EDU-157 Active Play 3 (2-2) Fall**Prerequisites:** None**Corequisites:** None

This course introduces physical activities to promote the development of the whole child, birth through middle childhood. Topics include active play, outdoor learning, design of the environment, development of play skills, loose parts play, nature play, risk benefit assessment, advocacy, and family/community connection. Upon completion, students should be able to discuss the stages of play, the role of teachers in play, active play environments, advocate for the child's right to play, and plan and assess appropriate experiences using NC Foundations for Early Learning and Development.(2022 FA)

EDU-184 Early Child Intro Pract 2 (1-3) AND**Prerequisites:** EDU-119^S**Corequisites:** None

This course introduces students to early childhood settings and applying skills in a three star (minimum) or NAEYC accredited or equivalent, quality early childhood environment. Emphasis is placed on observing children and assisting in the implementation of developmentally appropriate activities/environments for all children and modeling reflective/professional practices. Upon completion, students should be able to demonstrate developmentally appropriate interactions with children and ethical/professional behaviors as indicated by assignments and onsite faculty visits.(2022 FA)

EDU-187 Teaching and Learning for All 4 (3-3) Fall**Prerequisites:** None**Corequisites:** None

This course introduces students to knowledge, concepts, and best practices needed to provide developmentally appropriate, effective, inclusive, and culturally responsive educational experiences in the classroom. Topics include growth and development, learning theory, student motivation, teaching diverse learners, classroom management, inclusive environments, student-centered practices, instructional strategies, teaching methodologies, observation/assessment techniques, educational planning, reflective practice, collaboration, cultural competence, ethics, professionalism, and leadership. Upon completion, students should be able to identify the knowledge, skills, roles, and responsibilities of an effective educator as defined by state and national professional teaching standards.(2020 FA) This course has been approved to satisfy the following requirement(s):

- Other Required Hours/Universal Ed. course for A.A. Teacher Preparation and A.S. Teacher Preparation

EDU-216 Foundations of Education 3 (3-0) Fall**Prerequisites:** None**Corequisites:** None

This course introduces the examination of the American educational systems and the teaching profession. Topics include the historical and philosophical influences on education, various perspectives on educational issues, and experiences in birth through grade 12 classrooms. Upon completion, students should be able to reflect on classroom observations, analyze the different educational approaches, including classical/traditional and progressive, and have knowledge of the various roles of educational systems at the federal, state and local level.(2020 FA) This course has been approved to satisfy the following requirement(s):

- Other Required Hours for A.A. Teacher Preparation and A.S. Teacher Preparation
- Premajor and/or Elective course for A.A. and A.S.

EDU-221 Children With Exceptionalities 3 (3-0) Spring**Prerequisites:** EDU-144^S, EDU-145^S**Corequisites:** None

This course covers atypical patterns of child development, inclusive/diverse settings, evidenced-based educational/family plans, differentiated instruction, adaptive materials, and assistive technology. Emphasis is placed on the characteristics of exceptionalities and delays, early intervention/special education, transitions, observation, developmental screening, formative assessment of children, and collaborating with families and community partners. Upon completion, students should be able to recognize diverse abilities, describe the referral process, identify community resources, explain the importance of collaboration with families/professionals, and develop appropriate strategies/adaptations to support children in all environments with best practices as defined by laws, policies and the NC Foundations for Early Learning and Development. (2020 FA) This course has been approved to satisfy the following requirement(s):

- Premajor and/or Elective course for A.A. and A.S.

EDU-234 Infants, Toddlers, and Twos 3 (3-0) Spring**Prerequisites:** EDU-119^S**Corequisites:** None

This course covers the development of high-quality, individualized, responsive/engaging relationships and experiences for infants, toddlers, and twos. Emphasis is placed on typical and atypical child development, working with diverse families to provide positive, supportive, and engaging early learning activities and interactions through field experiences and the application of the NC Foundations for Early Learning and Development. Upon completion, students should be able to demonstrate responsive curriculum planning, respectful relationships and exposure to a variety of developmentally appropriate experiences/materials that support a foundation for healthy development and growth of culturally, linguistically and ability diverse children birth to 36 months.(2020 FA)

EDU-235 School-Age Develop & Programs 3 (3-0) Fall**Prerequisites:** None**Corequisites:** None

This course includes developmentally appropriate practices in group settings for school-age children. Emphasis is placed on principles of development, environmental planning, and positive guidance techniques and program development. Upon completion, students should be able to discuss developmental principles for culturally, linguistically, and ability diverse children ages five to twelve and plan and implement developmentally appropriate programs and activities.(2020 FA)

EDU-250 Teacher Licensure Preparation 3 (3-0) Spring**Prerequisites:** ENG-111^S; MAT-143^S, MAT-152^S, or MAT-171^S**Corequisites:** None

This course provides information and strategies necessary for transfer to a teacher licensure program at a senior institution. Topics include entry level teacher licensure exam preparation, performance based assessment systems, requirements for entry into teacher education programs, the process to become a licensed teacher in North Carolina, and professionalism including expectations within the field of education. Upon completion, students should be able to utilize educational terminology and demonstrate knowledge of teacher licensure processes including exam preparation, technology based portfolio assessment, and secondary admissions processes to the school of education at a senior institution.(2018 FA)

This course has been approved to satisfy the following requirement(s):

- Other Required Hours/Universal Ed. course for A.A. Teacher Preparation and A.S. Teacher Preparation

EDU-251 Exploration Activities 3 (3-0) Spring**Prerequisites:** None**Corequisites:** None

This course covers fundamental concepts in the content areas of science, technology, engineering, math and social studies through investigative experiences. Emphasis is placed on exploring fundamental concepts, developmentally appropriate scope and sequence, and teaching strategies to engage each child in the discovery approach. Upon completion, students should be able to understand major concepts in each content area and implement appropriate experiences for young children.(2022 FA)

EDU-259 Curriculum Planning 3 (3-0) Fall**Prerequisites:** EDU-119^S**Corequisites:** None

This course is designed to focus on using content knowledge to build developmentally effective approaches for culturally/linguistically/ability diverse young children. Topics include components of curriculum, a variety of curriculum models, authentic observation and assessment, and planning developmentally appropriate experiences aligned with the NC Foundations for Early Learning and Development. Upon completion, students should be able to understand, evaluate, and use curriculum to plan for individual/group needs.(2022 FA)

COURSE DESCRIPTIONS

EDU-261 Early Childhood Admin I 3 (3-0) Summer
Prerequisites: None
Corequisites: EDU-119^S

This course introduces principles and practices essential to preparing and supporting child care administrators. Topics include program philosophy, policies and procedures, NC Child Care Law and Rules, business planning, personnel and fiscal management, and NAEYC Code of Ethical Conduct Supplement for Early Childhood Program Administration. Upon completion, students should be able to articulate a developmentally appropriate program philosophy, locate current state licensing regulations, analyze a business plan and examine comprehensive program policies and procedures.(2020 FA)

EDU-262 Early Childhood Admin II 3 (3-0) Summer
Prerequisites: EDU-119^S, EDU-261^S
Corequisites: None

This course focuses on advocacy/leadership, public relations/community outreach and program quality/evaluation for diverse early childhood programs. Topics include program evaluation/accreditation, involvement in early childhood professional organizations, leadership/mentoring, family, volunteer and community involvement and early childhood advocacy. Upon completion, students should be able to define and evaluate all components of early childhood programs, develop strategies for advocacy and integrate community into programs.(2020 FA)

EDU-270 Effective Instructional Enviro 2 (2-0) Fall
Prerequisites: None
Corequisites: None

This course is designed to provide learners with the knowledge and skills to create, manage, and assess effective instructional environments, learning attitudes, and behaviors for today's diverse learning population. Topics include organizing the learning environment, fostering positive learning attitudes, supporting healthy stakeholder partnerships, engaging students using effective differentiated instruction, guiding, and managing student behaviors, and assessing student progress. Upon completion of this course, learners will demonstrate effective dispositions of the professional educator that include managing schedules, spaces, and resources, promoting supportive learning mindsets, engaging students with diverse instructional strategies, guiding student behaviors to maximize both the instructional and social climate, and analyzing and effectively responding to student progress.(2022 FA)

EDU-271 Educational Technology 3 (2-2) AND
Prerequisites: None
Corequisites: None

This course introduces the ethical use of technology to enhance teaching and learning in all educational settings. Emphasis is placed on technology concepts, ethical issues, digital citizenship, instructional strategies, assistive technology, and the use of technology for professional development and communication. Upon completion, students should be able to discuss technology concepts, ethically use a variety of technology resources, demonstrate appropriate technology skills in educational environments, and identify assistive technology.(2020 FA)

EDU-272 Technology, Data, and Assess 3 (2-3) Spring**Prerequisites:** None**Corequisites:** None

This course introduces the ethical use of technology to enhance teaching and learning in all educational settings. Emphasis is placed on technology concepts, ethical issues, digital citizenship, instructional strategies, assistive technology, and the use of technology for professional development and communication. Upon completion, students should be able to discuss technology concepts, ethically use a variety of technology resources, demonstrate appropriate technology skills in educational environments, and identify assistive technology.(2020 FA)

EDU-275 Effective Teach Train 2 (2-0) AND**Prerequisites:** None**Corequisites:** None

This course provides specialized training using an experienced-based approach to learning. Topics include instructional preparation and presentation, student interaction, time management, learning expectations, evaluation, and curriculum principles and planning. Upon completion, students should be able to prepare and present a six-step lesson plan and demonstrate ways to improve students' time-on-task.(2020 FA)

EDU-277 Integr CU Inst: Math/Science 3 (2-3) Spring**Prerequisites:** None**Corequisites:** None

This course is designed to provide learners with the content knowledge, instructional methods/materials, and assessment techniques needed to provide research-based math and science K - 12 instruction. Topics include essential math and science concepts and skills, developmentally appropriate pedagogy, culturally responsive instruction, standards-based outcomes, technology enhanced lesson planning, formative/summative assessments, research-based interventions, authentic learning experiences, and reflective practice. Upon completion, learners will be able to plan, implement, assess, and reflect on developmentally appropriate math and science instruction aligned to the NC Standard Course of Study, other professional and national standards.(2022 FA)

EDU-278 Integr CU Inst: Soc Stu/ELA 3 (2-3) Spring**Prerequisites:** None**Corequisites:** None

This course is designed to provide learners with the content knowledge, instructional methods/materials, and assessment techniques needed to provide research-based social studies and ELA K -12 instruction. Topics include essential social studies and ELA concepts and skills, developmentally appropriate pedagogy, culturally responsive instruction, standards-based outcomes, technology enhanced lesson planning, formative/summative assessments, research-based interventions, authentic learning experiences, and reflective practice. Upon completion, learners will be able to plan, implement, assess, and reflect on developmentally appropriate social studies and ELA instruction aligned to the NC Standard Course of Study, other professional and national standards. (2022 FA)

EDU-279 Literacy Develop and Instruct 4 (3-3) Spring**Prerequisites:** None**Corequisites:** None

This course is designed to provide students with concepts and skills of literacy development, instructional methods/materials and assessment techniques needed to provide scientifically-based, systematic reading and writing instruction into educational practice. Topics include literacy concepts, reading and writing development, developmentally appropriate pedagogy, culturally-responsive instruction, standards-based outcomes, lesson planning, formative/summative assessment, recognizing reading difficulties, research-based interventions, authentic learning experiences, classroom implementation, and reflective practice. Upon completion, students should be able to plan, implement, assess, evaluate, and demonstrate developmentally appropriate literacy instruction aligned to the NC Standard Course of Study and other state and national standards.(2020 FA)

This course has been approved to satisfy the following requirement(s):

- Other Required Hours/Universal Ed. course for A.A. Teacher Preparation and A.S. Teacher Preparation

EDU-280 Language/Literacy Experiences 3 (3-0) Fall**Prerequisites:** None**Corequisites:** None

This course provides evidence-based strategies for enhancing language and literacy experiences that align with NC Foundations for Early Learning and Development. Topics include developmental sequences for children's emergent receptive and expressive language, print concepts, appropriate observations/assessments, literacy enriched environments, quality selection of diverse literature, interactive media, and inclusive practices. Upon completion, students should be able to select, plan, implement and evaluate developmentally appropriate language and literacy experiences for children who are culturally, linguistically and ability diverse.(2020 FA)

EDU-283 Educator Preparation Practicum 3 (2-3) Spring**Prerequisites:** None**Corequisites:** None

This course is designed to allow learners to demonstrate acquired skills and competencies in a developmentally appropriate learning environment. Topics include dispositions of effective teachers, portfolio assessment development, reflective practice, teaching methods, assessment strategies, and professional practices based on state and national Teaching Standards. Upon completion, learners should be able to provide a portfolio assessment with evidence of ethical/professional standards, respect for a diverse population in learning environments, content knowledge, appropriate guidance intervention, and grade-level technology enhanced lesson planning/assessments through practices in the classroom environment. (2022 FA)

EDU-284 Early Child Capstone Prac 4 (1-9) Spring
Prerequisites: EDU-119^S, EDU-144^S, EDU-145^S, EDU-146^S, EDU-151^S
Corequisites: MAT-003

This course is designed to allow students to demonstrate acquired skills in a three star (minimum) or NAEYC accredited or equivalent, quality early childhood environment. Emphasis is placed on designing, implementing and evaluating developmentally appropriate activities and environments for all children supporting/engaging families and modeling reflective and professional practices based on national and state guidelines. Upon completion, students should be able to apply NC Foundations for Early Learning and Development to demonstrate developmentally appropriate plans/assessments, appropriate guidance techniques and ethical/professional behaviors, including the use of appropriate technology, as indicated by assignments and onsite faculty assessments.(2020 FA)

EGR ENGINEERING

**EGR-110 Intro to Engineering Tech 2 (1-2) Fall
Spring**
Prerequisites: None

Corequisites: None

This course introduces general topics relevant to engineering technology. Topics include career assessment, professional ethics, critical thinking and problem solving, usage of college resources for study and research, and using tools for engineering computations. Upon completion, students should be able to choose a career option in engineering technology and utilize college resources to meet their educational goals.(2005 SP)

EGR-115 Intro to Technology 3 (2-3) Fall
Prerequisites: None

Corequisites: EGR-115A^L

This course introduces the basic skills and career fields for technicians. Topics include career options, technical vocabulary, dimensional analysis, measurement systems, engineering graphics, calculator applications, professional ethics, safety practices, and other related topics. Upon completion, students should be able to demonstrate an understanding of the basic technologies, prepare drawings and sketches, and perform computations using a scientific calculator.(2005 SP)

EGR-115A Intro to Technology Lab 1 (0-3) Fall
Prerequisites: None

Corequisites: EGR-115^S

This course provides a laboratory setting for EGR 111. Emphasis is placed on developing skills in dimensional analysis, measurement systems, engineering graphics, and calculator applications. Upon completion, students should be able to apply the laboratory experiences to the concepts presented in EGR 115.(2005 SP)

EGR-120 Eng and Design Graphics 3 (2-2) Spring**Prerequisites:** None**Corequisites:** None

This course introduces the graphical tools for engineering and design communications. Emphasis is placed upon selecting the appropriate methods and tools and conveying ideas using sketches, orthographic views and projections, and computer graphics applications. Upon completion, students should be able to communicate essential features of two-dimensional and three-dimensional objects using the proper tools and methods.(2013 FA) This course has been approved to satisfy the following requirement(s):

- Premajor and/or Elective course for A.A. and A.S.

EGR-125 Appl Software for Tech 2 (1-2) AND**Prerequisites:** None**Corequisites:** None

This course introduces personal computer software and teaches students how to customize the software for technical applications. Emphasis is placed on the use of common office applications software programs such as spreadsheets, word processing, graphics, and internet access. Upon completion, students should be able to demonstrate competency in using applications software to solve technical problems and communicate the results in text and graphical formats.(2005 SP)

**EGR-150 Intro to Engineering 2 (1-2) Fall
Spring****Prerequisites:** None**Corequisites:** None

This course is an overview of the engineering profession. Topics include goal setting and career assessment, ethics, public safety, the engineering method and design process, written and oral communication, interpersonal skills and team building, and computer applications. Upon completion, students should be able to understand the engineering process, the engineering profession, and utilize college resources to meet their educational goals.(2005 SP) This course has been approved to satisfy the following requirement(s):

- Premajor and/or Elective course for A.A. and A.S.
- Other Required Hours course for A.E.

EGR-220 Engineering Statics 3 (3-0) AND**Prerequisites:** PHY-251^S**Corequisites:** MAT-272^S

This course introduces the concepts of engineering based on forces in equilibrium. Topics include concentrated forces, distributed forces, forces due to friction, and inertia as they apply to machines, structures, and systems. Upon completion, students should be able to solve problems which require the ability to analyze systems of forces in static equilibrium.(1997 FA) This course has been approved to satisfy the following requirement(s):

- Premajor and/or Elective course for A.A. and A.S.
- Other Gen. Ed. and Premajor Elective course for A.E.

EGR-251	Statics	3 (2-2)	Summer
Prerequisites:	ARC-111 ^L , CEG-115 ^L or EGR-115 ^L		
Corequisites:	MAT-121 ^L or MAT-171 ^L		

This course covers the concepts and principles of statics. Topics include systems of forces and moments on structures in two- and three-dimensions in equilibrium. Upon completion, students should be able to analyze forces and moments on structures.(2013 FA)

ELC ELECTRICITY

ELC-113	Residential Wiring	4 (2-6)	AND
Prerequisites:	None		
Corequisites:	None		

This course introduces the care/usage of tools and materials used in residential electrical installations and the requirements of the National Electrical Code. Topics include NEC, electrical safety, and electrical print reading planning, layout and installation of electrical distribution equipment lighting overcurrent protection conductors branch circuits and conduits. Upon completion, students should be able to properly install conduits, wiring, and electrical distribution equipment associated with residential electrical installations.(2013 FA)

ELC-114	Commercial Wiring	4 (2-6)	AND
Prerequisites:	None		
Corequisites:	None		

This course provides instruction in the application of electrical tools, materials, and test equipment associated with commercial electrical installations. Topics include the NEC safety electrical blueprints planning, layout, and installation of equipment and conduits and wiring devices such as panels and overcurrent devices. Upon completion, students should be able to properly install equipment and conduit associated with commercial electrical installations.(2013 FA)

ELC-115	Industrial Wiring	4 (2-6)	AND
Prerequisites:	None		
Corequisites:	None		

This course covers layout, planning, and installation of wiring systems in industrial facilities. Emphasis is placed on industrial wiring methods and materials. Upon completion, students should be able to install industrial systems and equipment. (2013 FA)

ELC-117	Motors and Controls	4 (2-6)	AND
Prerequisites:	None		
Corequisites:	None		

This course introduces the fundamental concepts of motors and motor controls. Topics include ladder diagrams, pilot devices, contactors, motor starters, motors, and other control devices. Upon completion, students should be able to properly select, connect, and troubleshoot motors and control circuits.(2013 FA)

COURSE DESCRIPTIONS

ELC-128 Intro to PLC 3 (2-3) AND**Prerequisites:** None**Corequisites:** None

This course introduces the programmable logic controller (PLC) and its associated applications. Topics include ladder logic diagrams, input/output modules, power supplies, surge protection, selection/installation of controllers, and interfacing of controllers with equipment. Upon completion, students should be able to understand basic PLC systems and create simple programs.(2013 FA)

ELC-131 Circuit Analysis I 4 (3-3) Fall**Prerequisites:** None**Corequisites:** None

This course introduces DC and AC electricity with an emphasis on circuit analysis, measurements, and operation of test equipment. Topics include DC and AC principles, circuit analysis laws and theorems, components, test equipment operation, circuit simulation, and other related topics. Upon completion, students should be able to interpret circuit schematics design, construct, verify, and analyze DC/AC circuits and properly use test equipment.(2013 FA)

ELC-215 Electrical Maintenance 3 (2-3) AND**Prerequisites:** None**Corequisites:** None

This course introduces the theory of maintenance and the skills necessary to maintain electrical equipment found in industrial and commercial facilities. Topics include maintenance theory, predictive and preventive maintenance, electrical equipment operation and maintenance, and maintenance documentation. Upon completion, students should be able to perform maintenance on electrical equipment in industrial and commercial facilities.(2007 FA)

ELN ELECTRONICS

ELN-131 Analog Electronics I 4 (3-3) Spring**Prerequisites:** None**Corequisites:** None

This course introduces the characteristics and applications of semiconductor devices and circuits. Emphasis is placed on analysis, selection, biasing, and applications. Upon completion, students should be able to construct, analyze, verify, and troubleshoot analog circuits using appropriate techniques and test equipment.(2013 FA)

ELN-133 Digital Electronics 4 (3-3) Summer**Prerequisites:** None**Corequisites:** None

This course covers combinational and sequential logic circuits. Topics include number systems, Boolean algebra, logic families, medium scale integration (MSI) and large scale integration (LSI) circuits, analog to digital (AD) and digital to analog (DA) conversion, and other related topics. Upon completion, students should be able to construct, analyze, verify, and troubleshoot digital circuits using appropriate techniques and test equipment.(2013 FA)

ELN-232 Intro to Microprocessors 4 (3-3) Spring
Prerequisites: None**Corequisites:** None

This course introduces microprocessor architecture and microcomputer systems including memory and input/output interfacing. Topics include low-level language programming, bus architecture, I/O systems, memory systems, interrupts, and other related topics. Upon completion, students should be able to interpret, analyze, verify, and troubleshoot fundamental microprocessor circuits and programs using appropriate techniques and test equipment.(1997 SU)

EMS EMERGENCY MEDICAL SCIENCE

**EMS-110 EMT 9 (6-6-3) Fall
Spring
Summer**
Prerequisites: ENG-002^L or BSP-4002^L, MAT-003^L or BSP-4003^L**Corequisites:** None

This course introduces basic emergency medical care. Topics include preparatory, airway, patient assessment, medical emergencies, trauma, infants and children, and operations. Upon completion, students should be able to demonstrate the knowledge and skills necessary to achieve North Carolina State or National Registry EMT certification.(2019 SP)

EMS-115 Defense Tactics for EMS 2 (1-3) AND
Prerequisites: None**Corequisites:** None

This course is designed to provide tactics that can be used for self-protection in dangerous and violent situations. Emphasis is placed on prediction, recognition, and response to dangerous and violent situations. Upon completion, students should be able to recognize potentially hostile situations and protect themselves during a confrontation.(1997 SU)

EMS-120 Advanced EMT 6 (4-6) AND
Prerequisites: EMS-110^S**Corequisites:** EMS-121^S

This course is designed to provide the essential information on pre-hospital management techniques appropriate to the level of the Advanced EMT. Topics must meet current credentialing and/or regulatory guidelines for the Advanced EMT as outlined by the NC Office of EMS. Upon completion, students should be able to demonstrate competency at the Advanced EMT level.(2019 SP)

EMS-121 AEMT Clinical Practicum 2 (0-0-6) AND
Prerequisites: EMS-110^S**Corequisites:** EMS-120^S

This course provides the hospital and field internship/clinical experiences required in preparation for the Advanced EMT certification. Emphasis is placed on performing patient assessments, treatments, and interactions appropriate at the Advanced EMT level of care. Upon completion, students should be able to demonstrate competency at the Advanced EMT skill level.(2019 SP)

EMS-122 EMS Clinical Practicum I 1 (0-0-3) Spring**Prerequisites:** EMS-110^S**Corequisites:** None

This course provides the introductory hospital clinical experience for the paramedic student. Emphasis is placed on mastering fundamental paramedic skills. Upon completion, students should be able to demonstrate competency with fundamental paramedic level skills.(2019 SP)

EMS-125 EMS Instructor Methodology 3 (2-2) AND**Prerequisites:** None**Corequisites:** None

This course covers the information needed to develop and instruct EMS courses. Topics include instructional methods, lesson plan development, time management skills, and theories of adult learning. Upon completion, students should be able to teach EMS courses and meet the North Carolina EMS requirements for instructor methodology.(2019 SP)

EMS-130 Pharmacology 4 (3-3) Spring**Prerequisites:** EMS-110^S**Corequisites:** None

This course introduces the fundamental principles of pharmacology and medication administration and is required for paramedic certification. Topics include medical terminology, pharmacological concepts, weights, measures, drug calculations, vascular access for fluids and medication administration and legislation. Upon completion, students should be able to accurately calculate drug dosages, properly administer medications, and demonstrate general knowledge of pharmacology.(2019 SP)

EMS-131 Advanced Airway Management 2 (1-2) Spring**Prerequisites:** EMS-110^S**Corequisites:** None

This course is designed to provide advanced airway management techniques and is required for paramedic certification. Topics must meet current guidelines for advanced airway management in the pre-hospital setting. Upon completion, students should be able to properly utilize all airway adjuncts and pharmacology associated with airway control and maintenance.(2019 SP)

EMS-140 Rescue Scene Management 2 (1-3) Spring**Prerequisites:** None**Corequisites:** None

This course introduces rescue scene management. Topics include response to hazardous material conditions, incident command, and extrication of patients from a variety of situations. Upon completion, students should be able to recognize and manage rescue operations based upon initial and follow-up scene assessment. (2014 SP)

EMS-150	Emergency Vehicles & EMS Comm	2 (1-3)	AND
Prerequisites:	None		
Corequisites:	None		
This course covers the principles governing emergency vehicles, maintenance of emergency vehicles, and EMS communication equipment. Topics include applicable motor vehicle laws affecting emergency vehicle operation, defensive driving, collision avoidance techniques, communication systems, and information management systems. Upon completion, students should have a basic knowledge of emergency vehicles, maintenance, and communication needs.(2014 SP)			
EMS-160	Cardiology I	3 (2-3)	Spring
Prerequisites:	EMS-110 ^S		
Corequisites:	None		
This course introduces the study of cardiovascular emergencies and is required for paramedic certification. Topics include anatomy and physiology, pathophysiology, electrophysiology, and rhythm interpretation. Upon completion, students should be able to recognize and interpret rhythms.(2019 SP)			
EMS-210	Adv. Patient Assessment	2 (1-3)	Spring
Prerequisites:	EMS-110 ^S		
Corequisites:	None		
This course covers advanced patient assessment techniques and is required for paramedic certification. Topics include initial assessment, medical-trauma history, field impression, complete physical exam process, on-going assessment, and documentation skills. Upon completion, students should be able to utilize basic communication skills and record and report collected patient data.(2019 SP)			
EMS-220	Cardiology II	3 (2-3)	Summer
Prerequisites:	EMS-122 ^S , EMS-130 ^S , and EMS-160 ^S		
Corequisites:	None		
This course provides an in-depth study of cardiovascular emergencies and is required for paramedic certification. Topics include assessment and treatment of cardiac emergencies, cardiac pharmacology, and patient care. Upon completion, students should be able to manage the cardiac patient.(2019 SP)			
EMS-221	EMS Clinical Practicum II	2 (0-0-6)	Summer
Prerequisites:	EMS-121 ^S or EMS-122 ^S		
Corequisites:	None		
This course provides clinical experiences in the hospital and/or field. Emphasis is placed on increasing the proficiency of students' skills and abilities in patient assessments and the delivery of care. Upon completion, students should be able to demonstrate continued progress in advanced-level patient care.(2019 SP)			
EMS-231	EMS Clinical Pract III	3 (0-0-9)	Fall
Prerequisites:	EMS-221 ^S		
Corequisites:	None		
This course provides clinical experiences in the hospital and/or field. Emphasis is placed on enhancing the students' skills and abilities in providing advanced-level care. Upon completion, students should be able to demonstrate continued progress in advanced-level patient care.(2014 SP)			

COURSE DESCRIPTIONS

EMS-235 EMS Management 2 (2-0) AND**Prerequisites:** None**Corequisites:** None

This course stresses the principles of managing a modern emergency medical service system. Topics include structure and function of municipal governments, EMS grantsmanship, finance, regulatory agencies, system management, legal issues, and other topics relevant to the EMS manager. Upon completion, students should be able to understand the principles of managing emergency medical service delivery systems.(1997 SU)

EMS-240 Patients W/ Special Challenges 2 (1-2) Fall**Prerequisites:** EMS-122^S and EMS-130^S**Corequisites:** None

This course includes concepts of crisis intervention and techniques of interacting with patients with special challenges and is required for paramedic certification. Topics include appropriate intervention and interaction for neglected, abused, terminally ill, chronically ill, technology assisted, bariatric, physically challenged, mentally challenged, or assaulted patients as well as behavioral emergencies. Upon completion, students should be able to recognize and manage the care of patients with special challenges.(2014 SP)

**EMS-241 EMS Clinical Practicum IV 4 Spring
(0-0-12)****Prerequisites:** EMS-231^S**Corequisites:** None

This course provides clinical experiences in the hospital and/or field. Emphasis is placed on mastering the skills/competencies required of the paramedic providing advanced-level care. Upon completion, students should be able to provide advanced-level patient care as an entry-level paramedic.(2014 SP)

EMS-243 Wilderness EMT 2 (1-2) AND**Prerequisites:** EMS-110^S**Corequisites:** None

This course provides an overview of emergency care when separated from definitive care by distance, time, or circumstance. Topics include principles of long-term patient care, wilderness patient assessment system, medical and environmental emergencies, medication administration, modified CPR, and spine management. Upon completion, students should be able to demonstrate the knowledge and skills necessary to gain Wilderness-EMT certification.(2012 SP)

EMS-250 Medical Emergencies 4 (3-3) Fall**Prerequisites:** EMS-122^S and EMS-130^S**Corequisites:** None

This course provides an in-depth study of medical conditions frequently encountered in the prehospital setting and is required for paramedic certification. Topics include appropriate interventions/treatments for disorders/diseases/injuries affecting the following systems: respiratory, neurological, abdominal/gastrointestinal, endocrine, genitourinary, musculoskeletal, and immunological as well as toxicology, infectious diseases and diseases of the eyes, ears, nose and throat. Upon completion, students should be able to recognize, assess and manage the care of frequently encountered medical conditions based upon initial patient assessment.(2014 SP)

EMS-260 Trauma Emergencies 2 (1-3) Summer
Prerequisites: EMS-122^S and EMS-130^S
Corequisites: None

This course provides in-depth study of trauma including pharmacological interventions for conditions frequently encountered in the prehospital setting and is required for paramedic certification. Topics include an overview of thoracic, abdominal, genitourinary, orthopedic, neurological, and multi-system trauma, soft tissue trauma of the head, neck, and face as well as environmental emergencies. Upon completion, students should be able to recognize and manage trauma situations based upon patient assessment and should adhere to standards of care. (2014 SP)

EMS-270 Life Span Emergencies 4 (3-3) Fall
Prerequisites: EMS-122^S and EMS-130^S
Corequisites: None

This course covers medical/ethical/legal issues and the spectrum of age-specific emergencies from conception through death required for paramedic certification. Topics include gynecological, obstetrical, neonatal, pediatric, and geriatric emergencies and pharmacological therapeutics. Upon completion, students should be able to recognize and treat age-specific emergencies. (2019 SP)

EMS-280 EMS Bridging Course 3 (2-2) AND
Prerequisites: None

Corequisites: None

This course is designed to provide currently credentialed state or national Paramedic students with the most current education trends in Paramedic Practice. Emphasis is placed on transitions in healthcare. Upon completion, students should be able to integrate emerging trends in pre-hospital care. (2019 SP)

EMS-285 EMS Capstone 2 (1-3) Spring
Prerequisites: EMS-220^S, EMS-250^S, EMS-260^S
Corequisites: None

This course provides an opportunity to demonstrate problem-solving skills as a team leader in simulated patient scenarios and is required for paramedic certification. Emphasis is placed on critical thinking, integration of didactic and psychomotor skills, and effective performance in simulated emergency situations. Upon completion, students should be able to recognize and appropriately respond to a variety of EMS-related events. (1997 SU)

ENG ENGLISH
**ENG-002 Transition English 3 (0-6) Fall
Spring
Summer**
Prerequisites: None

Corequisites: ACA-090^L

This course provides an opportunity to customize foundational English content in specific areas and will include developing a growth mindset. Topics include developing the academic habits, learning strategies, social skills, and growth mindset necessary to be successful in college-level English. Upon completion, students should be able to build a stronger foundation for success in their gateway level English courses by obtaining skills through a variety of instructional strategies with emphasis placed on the most essential prerequisite knowledge. (2018 FA)

COURSE DESCRIPTIONS

ENG-011	Writing and Inquiry Support	2 (1-2)	Fall Spring Summer
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Prerequisites: None

Corequisites: ENG-111^L

This course is designed to support students in the development of skills necessary for success in ENG 111 by complementing, supporting, and reinforcing ENG 111 Student Learning Outcomes. Emphasis is placed on developing a growth mindset, expanding skills for use in active reading and writing processes, recognizing organizational relationships within texts from a variety of genres and formats, and employing appropriate technology when reading and composing texts. Upon completion, students should be able to apply active reading strategies to college-level texts and produce unified, well-developed writing using standard written English.(2018 FA)

ENG-111	Writing and Inquiry	3 (3-0)	Fall Spring Summer
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Prerequisites: ENG-002^S or BSP-4002^S

Corequisites: ENG-011^S

This course is designed to develop the ability to produce clear writing in a variety of genres and formats using a recursive process. Emphasis includes inquiry, analysis, effective use of rhetorical strategies, thesis development, audience awareness, and revision. Upon completion, students should be able to produce unified, coherent, well-developed essays using standard written English.(2020 FA) This course has been approved to satisfy the following requirement(s):

- UGETC course for A.A., A.A. Teacher Preparation, A.E., A.F.A., A.S., and A.S. Teacher Preparation
- English Composition Gen. Ed. course for A.A.S. and A.G.E.

ENG-112	Writing/Research in the Disc	3 (3-0)	Fall Spring Summer
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Prerequisites: ENG-111^S

Corequisites: None

This course, the second in a series of two, introduces research techniques, documentation styles, and writing strategies. Emphasis is placed on analyzing information and ideas and incorporating research findings into documented writing and research projects. Upon completion, students should be able to evaluate and synthesize information from primary and secondary sources using documentation appropriate to various disciplines.(2014 FA) This course has been approved to satisfy the following requirement(s):

- UGETC course for A.A., A.A. Teacher Preparation, A.E., A.F.A., A.S., and A.S. Teacher Preparation
- English Composition Gen. Ed. course for A.A.S. and A.G.E.

ENG-114	Prof Research & Reporting	3 (3-0)	Fall Spring Summer
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Prerequisites: ENG-111^S

Corequisites: None

This course, the second in a series of two, is designed to teach professional communication skills. Emphasis is placed on research, listening, critical reading and thinking, analysis, interpretation, and design used in oral and written presentations. Upon completion, students should be able to work individually and collaboratively to produce well-designed business and professional written and oral presentations. (1997 SU) This course has been approved to satisfy the following requirement(s):

- English Composition Gen. Ed. course for A.A., A.A. Teacher Preparation, and A.S.
- English Composition Gen. Ed. course for A.A.S. and A.G.E.

ENG-125	Creative Writing I	3 (3-0)	Fall
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Prerequisites: ENG-111^S

Corequisites: None

This course is designed to provide students with the opportunity to practice the art of creative writing. Emphasis is placed on writing, fiction, poetry, and sketches. Upon completion, students should be able to craft and critique their own writing and critique the writing of others. (2001 FA) This course has been approved to satisfy the following requirement(s):

- Premajor and/or Elective course for A.A. and A.S.
- Humanities/Fine Arts Gen. Ed. course for A.A.S. and A.G.E.

ENG-126	Creative Writing II	3 (3-0)	AND
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Prerequisites: ENG-125^S

Corequisites: None

This course is designed as a workshop approach for advancing imaginative and literary skills. Emphasis is placed on the discussion of style, techniques, and challenges for first publications. Upon completion, students should be able to submit a piece of their writing for publication. (1997 SU) This course has been approved to satisfy the following requirement(s):

- Premajor and/or Elective course for A.A. and A.S.

ENG-131	Introduction to Literature	3 (3-0)	AND
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Prerequisites: ENG-111^S

Corequisites: ENG-112^S or ENG-114^S

This course introduces the principal genres of literature. Emphasis is placed on literary terminology, devices, structure, and interpretation. Upon completion, students should be able to analyze and respond to literature. (1997 SU) This course has been approved to satisfy the following requirement(s):

- Humanities/Fine Arts Gen. Ed. course for A.A., A.A. Teacher Preparation, and A.S.
- Humanities/Fine Arts Gen. Ed. course for A.A.S. and A.G.E.

ENG-231	American Literature I	3 (3-0)	Fall Spring Summer
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Prerequisites: ENG-112^S or ENG-114^S

Corequisites: None

This course covers selected works in American literature from its beginnings to 1865. Emphasis is placed on historical background, cultural context, and literary analysis of selected prose, poetry, and drama. Upon completion, students should be able to analyze and interpret literary works in their historical and cultural contexts.(2014 FA) This course has been approved to satisfy the following requirement(s):

- UGETC course for A.A., A.A. Teacher Preparation, A.E., A.F.A., A.S., and A.S. Teacher Preparation
- Humanities/Fine Arts Gen. Ed. course for A.A.S. and A.G.E.

ENG-232	American Literature II	3 (3-0)	Spring Summer
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Prerequisites: ENG-112^S or ENG-114^S

Corequisites: None

This course covers selected works in American literature from 1865 to the present. Emphasis is placed on historical background, cultural context, and literary analysis of selected prose, poetry, and drama. Upon completion, students should be able to analyze and interpret literary works in their historical and cultural contexts.(2014 FA) This course has been approved to satisfy the following requirement(s):

- UGETC course for A.A., A.A. Teacher Preparation, A.E., A.F.A., A.S., and A.S. Teacher Preparation
- Humanities/Fine Arts Gen. Ed. course for A.A.S. and A.G.E.

ENG-241	British Literature I	3 (3-0)	Fall
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Prerequisites: ENG-112^S or ENG-114^S

Corequisites: None

This course covers selected works in British literature from its beginnings to the Romantic Period. Emphasis is placed on historical background, cultural context, and literary analysis of selected prose, poetry, and drama. Upon completion, students should be able to interpret, analyze, and respond to literary works in their historical and cultural contexts.(1997 SU) This course has been approved to satisfy the following requirement(s):

- UGETC course for A.A., A.A. Teacher Preparation, A.E., A.F.A., A.S., and A.S. Teacher Preparation
- Humanities/Fine Arts Gen. Ed. course for A.A.S. and A.G.E.

ENG-242	British Literature II	3 (3-0)	Spring Summer
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Prerequisites: ENG-112^S or ENG-114^S

Corequisites: None

This course covers selected works in British literature from the Romantic Period to the present. Emphasis is placed on historical background, cultural context, and literary analysis of selected prose, poetry, and drama. Upon completion, students should be able to interpret, analyze, and respond to literary works in their historical and cultural contexts.(1997 SU) This course has been approved to satisfy the following requirement(s):

- UGETC course for A.A., A.A. Teacher Preparation, A.E., A.F.A., A.S., and A.S. Teacher Preparation
- Humanities/Fine Arts Gen. Ed. course for A.A.S. and A.G.E.

ENG-261	World Literature I	3 (3-0)	AND
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Prerequisites: ENG-112^S or ENG-114^S

Corequisites: None

This course introduces selected works from the Pacific, Asia, Africa, Europe, and the Americas from their literary beginnings through the seventeenth century. Emphasis is placed on historical background, cultural context, and literary analysis of selected prose, poetry, and drama. Upon completion, students should be able to interpret, analyze, and respond to selected works.(1997 SU) This course has been approved to satisfy the following requirement(s):

- Humanities/Fine Arts Gen. Ed. course for A.A., A.A. Teacher Preparation, and A.S.
- Humanities/Fine Arts Gen. Ed. course for A.A.S. and A.G.E.

ENG-262	World Literature II	3 (3-0)	AND
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Prerequisites: ENG-112^S or ENG-114^S

Corequisites: None

This course introduces selected works from the Pacific, Asia, Africa, Europe, and the Americas from the eighteenth century to the present. Emphasis is placed on historical background, cultural context, and literary analysis of selected prose, poetry, and drama. Upon completion, students should be able to interpret, analyze, and respond to selected works.(1997 SU) This course has been approved to satisfy the following requirement(s):

- Humanities/Fine Arts Gen. Ed. course for A.A., A.A. Teacher Preparation, and A.S.
- Humanities/Fine Arts Gen. Ed. course for A.A.S. and A.G.E.

ENG-273	African-American Literature	3 (3-0)	AND
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Prerequisites: ENG-112^S or ENG-114^S

Corequisites: None

This course provides a survey of the development of African-American literature from its beginnings to the present. Emphasis is placed on historical and cultural context, themes, literary traditions, and backgrounds of the authors. Upon completion, students should be able to interpret, analyze, and respond to selected texts.(1997 SU) This course has been approved to satisfy the following requirement(s):

- Premajor and/or Elective course for A.A. and A.S.
- Humanities/Fine Arts Gen. Ed. course for A.A.S. and A.G.E.

ENV-226	Environmental Law	3 (3-0)	Spring
Prerequisites:	None		
Corequisites:	None		

EPT EMERGENCY PREPAREDNESS

EPT-140	Emergency Management	3 (3-0)	Fall
Prerequisites:	None		
Corequisites:	None		

FIP FIRE PROTECTION

FIP-120	Intro to Fire Protection	3 (3-0)	Fall
Prerequisites:	None		
Corequisites:	None		

FIP-124	Fire Prevention & Public Ed	3 (3-0)	Fall
Prerequisites:	None		
Corequisites:	None		

This course introduces fire prevention concepts as they relate to community and industrial operations referenced in NFPA standard 101. Topics include the development and maintenance of fire prevention programs, educational programs, and inspection programs. Upon completion, students should be able to research, develop, and present a fire safety program to a citizens or industrial group.(2014 FA)

FIP-128 Detection & Investigation 3 (3-0) Fall**Prerequisites:** None**Corequisites:** None

This course covers procedures for determining the origin and cause of accidental and incendiary fires referenced in NFPA standard 921. Topics include collection and preservation of evidence, detection and determination of accelerants, courtroom procedure and testimony, and documentation of the fire scene. Upon completion, students should be able to conduct a competent fire investigation and present those findings to appropriate officials or equivalent. (2014 FA)

FIP-132 Building Construction 3 (3-0) Spring**Prerequisites:** None**Corequisites:** None

This course covers the principles and practices reference in NFPA standard 220 related to various types of building construction, including residential and commercial, as impacted by fire conditions. Topics include types of construction and related elements, fire resistive aspects of construction materials, building codes, collapse, and other related topics. Upon completion, students should be able to understand and recognize various types of construction and their positive or negative aspects as related to fire conditions. (2014 FA)

FIP-136 Inspections & Codes 3 (3-0) Fall**Prerequisites:** None**Corequisites:** None

This course covers the fundamentals of fire and building codes and procedures to conduct an inspection referenced in NFPA standard 1730. Topics include review of fire and building codes, writing inspection reports, identifying hazards, plan reviews, site sketches, and other related topics. Upon completion, students should be able to conduct a fire code compliance inspection and produce a written report. (2014 FA)

FIP-152 Fire Protection Law 3 (3-0) Spring**Prerequisites:** None**Corequisites:** None

This course covers fire protection law as referenced in NFPA standard 1. Topics include legal terms, contracts, liability, review of case histories, and other related topics. Upon completion, students should be able to discuss laws, codes, and ordinances as they relate to fire protection. (2014 FA)

FIP-220 Fire Fighting Strategies 3 (3-0) Spring**Prerequisites:** None**Corequisites:** None

This course provides preparation for command of initial incident operations involving emergencies within both the public and private sector referenced in NFPA standards 1561, 1710, and 1720. Topics include incident management, fire-ground tactics and strategies, incident safety, and command/control of emergency operations. Upon completion, students should be able to describe the initial incident system as it relates to operations involving various emergencies in fire and non-fire situations. (2014 FA)

FIP-224	Fire Instructor I & II	4 (4-0)	Fall
Prerequisites: None			
Corequisites: None			
This course covers the knowledge, skills, and abilities needed to train others in fire service operations. Topics include planning, presenting, and evaluating lesson plans, learning styles, use of media, communication, and other related topics. Upon completion, students should be able to meet the requirements of the Fire Instructor I and II objectives from National Fire Protection Association (NFPA) 1041.(2014 FA)			
FIP-228	Local Govt Finance	3 (3-0)	Spring
Prerequisites: None			
Corequisites: None			
This course introduces local governmental financial principles and practices. Topics include budget preparation and justification, revenue policies, statutory requirements, audits, and the economic climate. Upon completion, students should be able to comprehend the importance of finance as it applies to the operations of a department.(2014 FA)			
FIP-230	Chem of Hazardous Mat I	5 (5-0)	Fall
Prerequisites: None			
Corequisites: None			
This course covers the evaluation of hazardous materials referenced in NFPA standard 1072. Topics include use of the periodic table, hydrocarbon derivatives, placards and labels, parameters of combustion, and spill and leak mitigation. Upon completion, students should be able to demonstrate knowledge of the chemical behavior of hazardous materials.(2014 FA)			
FIP-232	Hydraulics & Water Dist	3 (2-2)	Fall
Prerequisites: None			
Corequisites: None			
This course covers the flow of fluids through fire hoses, nozzles, appliances, pumps, standpipes, water mains, and other devices reference in NFPA standard 25. Emphasis is placed on supply and delivery systems, fire flow testing, hydraulic calculations, and other related topics. Upon completion, students should be able to perform hydraulic calculations, conduct water availability tests, and demonstrate knowledge of water distribution systems.(2014 FA)			
FIP-240	Fire Service Supervision	3 (3-0)	Spring
Prerequisites: None			
Corequisites: None			
This course covers supervisory skills and practices in the fire protection field. Topics include the supervisor's job, supervision skills, the changing work environment, managing change, organizing for results, discipline and grievances, and safety. Upon completion, students should be able to demonstrate an understanding of the roles and responsibilities of effective fire service supervision, meeting elements of NFPA 1021.(2014 FA)			

FIP-256 Munic Public Relations 3 (3-0) Spring
Prerequisites: None**Corequisites:** None

This course is a general survey of municipal public relations and their effect on the governmental process referenced in NFPA standard 1035. Topics include principles of public relations, press releases, press conferences, public information officers, image surveys, and the effects of perceived service on fire protection delivery.

Upon completion, students should be able to manage public relations functions of organizations which meet elements of NFPA 1021 for Fire Officer I and II.(2014 FA)

FIP-276 Managing Fire Services 3 (3-0) Spring
Prerequisites: None**Corequisites:** None

This course provides an overview of fire department operative services referenced in NFPA standard 1021. Topics include finance, staffing, equipment, code enforcement, management information, specialized services, legal issues, planning, and other related topics. Upon completion, students should be able to understand concepts and apply fire department management and operations principles.(2014 FA)

FRE FRENCH

**FRE-111 Elementary French I 3 (3-0) Fall
Spring
Summer**
Prerequisites: None**Corequisites:** None

This course introduces the fundamental elements of the French language within a cultural context. Emphasis is placed on the development of basic listening, speaking, reading, and writing skills. Upon completion, students should be able to comprehend and respond with grammatical accuracy to spoken and written French and demonstrate cultural awareness.(1997 SU) This course has been approved to satisfy the following requirement(s):

- Humanities/Fine Arts Gen. Ed. course for A.A., A.A. Teacher Preparation, and A.S.

**FRE-112 Elementary French II 3 (3-0) Fall
Spring
Summer**
Prerequisites: FRE-111^S**Corequisites:** None

This course is a continuation of FRE 111 focusing on the fundamental elements of the French language within a cultural context. Emphasis is placed on the progressive development of listening, speaking, reading, and writing skills. Upon completion, students should be able to comprehend and respond with increasing proficiency to spoken and written French and demonstrate further cultural awareness.(1997 SU) This course has been approved to satisfy the following requirement(s):

- Humanities/Fine Arts Gen. Ed. course for A.A., A.A. Teacher Preparation, and A.S.

FRE-211	Intermediate French I	3 (3-0)	Spring Summer
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Prerequisites: FRE-112^S

Corequisites: None

This course provides a review and expansion of the essential skills of the French language. Emphasis is placed on the study of authentic and representative literary and cultural texts. Upon completion, students should be able to communicate effectively, accurately, and creatively about the past, present, and future.(1997 SU) This course has been approved to satisfy the following requirement(s):

- Humanities/Fine Arts Gen. Ed. course for A.A., A.A. Teacher Preparation, and A.S.

FRE-212	Intermediate French II	3 (3-0)	AND
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Prerequisites: FRE-211^S

Corequisites: None

This course is a continuation of FRE 211. Emphasis is placed on the continuing study of authentic and representative literary and cultural texts. Upon completion, students should be able to communicate spontaneously and accurately with increasing complexity and sophistication.(1997 SU) This course has been approved to satisfy the following requirement(s):

- Humanities/Fine Arts Gen. Ed. course for A.A., A.A. Teacher Preparation, and A.S.

GEL GEOLOGY

GEL-111	Geology	4 (3-2)	AND
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Prerequisites: None

Corequisites: None

This course introduces basic landforms and geological processes. Topics include rocks, minerals, volcanoes, fluvial processes, geological history, plate tectonics, glaciers, and coastal dynamics. Upon completion, students should be able to describe basic geological processes that shape the earth.(2014 FA) This course has been approved to satisfy the following requirement(s):

- UGETC course for A.A., A.A. Teacher Preparation, and A.F.A.
- Natural Science Gen. Ed. course for A.S. and A.S. Teacher Preparation
- Other Gen. Ed. And Premajor Elective course for A.E.
- Natural Science Gen. Ed. course for A.A.S. and A.G.E.

GIS GEOGRAPHIC INFO SYSTEMS

GIS-111	Introduction to GIS	3 (2-2)	AND
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Prerequisites: None

Corequisites: None

This course introduces the hardware and software components of a Geographic Information System and reviews GIS applications. Topics include data structures and basic functions, methods of data capture and sources of data, and the nature and characteristics of spatial data and objects. Upon completion, students should be able to identify GIS hardware components, typical operations, products/ applications, and differences between database models and between raster and vector systems.(1997 SU)

GRA GRAPHIC ARTS

GRA-151 Computer Graphics I 2 (1-3) Fall

Prerequisites: None

Corequisites: None

This course introduces the use of hardware and software for production and design in graphic arts. Topics include graphical user interface and current industry uses such as design, layout, typography, illustration, and imaging for production. Upon completion, students should be able to understand and use the computer as a fundamental design and production tool.(1997 SU)

GRD GRAPHIC DESIGN

GRD-167 Photographic Imaging I 3 (1-4) Spring

Prerequisites: None

Corequisites: None

This course introduces basic camera operations and photographic production. Topics include subject composition, depth of field, shutter control, light control, color, photo-finishing, and digital imaging, correction and output. Upon completion, students should be able to produce traditional and/or digital photographic prints with acceptable technical and compositional quality.(2006 SU)

HEA HEALTH

**HEA-112 First Aid & CPR 2 (1-2) Fall
Spring
Summer**

Prerequisites: None

Corequisites: None

This course introduces the basics of emergency first aid treatment. Topics include rescue breathing, CPR, first aid for choking and bleeding, and other first aid procedures. Upon completion, students should be able to demonstrate skills in providing emergency care for the sick and injured until medical help can be obtained.(1997 SU) This course has been approved to satisfy the following requirement(s):

- Premajor and/or Elective course for A.A. and A.S.

HFS HEALTH AND FITNESS SCI

**HFS-110 Exercise Science 4 (4-0) Fall
Spring**

Prerequisites: ENG-002^L or BSP-4002^L

Corequisites: None

This course is a survey of scientific principles, methodologies, and research as applied to exercise and physical adaptations to exercise. Topics include the basic elements of kinesiology, biomechanics, and motor learning. Upon completion, students should be able to identify and describe physiological responses and adaptations to exercise.(2017 FA)

COURSE DESCRIPTIONS

HFS-111	Fitness & Exer Testing I	4 (3-2)	Fall Spring
Prerequisites: ENG-002 ^L or BSP-4002 ^L Corequisites: None This course introduces the student to graded exercise testing. Topics include various exercise testing protocols with methods for prescribing exercise programs based on exercise tolerance tests and the use of various equipment and protocols. Upon completion, students should be able to conduct specific exercise tests and the use of various equipment.(2017 FA)			
HFS-116	Pvnt & Care Exer Injuries	3 (2-2)	Spring
Prerequisites: ENG-002 ^L or BSP-4002 ^L Corequisites: None This course provides information about the care and prevention of exercise injuries. Topics include proper procedures, prevention techniques, and on-site care of injuries. Upon completion, students should be able to demonstrate the knowledge and skills necessary to prevent and care for exercise related injuries. (2017 FA)			
HFS-118	Fitness Facility Mgmt	4 (4-0)	Spring
Prerequisites: None Corequisites: None This course provides information about the management and operation of health and fitness facilities and programs. Topics include human resources, sales and marketing, member retention, financial management, facility design and maintenance, and risk management. Upon completion, students should be able to demonstrate the knowledge and skills necessary to effectively manage a fitness facility.(2017 FA)			
HFS-120	Group Exer Instruction	3 (2-2)	Spring
Prerequisites: HFS-110 ^S Corequisites: None This course introduces the concepts and guidelines of instructing exercise classes. Topics include program designs, working with special populations, and principles of teaching and monitoring physical activity. Upon completion, students should be able to demonstrate basic skills in instructing an exercise class and monitoring workout intensity.(2017 FA)			
HFS-210	Personal Training	3 (2-2)	Spring
Prerequisites: HFS-110 ^S and HFS-111 ^S Corequisites: None This course introduces the student to the aspects of personal (one-on-one) training. Topics include training systems, marketing, and program development. Upon completion, students should be able to demonstrate personal training techniques and competencies of same.(2017 FA)			

HFS-212 Exercise Programming 3 (2-2) Fall
Prerequisites: HFS-110^S**Corequisites:** None

This course provides information about organizing, scheduling, and implementation of physical fitness programs. Topics include programming for various age groups, competitive activities and special events, and evaluating programs. Upon completion, students should be able to organize and implement exercise activities in a competent manner.(2017 FA)

HFS-214 Health and Fitness Law 3 (3-0) Spring
Prerequisites: None**Corequisites:** None

This course is designed to build a greater awareness and understanding of laws and legal issues encountered in the health and fitness industry. Topics include federal/state regulations, historical/current practices, risk management, torts, employment, discrimination, contracts, waivers, health/fitness screening, client confidentiality, facility safety, equipment liability, and emergency procedures. Upon completion, students should be able to demonstrate an understanding of the legal system to prevent or minimize liability in a fitness setting.(2017 FA)

HFS-218 Lifestyle Chng & Wellness 4 (3-2) Fall
Prerequisites: ENG-002^L or BSP-4002^L**Corequisites:** None

This course introduces health risk appraisals and their application to lifestyle changes. Topics include nutrition, weight control, stress management, and the principles of exercise. Upon completion, students should be able to conduct health risk appraisals and apply behavior modification techniques in a fitness setting. (2017 FA)

HIS HISTORY

**HIS-111 World Civilizations I 3 (3-0) Fall
Spring
Summer**
Prerequisites: ENG-002^L or BSP-4002^L**Corequisites:** None

This course introduces world history from the dawn of civilization to the early modern era. Topics include Eurasian, African, American, and Greco-Roman civilizations and Christian, Islamic and Byzantine cultures. Upon completion, students should be able to analyze significant political, socioeconomic, and cultural developments in pre-modern world civilizations.(1997 SU) This course has been approved to satisfy the following requirement(s):

- UGETC course for A.A., A.A. Teacher Preparation, A.E., A.F.A., A.S., and A.S. Teacher Preparation
- Social/Behavioral Science Gen. Ed. course for A.A.S. and A.G.E.

HIS-112	World Civilizations II	3 (3-0)	Fall Spring Summer
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Prerequisites: ENG-002^L or BSP-4002^L

Corequisites: None

This course introduces world history from the early modern era to the present. Topics include the cultures of Africa, Europe, India, China, Japan, and the Americas. Upon completion, students should be able to analyze significant political, socioeconomic, and cultural developments in modern world civilizations. (1997 SU) This course has been approved to satisfy the following requirement(s):

- UGETC course for A.A., A.A. Teacher Preparation, A.E., A.F.A., A.S., and A.S. Teacher Preparation
- Social/Behavioral Science Gen. Ed. course for A.A.S. and A.G.E.

HIS-121	Western Civilization I	3 (3-0)	Fall
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Prerequisites: ENG-002^L or BSP-4002^L

Corequisites: None

This course introduces western civilization from pre-history to the early modern era. Topics include ancient Greece, Rome, and Christian institutions of the Middle Ages and the emergence of national monarchies in western Europe. Upon completion, students should be able to analyze significant political, socioeconomic, and cultural developments in early western civilization. (1997 SU) This course has been approved to satisfy the following requirement(s):

- Social/Behavioral Science Gen. Ed. course for A.A., A.A. Teacher Preparation and A.S.
- Social/Behavioral Science Gen. Ed. course for A.A.S. and A.G.E.

HIS-122	Western Civilization II	3 (3-0)	Spring
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Prerequisites: ENG-002^L or BSP-4002^L

Corequisites: None

This course introduces western civilization from the early modern era to the present. Topics include the religious wars, the Industrial Revolution, World Wars I and II, and the Cold War. Upon completion, students should be able to analyze significant political, socioeconomic, and cultural developments in modern western civilization. (1997 SU) This course has been approved to satisfy the following requirement(s):

- Social/Behavioral Science Gen. Ed. course for A.A., A.A. Teacher Preparation and A.S.
- Social/Behavioral Science Gen. Ed. course for A.A.S. and A.G.E.

HIS-131	American History I	3 (3-0)	Fall Spring Summer
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Prerequisites: ENG-002^L or BSP-4002^L

Corequisites: None

This course is a survey of American history from pre-history through the Civil War era. Topics include the migrations to the Americas, the colonial and revolutionary periods, the development of the Republic, and the Civil War. Upon completion, students should be able to analyze significant political, socioeconomic, and cultural developments in early American history.(1997 SU) This course has been approved to satisfy the following requirement(s):

- UGETC course for A.A., A.A. Teacher Preparation, A.E., A.F.A., A.S., and A.S. Teacher Preparation
- Social/Behavioral Science Gen. Ed. course for A.A.S. and A.G.E.

HIS-132	American History II	3 (3-0)	Fall Spring Summer
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Prerequisites: ENG-002^L or BSP-4002^L

Corequisites: None

This course is a survey of American history from the Civil War era to the present. Topics include industrialization, immigration, the Great Depression, the major American wars, the Cold War, and social conflict. Upon completion, students should be able to analyze significant political, socioeconomic, and cultural developments in American history since the Civil War.(1997 SU) This course has been approved to satisfy the following requirement(s):

- UGETC course for A.A., A.A. Teacher Preparation, A.E., A.F.A., A.S., and A.S. Teacher Preparation
- Social/Behavioral Science Gen. Ed. course for A.A.S. and A.G.E.

HIS-151	Hispanic Civilization	3 (3-0)	Fall
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Prerequisites: ENG-002^L or BSP-4002^L

Corequisites: None

This course surveys the cultural history of Spain and its impact on the New World. Topics include Spanish and Latin American culture, literature, religion, and the arts. Upon completion, students should be able to analyze the cultural history of Spain and Latin America.(1997 SU) This course has been approved to satisfy the following requirement(s):

- Premajor and/or Elective course for A.A. and A.S.
- Social/Behavioral Science Gen. Ed. course for A.A.S. and A.G.E.

HIS-221	African-American History	3 (3-0)	Spring
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Prerequisites: ENG-002^L or BSP-4002^L

Corequisites: None

This course covers African-American history from the Colonial period to the present. Topics include African origins, the slave trade, the Civil War, Reconstruction, the Jim Crow era, the civil rights movement, and contributions of African Americans. Upon completion, students should be able to analyze significant political, socioeconomic, and cultural developments in the history of African Americans.(1997 SU) This course has been approved to satisfy the following requirement(s):

- Premajor and/or Elective course for A.A. and A.S.
- Social/Behavioral Science Gen. Ed. course for A.A.S. and A.G.E.

HOR HORTICULTURE

HOR-112 Landscape Design I 3 (2-3) Fall
Prerequisites: HOR-160^L, MAT-110^L, MAT-121^L, MAT-143^L, MAT-152^L, or MAT-171^L
Corequisites: None

This course covers landscape principles and practices for residential and commercial sites. Emphasis is placed on drafting, site analysis, and common elements of good design, plant material selection, and proper plant utilization (encouraged use of native plants and discouraged use of invasive species). Upon completion, students should be able to read plans and draft a landscape design according to sustainable practices.(2013 FA)

HOR-114 Landscape Construction 3 (2-2) Spring
Prerequisites: MAT-110^L, MAT-121^L, MAT-143^L, MAT-152^L, or MAT-171^L
Corequisites: None

This course introduces the design and fabrication of landscape structures/features. Emphasis is placed on safety, tool identification and use, material selection, construction techniques, and fabrication. Upon completion, students should be able to design and construct common landscape structures/features.(1997 SU)

HOR-134 Greenhouse Operations 3 (2-2) Spring
Prerequisites: None
Corequisites: None

This course covers the principles and procedures involved in the operation and maintenance of greenhouse facilities. Emphasis is placed on the operation of greenhouse systems, including the environmental control, record keeping, scheduling, and production practices. Upon completion, students should be able to demonstrate the ability to operate greenhouse systems and facilities to produce greenhouse crops.(1997 SU)

HOR-142 Fruit & Vegetable Prod 2 (1-2) Summer
Prerequisites: None
Corequisites: None

This course introduces the principles and techniques of growing fruits and field-grown vegetables. Topics include site selection, proper varietal selection, nutritional values, cultural techniques, harvesting and marketing, and insect and disease control. Upon completion, students should be able to demonstrate an understanding of the principles related to the production of selected fruits and vegetables.(1997 SU)

HOR-160 Plant Materials I 3 (2-2) Fall
Prerequisites: None
Corequisites: None

This course covers identification, culture, characteristics, and use of plants in a sustainable landscape. Emphasis is placed on nomenclature, identification, growth requirements, cultural requirements, soil preferences, and landscape applications. Upon completion, students should be able to demonstrate knowledge of the proper selection and utilization of plant materials, including natives and invasive plants.(2013 FA)

HOR-161 Plant Materials II 3 (2-2) Spring**Prerequisites:** HOR-160^L**Corequisites:** None

This course provides a supplementary opportunity to cover identification, culture, characteristics, and use of plants in a sustainable landscape, giving students a broader knowledge of available landscape plants for utilization in landscapes and plant production. Emphasis is placed on nomenclature, identification, growth requirements, cultural requirements, soil preferences, landscape applications and expansion of the plant palette. Upon completion, students should be able to demonstrate knowledge of the proper selection and utilization of plant materials, including natives and invasive plants. 2015 FA

HOR-164 Hort Pest Management 3 (2-2) Spring**Prerequisites:** TRF-110^L and HOR-160^L**Corequisites:** None

This course covers the identification and management of plant pests including insects, diseases, and weeds. Topics include pest identification and beneficial organisms, pesticide application safety and use of least toxic methods of management. Upon completion, students should be able to manage common landscape pests using least toxic methods of control and be prepared to sit for North Carolina Commercial Pesticide Ground Applicators license. (2013 FA)

HOR-166 Soils & Fertilizers 3 (2-2) Spring**Prerequisites:** MAT-110^L, MAT-121^L, MAT-143^L, MAT-152^L, or MAT-171^L**Corequisites:** None

This course covers the physical and chemical properties of soils and soil fertility and management. Topics include soil formation classification physical, chemical, and biological properties (including microorganisms) testing and fertilizer application. Upon completion, students should be able to analyze, evaluate, and properly amend soils/media according to sustainable practices. (2013 FA)

HOR-168 Plant Propagation 3 (2-2) Fall**Prerequisites:** HOR-160^L, LSG-111^L**Corequisites:** None

This course is a study of sexual and asexual reproduction of plants. Emphasis is placed on seed propagation, grafting, stem and root propagation, micro-propagation, and other propagation techniques. Upon completion, students should be able to successfully propagate ornamental plants. (1997 SU)

HOR-213 Landscape Design II 3 (2-2) Spring**Prerequisites:** HOR-112^S, HOR-161^L**Corequisites:** None

This course covers residential and commercial landscape design, cost analysis, and installation. Emphasis is placed on job cost estimates, installation of the landscape design, and maintenance techniques. Upon completion, students should be able to read landscape design blueprints, develop cost estimates, and implement the design. (1997 SU)

COURSE DESCRIPTIONS

HOR-215 Landscape Irrigation 3 (2-2) Spring

Prerequisites: HOR-160^L, LSG-111^L, TRF-110^L; MAT-110^L, MAT-121^L, MAT-143^L, MAT-152^L or MAT-171^L

Corequisites: None

This course introduces basic irrigation design, layout, and installation. Topics include site analysis, components of irrigation systems, safety, types of irrigation systems, and installation techniques. Upon completion, students should be able to design and install basic landscape irrigation systems.(1997 SU)

HOR-225 Nursery Production 3 (2-2) Spring

Prerequisites: HOR-161^L

Corequisites: None

This course covers all aspects of nursery crop production. Emphasis is placed on field production and covers soils, nutrition, irrigation, pest control, and harvesting. Upon completion, students should be able to produce a marketable nursery crop. (2009 SP)

HOR-235 Greenhouse Production 3 (2-2) Fall

Prerequisites: HOR-134^L

Corequisites: None

This course covers the production of greenhouse crops. Emphasis is placed on product selection and production based on market needs and facility availability, including record keeping. Upon completion, students should be able to select and make production schedules to successfully produce greenhouse crops.(1997 SU)

HOR-257 Arboriculture Practices 2 (1-3) Spring

Prerequisites: HOR-160^L

Corequisites: None

This course covers the culture and maintenance of trees and shrubs. Topics include fertilization, pruning, approved climbing techniques, pest control, and equipment use and safety. Upon completion, students should be able to properly prune trees and shrubs and perform arboricultural practices.(2013 SU)

HOR-265 Advanced Plant Materials 2 (1-2) Summer

Prerequisites: HOR-161^L

Corequisites: None

This course covers important landscape plants. Emphasis is placed on identification, plant nomenclature, growth characteristics, cultural requirements, and landscape uses. Upon completion, students should be able to correctly select plants for specific landscape uses.(2001 FA)

HRM HOTEL & RESTAURANT MGMT

HRM-220 Cost Control-Food & Bev 3 (3-0) Spring

Prerequisites: ENG-002^L or BSP-4002^L

Corequisites: None

This course introduces controls and accounting procedures as applied to costs in the hospitality industry. Topics include reports, cost control, planning and forecasting, control systems, financial statements, operational efficiencies, labor controls and scheduling. Upon completion, students should be able to demonstrate an understanding of food, beverage, and labor cost control systems for operational troubleshooting and problem solving.(2011 FA)

HRM-230 Club & Resort Management 3 (3-0) Spring

Prerequisites: None

Corequisites: None

This course introduces specific principles of managing a hospitality operation in a resort or club setting. Topics include operational efficiencies, resort and club marketing, recreational and sport activity management, and retail management. Upon completion, students should be able to demonstrate an understanding of the specialized skills involved in resort and club management.(2011 FA)

HRM-245 Human Resource Mgmt-Hosp 3 (3-0) Spring

Prerequisites: ENG-002^L or BSP-4002^L

Corequisites: None

This course introduces a systematic approach to human resource management in the hospitality industry. Topics include training/development, staffing, selection, hiring, recruitment, evaluation, benefit administration, employee relations, labor regulations/laws, discipline, motivation, productivity, shift management, contract employees and organizational culture. Upon completion, students should be able to apply human resource management skills for the hospitality industry.(2011 FA)

HRM-275 Leadership-Hospitality 3 (3-0) Fall

Prerequisites: None

Corequisites: None

This course introduces leadership traits, styles, and the roles and responsibilities of successful hospitality leaders while developing the student's personal leadership skills. Topics include formal and informal hospitality leadership defining effective and ineffective leadership behavior and leadership organizational change and planning within the hospitality industry. Upon completion, students will be able to apply appropriate leadership actions in real-world situations ranging from local to global hospitality environments.(2011 FA)

HUM HUMANITIES

HUM-110	Technology and Society	3 (3-0)	Fall Spring Summer
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Prerequisites: ENG-002^L or BSP-4002^L

Corequisites: None

This course considers technological change from historical, artistic, and philosophical perspectives and its effect on human needs and concerns. Emphasis is placed on the causes and consequences of technological change. Upon completion, students should be able to critically evaluate the implications of technology.(1997 SU) This course has been approved to satisfy the following requirement(s):

- Humanities/Fine Arts Gen. Ed. course for A.A., A.A. Teacher Preparation and A.S.
- Other Gen. Ed. and Premajor Elective course for A.E.
- Humanities/Fine Arts Gen. Ed. course for A.A.S. and A.G.E.

HUM-115	Critical Thinking	3 (3-0)	Fall Spring Summer
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Prerequisites: ENG-002^S or BSP-4002^S

Corequisites: None

This course introduces the use of critical thinking skills in the context of human conflict. Emphasis is placed on evaluating information, problem solving, approaching cross-cultural perspectives, and resolving controversies and dilemmas. Upon completion, students should be able to demonstrate orally and in writing the use of critical thinking skills in the analysis of appropriate texts.(2020 FA) This course has been approved to satisfy the following requirement(s):

- Humanities/Fine Arts Gen. Ed. course for A.A., A.A. Teacher Preparation and A.S.
- Humanities/Fine Arts Gen. Ed. course for A.A.S. and A.G.E.

HUM-120	Cultural Studies	3 (3-0)	AND
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Prerequisites: None

Corequisites: None

This course introduces the distinctive features of a particular culture. Topics include art, history, music, literature, politics, philosophy, and religion. Upon completion, students should be able to appreciate the unique character of the study culture.(1997 SU) This course has been approved to satisfy the following requirement(s):

- Humanities/Fine Arts Gen. Ed. course for A.A., A.A. Teacher Preparation and A.S.
- Humanities/Fine Arts Gen. Ed. course for A.A.S. and A.G.E.

HUM-122	Southern Culture	3 (3-0)	Fall Spring Summer
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Prerequisites: ENG-002^L or BSP-4002^L

Corequisites: None

This course explores the major qualities that make the South a distinct region. Topics include music, politics, literature, art, religion, race relations, and the role of social class in historical and contemporary contexts. Upon completion, students should be able to identify the characteristics that distinguish Southern culture.

(1997 SU) This course has been approved to satisfy the following requirement(s):

- Humanities/Fine Arts Gen. Ed. course for A.A., A.A. Teacher Preparation and A.S.
- Humanities/Fine Arts Gen. Ed. course for A.A.S. and A.G.E.

HUM-130	Myth in Human Culture	3 (3-0)	Fall Spring Summer
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Prerequisites: ENG-002^L or BSP-4002^L

Corequisites: None

This course provides an in-depth study of myths and legends. Topics include the varied sources of myths and their influence on the individual and society within diverse cultural contexts. Upon completion, students should be able to demonstrate a general familiarity with myths and a broad-based understanding of the influence of myths and legends on modern culture.(1997 SU) This course has been approved to satisfy the following requirement(s):

- Humanities/Fine Arts Gen. Ed. course for A.A., A.A. Teacher Preparation and A.S.
- Humanities/Fine Arts Gen. Ed. course for A.A.S. and A.G.E.

HUM-150	American Women's Studies	3 (3-0)	AND
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Prerequisites: ENG-002^L or BSP-4002^L

Corequisites: None

This course provides an inter-disciplinary study of the history, literature, and social roles of American women from Colonial times to the present. Emphasis is placed on women's roles as reflected in American language usage, education, law, the workplace, and mainstream culture. Upon completion, students should be able to identify and analyze the roles of women as reflected in various cultural forms.(1997 SU) This course has been approved to satisfy the following requirement(s):

- Humanities/Fine Arts Gen. Ed. course for A.A., A.A. Teacher Preparation and A.S.
- Humanities/Fine Arts Gen. Ed. course for A.A.S. and A.G.E.

HUM-160	Introduction to Film	3 (2-2)	Fall Spring Summer
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Prerequisites: ENG-111^L

Corequisites: None

This course introduces the fundamental elements of film artistry and production. Topics include film styles, history, and production techniques, as well as the social values reflected in film art. Upon completion, students should be able to critically analyze the elements covered in relation to selected films.(1999 FA) This course has been approved to satisfy the following requirement(s):

- Humanities/Fine Arts Gen. Ed. course for A.A., A.A. Teacher Preparation and A.S.
- Humanities/Fine Arts Gen. Ed. course for A.A.S. and A.G.E.

HUM-161	Advanced Film Studies	3 (2-2)	AND
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Prerequisites: HUM-160^S

Corequisites: None

This course provides an advanced study of film art and production, building on skills learned in HUM 160. Topics include advanced film production techniques, film genres, examination of master directors' styles, and the relation of film to culture. Upon completion, students should be able to recognize and critically analyze advanced elements of film production.(2002 SP) This course has been approved to satisfy the following requirement(s):

- Humanities/Fine Arts Gen. Ed. course for A.A., A.A. Teacher Preparation and A.S.
- Humanities/Fine Arts Gen. Ed. course for A.A.S. and A.G.E.

HUM-170	The Holocaust	3 (3-0)	Fall
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Prerequisites: ENG-002^L or BSP-4002^L

Corequisites: None

This course provides a survey of the destruction of European Jewry by the Nazis during World War II. Topics include the anti-Semitic ideology, bureaucratic structures, and varying conditions of European occupation and domination under the Third Reich. Upon completion, students should be able to demonstrate an understanding of the historical, social, religious, political, and economic factors which cumulatively resulted in the Holocaust.(1997 SU) This course has been approved to satisfy the following requirement(s):

- Premajor and/or Elective course for A.A. and A.S.
- Humanities/Fine Arts Gen. Ed. course for A.A.S. and A.G.E.

HUM-180	Internat Cultural Explor	3 (2-3)	AND
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Prerequisites: None

Corequisites: None

This course provides a framework for students to visit, examine, and analyze a country/region outside the United States to learn about the place and people. Emphasis is placed on the distinctive cultural characteristics of a country or region. Upon completion, students should be able to identify similarities/differences, analyze causes/effects, and clearly articulate the impact of one or more cultural elements.(2009 SP) This course has been approved to satisfy the following requirement(s):

- Premajor and/or Elective course for A.A. and A.S.

HUM-211 Humanities I 3 (3-0) AND**Prerequisites:** ENG-111^S**Corequisites:** None

This course introduces the humanities as a record in literature, music, art, history, religion, and philosophy of humankind's answers to the fundamental questions of existence. Emphasis is placed on the interconnectedness of various aspects of cultures from ancient through early modern times. Upon completion, students should be able to identify significant figures and cultural contributions of the periods studied.(1997 SU) This course has been approved to satisfy the following requirement(s):

- Humanities/Fine Arts Gen. Ed. course for A.A., A.A. Teacher Preparation and A.S.
- Humanities/Fine Arts Gen. Ed. course for A.A.S. and A.G.E.

HUM-212 Humanities II 3 (3-0) AND**Prerequisites:** ENG-111^S**Corequisites:** None

This course introduces the humanities as a record in literature, music, art, history, religion, and philosophy of humankind's answers to the fundamental questions of existence. Emphasis is placed on the interconnectedness of various aspects of cultures from early modern times to the present. Upon completion, students should be able to identify significant figures and cultural contributions of the periods studied.(1997 SU) This course has been approved to satisfy the following requirement(s):

- Humanities/Fine Arts Gen. Ed. course for A.A., A.A. Teacher Preparation and A.S.
- Humanities/Fine Arts Gen. Ed. course for A.A.S. and A.G.E.

HUM-220 Human Values and Meaning 3 (3-0) AND**Prerequisites:** ENG-111^S**Corequisites:** None

This course presents some major dimensions of human experience as reflected in art, music, literature, philosophy, and history. Topics include the search for identity, the quest for knowledge, the need for love, the individual and society, and the meaning of life. Upon completion, students should be able to recognize interdisciplinary connections and distinguish between open and closed questions and between narrative and scientific models of understanding.(1997 SU) This course has been approved to satisfy the following requirement(s):

- Humanities/Fine Arts Gen. Ed. course for A.A., A.A. Teacher Preparation and A.S.
- Humanities/Fine Arts Gen. Ed. course for A.A.S. and A.G.E.

COURSE DESCRIPTIONS

HUM-230	Leadership Development	3 (3-0)	Fall Spring
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Prerequisites: ENG-111^S**Corequisites:** None

This course explores the theories and techniques of leadership and group process. Emphasis is placed on leadership styles, theories of group dynamics, and the moral and ethical responsibilities of leadership. Upon completion, students should be able to identify and analyze a personal philosophy and style of leadership and integrate these concepts in various practical situations.(1997 SU) This course has been approved to satisfy the following requirement(s):

- Premajor and/or Elective course for A.A. and A.S.
- Humanities/Fine Arts Gen. Ed. course for A.A.S. and A.G.E.

LDD LIGHT DUTY DIESEL

LDD-112	Intro Light-Duty Diesel	3 (2-2)	AND
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Prerequisites: None**Corequisites:** None

This course covers the history, evolution, basic design and operational parameters for light-duty diesel (LDD) engines used in on-road applications. Topics include familiarization with the light-duty diesel, safety procedures, engine service and maintenance procedures, and introduction to combustion and emission chemistry. Upon completion, students should be able to describe the design and operation of the LDD, perform basic service operations, and demonstrate proper safety procedures.(2013 FA)

LDD-181	Ldd Fuel Systems	4 (2-6)	AND
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Prerequisites: None**Corequisites:** None

This course covers the light-duty diesel fuel delivery systems in on-road applications including hydraulic electronically controlled unit injectors, common-rail, mechanical pumps, and emerging technologies. Topics include diesel combustion theory, fuel system components, electronic and mechanical controls, and fuel types and chemistries that are common to the light-duty diesel engines. Upon completion, students should be able to demonstrate skills necessary to inspect, test, and replace fuel delivery components using appropriate service information and tools.(2013 FA)

LSG LANDSCAPE GARDENING

LSG-111	Basic Landscape Technique	2 (2-0)	Fall
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Prerequisites: None**Corequisites:** None

This course introduces basic principles essential to sustainable landscape gardening. Topics include soils, propagation, watering, fertilizing, pruning, pest control, and planting. Upon completion, students should be able to perform basic sustainable gardening techniques essential to maintaining a sustainable landscape. (2013 FA)

LSG-121	Fall Gardening Lab	2 (0-6)	Fall
Prerequisites:	None		
Corequisites:	LSG-111 ^L		
<p>This course provides basic hands-on experience in fall gardening techniques. Emphasis is placed on pruning, irrigation, planting, fertilizing, pest control, equipment operation, and turf maintenance. Upon completion, students should be able to perform various techniques essential to maintaining the fall landscape. (2001 FA)</p>			
LSG-122	Spring Gardening Lab	2 (0-6)	Spring
Prerequisites:	LSG-121 ^L		
Corequisites:	None		
<p>This course provides familiarization with basic gardening techniques by performing practical hands-on exercises required for the spring season. Emphasis is placed on pruning, irrigation, planting, fertilizing, pest control, equipment operation, turf maintenance, and landscape construction. Upon completion, students should be able to satisfactorily perform various practices essential to maintaining the landscape in the spring season.(2001 FA)</p>			
LSG-123	Summer Gardening Lab	2 (0-6)	Summer
Prerequisites:	LSG-122 ^L		
Corequisites:	None		
<p>This course provides basic hands-on experience in summer gardening techniques. Emphasis is placed on pruning, irrigation, planting, fertilizing, pest control, equipment operation, turf maintenance, landscape construction, and maintaining fruits and vegetables. Upon completion, students should be able to perform various techniques essential to maintaining the summer landscape.(2001 FA)</p>			
LSG-231	Landscape Supervision	4 (2-6)	Fall
Prerequisites:	LSG-123 ^S and HOR-161 ^S		
Corequisites:	None		
<p>This course provides experience in planning, implementing, and supervising various landscape management projects. Emphasis is placed on supervisory skills, organizing, and scheduling. Upon completion, students should be able to supervise employees in various landscape management jobs.(2014 FA)</p>			
LSG-244	Advanced Issues/LSG	2 (2-0)	Spring
Prerequisites:	None		
Corequisites:	None		
<p>This course covers advanced topics and issues in landscape gardening. Emphasis is placed on current issues, emerging technology, professional growth experiences, and other related topics. Upon completion, students should be able to demonstrate an understanding of advanced topics and critically analyze issues in landscape gardening.(2008 SP)</p>			

MAT MATHEMATICS

MAT-003	Transition Math	3 (0-6)	Fall Spring Summer
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Prerequisites: None**Corequisites:** ACA-090^L

This course provides an opportunity to customize foundational math content in specific math areas and will include developing a growth mindset. Topics include developing the academic habits, learning strategies, social skills, and growth mindset necessary to be successful in mathematics. Upon completion, students should be able to build a stronger foundation for success in their gateway level math courses by obtaining skills through a variety of instructional strategies with emphasis placed on the most essential prerequisite knowledge.(2018 FA)

MAT-010	Math Measurement & Literacy Su	1 (0-2)	Fall
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Prerequisites: None**Corequisites:** MAT-110^L

This course provides an opportunity to customize foundational math content specific to Math Measurement & Literacy. Topics include developing the academic habits, learning strategies, social skills, and growth mindset necessary to be successful in mathematics. Upon completion, students should be able to build a stronger foundation for success in Math Measurement & Literacy by obtaining skills through a variety of instructional strategies with emphasis placed on the most essential prerequisite knowledge.(2018 FA)

MAT-021	Algebra/Trigonometry I Support	2 (1-2)	Spring Summer
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Prerequisites: None**Corequisites:** MAT-121^L

This course provides an opportunity to customize foundational math content specific to Algebra and Trigonometry I. Topics include developing the academic habits, learning strategies, social skills, and growth mindset necessary to be successful in mathematics. Upon completion, students should be able to build a stronger foundation for success in Algebra/Trigonometry I by obtaining skills through a variety of instructional strategies with emphasis placed on the most essential prerequisite knowledge.(2018 FA)

MAT-043	Quantitative Literacy Support	2 (1-2)	Fall Spring Summer
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Prerequisites: None**Corequisites:** MAT-143^L

This course provides an opportunity to customize foundational math content specific to Quantitative Literacy. Topics include developing the academic habits, learning strategies, social skills, and growth mindset necessary to be successful in mathematics. Upon completion, students should be able to build a stronger foundation for success in Quantitative Literacy by obtaining skills through a variety of instructional strategies with emphasis placed on the most essential prerequisite knowledge.(2018 FA)

MAT-052	Statistical Methods I Support	2 (1-2)	Fall Spring
Prerequisites: None Corequisites: MAT-152 ^L This course provides an opportunity to customize foundational math content specific to Statistical Methods I. Topics include developing the academic habits, learning strategies, social skills, and growth mindset necessary to be successful in mathematics. Upon completion, students should be able to build a stronger foundation for success in Statistical Methods I by obtaining skills through a variety of instructional strategies with emphasis placed on the most essential prerequisite knowledge.(2018 FA)			
MAT-071	Precalculus Algebra Support	2 (0-4)	Fall Spring
Prerequisites: None Corequisites: MAT-171 ^L This course provides an opportunity to customize foundational math content specific to Precalculus Algebra. Topics include developing the academic habits, learning strategies, social skills, and growth mindset necessary to be successful in mathematics. Upon completion, students should be able to build a stronger foundation for success in Precalculus Algebra by obtaining skills through a variety of instructional strategies with emphasis placed on the most essential prerequisite knowledge.(2018 FA)			
MAT-110	Math Measurement & Literacy	3 (2-2)	Fall
Prerequisites: MAT-003 ^S or BSP-4003 ^S Corequisites: MAT-010 ^S This course provides an activity-based approach that develops measurement skills and mathematical literacy using technology to solve problems for non-math intensive programs. Topics include unit conversions and estimation within a variety of measurement systems ratio and proportion basic geometric concepts financial literacy and statistics including measures of central tendency, dispersion, and charting of data. Upon completion, students should be able to demonstrate the use of mathematics and technology to solve practical problems, and to analyze and communicate results.(2020 FA)			
MAT-121	Algebra/Trigonometry I	3 (2-2)	Spring Summer
Prerequisites: MAT-003 ^S or BSP-4003 ^S , minimum grade P2S Corequisites: MAT-021 ^S This course provides an integrated approach to technology and the skills required to manipulate, display, and interpret mathematical functions and formulas used in problem solving. Topics include the properties of plane and solid geometry, area and volume, and basic proportion applications simplification, evaluation, and solving of algebraic equations and inequalities and radical functions complex numbers right triangle trigonometry and systems of equations. Upon completion, students will be able to demonstrate the ability to use mathematics and technology for problem-solving, analyzing and communicating results.(2020 FA) This course has been approved to satisfy the following requirement(s): <ul style="list-style-type: none"> • Mathematics Gen. Ed. course for A.A.S. and A.G.E. 			

COURSE DESCRIPTIONS

MAT-143	Quantitative Literacy	3 (2-2)	Fall Spring Summer
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Prerequisites: MAT-003^S or BSP-4003^S; ENG-002^S or BSP-4002^S

Corequisites: MAT-043^S

This course is designed to engage students in complex and realistic situations involving the mathematical phenomena of quantity, change and relationship, and uncertainty through project- and activity-based assessment. Emphasis is placed on authentic contexts which will introduce the concepts of numeracy, proportional reasoning, dimensional analysis, rates of growth, personal finance, consumer statistics, practical probabilities, and mathematics for citizenship. Upon completion, students should be able to utilize quantitative information as consumers and to make personal, professional, and civic decisions by decoding, interpreting, using, and communicating quantitative information found in modern media and encountered in everyday life.(2020 FA) This course has been approved to satisfy the following requirement(s):

- UGETC course for A.A., A.A. Teacher Preparation, and A.F.A.
- Mathematics Gen. Ed. course for A.S. and A.S. Teacher Preparation
- Mathematics Gen. Ed. course for A.A.S. and A.G.E.

MAT-152	Statistical Methods I	4 (3-2)	Fall Spring Summer
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Prerequisites: MAT-003^S or BSP-4003^S; ENG-002^S or BSP-4002^S

Corequisites: MAT-052^S

This course provides a project-based approach to introductory statistics with an emphasis on using real-world data and statistical literacy. Topics include descriptive statistics, correlation and regression, basic probability, discrete and continuous probability distributions, confidence intervals and hypothesis testing. Upon completion, students should be able to use appropriate technology to describe important characteristics of a data set, draw inferences about a population from sample data, and interpret and communicate results.(2020 FA) This course has been approved to satisfy the following requirement(s):

- UGETC course for A.A., A.A. Teacher Preparation and A.F.A. (visual arts and theatre)
- Mathematics Gen. Ed. course for A.S. and A.S. Teacher Preparation
- Mathematics Gen. Ed. course for A.A.S. and A.G.E.

MAT-171	Precalculus Algebra	4 (3-2)	Fall Spring Summer
Prerequisites: MAT-003 ^S or BSP-4003 ^S , minimum grade P2S or MAT-121, minimum grade CS Corequisites: MAT-071 ^S This course is designed to develop topics which are fundamental to the study of Calculus. Emphasis is placed on solving equations and inequalities, solving systems of equations and inequalities, and analysis of functions (absolute value, radical, polynomial, rational, exponential, and logarithmic) in multiple representations. Upon completion, students should be able to select and use appropriate models and techniques for finding solutions to algebra-related problems with and without technology.(2020 FA) This course has been approved to satisfy the following requirement(s): <ul style="list-style-type: none"> • UGETC course for A.A., A.A. Teacher Preparation, A.F.A. (visual arts and theatre), A.S. and A.S. Teacher Preparation • Mathematics Gen. Ed. course for A.A.S. and A.G.E. 			
MAT-172	Precalculus Trigonometry	4 (3-2)	Fall Spring Summer
Prerequisites: MAT-171 ^S , minimum grade CL Corequisites: None This course is designed to develop an understanding of topics which are fundamental to the study of Calculus. Emphasis is placed on the analysis of trigonometric functions in multiple representations, right and oblique triangles, vectors, polar coordinates, conic sections, and parametric equations. Upon completion, students should be able to select and use appropriate models and techniques for finding solutions to trigonometry-related problems with and without technology.(2014 FA) This course has been approved to satisfy the following requirement(s): <ul style="list-style-type: none"> • UGETC course for A.S. and A.S. Teacher Preparation • Mathematics Gen. Ed. course for A.A. and A.A. Teacher Preparation 			
MAT-263	Brief Calculus	4 (3-2)	Fall Spring Summer
Prerequisites: MAT-171 ^S , minimum grade CL Corequisites: None This course is designed to introduce concepts of differentiation and integration and their applications to solving problems. Topics include graphing, differentiation, and integration with emphasis on applications drawn from business, economics, and biological and behavioral sciences. Upon completion, students should be able to demonstrate an understanding of the use of basic calculus and technology to solve problems and to analyze and communicate results.(2014 FA) This course has been approved to satisfy the following requirement(s): <ul style="list-style-type: none"> • UGETC course for A.S. and A.S. Teacher Preparation • Mathematics Gen. Ed. course for A.A. and A.A. Teacher Preparation 			

MAT-271	Calculus I	4 (3-2)	Fall Spring Summer
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Prerequisites: MAT-172^S, minimum grade CL

Corequisites: None

This course is designed to develop the topics of differential and integral calculus. Emphasis is placed on limits, continuity, derivatives and integrals of algebraic and transcendental functions of one variable. Upon completion, students should be able to select and use appropriate models and techniques for finding solutions to derivative-related problems with and without technology.(2014 FA) This course has been approved to satisfy the following requirement(s):

- UGETC course for A.E., A.S. and A.S. Teacher Preparation
- Mathematics Gen. Ed. course for A.A. and A.A. Teacher Preparation
- A student may place directly into MAT 271 if the student has met at least one (1) of the following criteria within the past five (5) years:
 1. A score of 2 or higher on the AP Calculus AB Exam.
 2. A grade of C or higher in an AP Calculus course and an unweighted HS GPA of 3.0 or higher.
 3. A score of 90 or higher on the ACCUPLACER College-Level Math (CLM) test.
 4. A score of 46 or higher on the trigonometry section of the ACT Compass Math Placement Test.
 5. A score of 580 or higher on the old (prior to March 2016) SAT Math and a grade of C or higher in the North Carolina Standard Course of Study Pre-Calculus course or an equivalent course from another state.
 6. A score of 600 or higher on the new (March 2016 and beyond) SAT Math and a grade of C or higher in the North Carolina Standard Course of Study Pre-Calculus course or an equivalent course from another state.
 6. A score of 600 or higher on the new (March 2016 and beyond) SAT Math and a grade of C or higher in the North Carolina Standard Course of Study Pre-Calculus course or an equivalent course from another state.
 7. A score of 24 or higher on the ACT Math and a grade of C or higher in the North Carolina Standard Course of Study Pre-Calculus course or an equivalent course from another state.
 8. A score of 560 or higher on the SAT Subject Test in Mathematics Level 2.
 9. Local diagnostic exam or challenge exam which demonstrates proficiency in Pre-Calculus course(s) competencies.
 10. An unweighted HS GPA of 3.5 or higher and a grade of C or higher in the North Carolina Standard Course of Study Pre-Calculus course or an equivalent course from another state.

MAT-272	Calculus II	4 (3-2)	Fall Spring
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Prerequisites: MAT-271^S, minimum grade CL

Corequisites: None

This course is designed to develop advanced topics of differential and integral calculus. Emphasis is placed on the applications of definite integrals, techniques of integration, indeterminate forms, improper integrals, infinite series, conic sections, parametric equations, polar coordinates, and differential equations. Upon completion, students should be able to select and use appropriate models and techniques for finding solutions to integral-related problems with and without technology.(2014 FA) This course has been approved to satisfy the following requirement(s):

- UGETC course for A.E., A.S. and A.S. Teacher Preparation
- Mathematics Gen. Ed. course for A.A. and A.A. Teacher Preparation

MAT-273	Calculus III	4 (3-2)	Spring
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Prerequisites: MAT-272^S, minimum grade CL

Corequisites: None

This course is designed to develop the topics of multivariate calculus. Emphasis is placed on multivariate functions, partial derivatives, multiple integration, solid analytical geometry, vector valued functions, and line and surface integrals. Upon completion, students should be able to select and use appropriate models and techniques for finding the solution to multivariate-related problems with and without technology.(2014 FA) This course has been approved to satisfy the following requirement(s):

- Mathematics Gen. Ed. course for A.A., A.A. Teacher Preparation, A.E., A.S. and A.S. Teacher Preparation

MAT-285	Differential Equations	3 (2-2)	Spring
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Prerequisites: MAT-272^S, minimum grade CL

Corequisites: None

This course provides an introduction to topics involving ordinary differential equations. Emphasis is placed on the development of abstract concepts and applications for first-order and linear higher-order differential equations, systems of differential equations, numerical methods, series solutions, eigenvalues and eigenvectors, and LaPlace transforms. Upon completion, students should be able to demonstrate understanding of the theoretical concepts and select and use appropriate models and techniques for finding solutions to differential equations-related problems with and without technology.(2014 FA) This course has been approved to satisfy the following requirement(s):

- Premajor and/or Elective course for A.A. and A.S.
- Other Gen. Ed. and Premajor Elective Hour course for A.E.

MED MEDICAL ASSISTING

MED-120	Survey of Med Terminology	2 (2-0)	Fall Spring Summer
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Prerequisites: None**Corequisites:** None

This course introduces the vocabulary, abbreviations, and symbols used in the language of medicine. Emphasis is placed on building medical terms using prefixes, suffixes, and word roots. Upon completion, students should be able to pronounce, spell, and define accepted medical terms.(1997 SU)

MED-121	Medical Terminology I	3 (3-0)	Fall Spring
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Prerequisites: ENG-002^L or BSP-4002^L**Corequisites:** None

This course introduces prefixes, suffixes, and word roots used in the language of medicine. Topics include medical vocabulary and the terms that relate to the anatomy, physiology, pathological conditions, and treatment of selected systems. Upon completion, students should be able to pronounce, spell, and define medical terms as related to selected body systems and their pathological disorders.(1997 SU)

MED-122	Medical Terminology II	3 (3-0)	Spring
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Prerequisites: MED-121^S**Corequisites:** None

This course is the second in a series of medical terminology courses. Topics include medical vocabulary and the terms that relate to the anatomy, physiology, pathological conditions, and treatment of selected systems. Upon completion, students should be able to pronounce, spell, and define medical terms as related to selected body systems and their pathological disorders.(1997 SU)

MKT MARKETING AND RETAILING

MKT-120	Principles of Marketing	3 (3-0)	Fall Spring
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Prerequisites: ENG-002^L or BSP-4002^L**Corequisites:** None

This course introduces principles and problems of marketing goods and services. Topics include promotion, placement, and pricing strategies for products. Upon completion, students should be able to apply marketing principles in organizational decision making.(2015 FA)

MKT-223	Customer Service	3 (3-0)	Fall
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Prerequisites: None**Corequisites:** None

This course stresses the importance of customer relations in the business world. Emphasis is placed on learning how to respond to complex customer requirements and to efficiently handle stressful situations. Upon completion, students should be able to demonstrate the ability to handle customer relations.(1997 SU)

MLT MEDICAL LABORATORY TECH

MLT-110 Intro to MLT**3 (2-3) Fall****Prerequisites:** None**Corequisites:** None

This course introduces all aspects of the medical laboratory profession. Topics include health care/laboratory organization, professional ethics, basic laboratory techniques, safety, quality assurance, and specimen collection. Upon completion, students should be able to demonstrate a basic understanding of laboratory operations and be able to perform basic laboratory skills.(1997 SU)

MLT-111 Urinalysis & Body Fluids**2 (1-3) Summer****Prerequisites:** None**Corequisites:** None

This course introduces the laboratory analysis of urine and body fluids. Topics include physical, chemical, and microscopic examination of the urine and body fluids. Upon completion, students should be able to demonstrate theoretical comprehension in performing and interpreting urinalysis and body fluid tests.(1997 SU)

MLT-120 Hematology/Hemostasis I**4 (3-3) Spring****Prerequisites:** None**Corequisites:** None

This course introduces the theory and technology used in analyzing blood cells and the study of hemostasis. Topics include hematology, hemostasis, and related laboratory testing. Upon completion, students should be able to demonstrate theoretical comprehension of hematology/hemostasis, perform diagnostic techniques, and correlate laboratory findings with disorders.(1997 SU)

MLT-126 Immunology and Serology**2 (1-2) Fall****Prerequisites:** None**Corequisites:** None

This course introduces the immune system and response and basic concepts of antigens, antibodies, and their reactions. Emphasis is placed on basic principles of immunologic and serodiagnostic techniques and concepts of cellular and humoral immunity in health and disease. Upon completion, students should be able to demonstrate theoretical comprehension and application in performing and interpreting routine immunologic and serodiagnostic procedures.(1997 SU)

MLT-127 Transfusion Medicine**3 (2-3) Summer****Prerequisites:** None**Corequisites:** None

This course introduces the blood group systems and their applications in transfusion medicine. Emphasis is placed on blood bank techniques including blood grouping and typing, pretransfusion testing, donor selection and processing, and blood component preparation and therapy. Upon completion, students should be able to demonstrate theoretical comprehension and application in performing/interpreting routine blood bank procedures and recognizing/resolving common problems.(1997 SU)

MLT-130 Clinical Chemistry I 4 (3-3) Spring**Prerequisites:** None**Corequisites:** None

This course introduces the quantitative analysis of blood and body fluids and their variations in health and disease. Topics include clinical biochemistry, methodologies, instrumentation, and quality control. Upon completion, students should be able to demonstrate theoretical comprehension of clinical chemistry, perform diagnostic techniques, and correlate laboratory findings with disorders. (1997 SU)

MLT-140 Intro to Microbiology 3 (2-3) Fall**Prerequisites:** None**Corequisites:** None

This course introduces basic techniques and safety procedures in clinical microbiology. Emphasis is placed on the morphology and identification of common pathogenic organisms, aseptic technique, staining techniques, and usage of common media. Upon completion, students should be able to demonstrate theoretical comprehension in performing and interpreting basic clinical microbiology procedures. (1997 SU)

MLT-215 Professional Issues 1 (1-0) Spring**Prerequisites:** None**Corequisites:** None

This course surveys professional issues in preparation for career entry. Emphasis is placed on work readiness and theoretical concepts in microbiology, immunohematology, hematology, and clinical chemistry. Upon completion, students should be able to demonstrate competence in career entry-level areas and be prepared for the national certification examination. (1997 SU)

MLT-220 Hematology/Hemostasis II 3 (2-3) Spring**Prerequisites:** None**Corequisites:** None

This course covers the theories and techniques used in the advanced analysis of human blood cells and hemostasis. Emphasis is placed on the study of hematologic disorders, abnormal cell development and morphology, and related testing. Upon completion, students should be able to demonstrate a theoretical comprehension and application of abnormal hematology and normal and abnormal hemostasis. (1997 SU)

MLT-240 Special Clin Microbiology 3 (2-3) Spring**Prerequisites:** MLT-140^S**Corequisites:** None

This course is designed to introduce special techniques in clinical microbiology. Emphasis is placed on advanced areas in microbiology. Upon completion, students should be able to demonstrate theoretical comprehension in performing and interpreting specialized clinical microbiology procedures. (1997 SU)

**MLT-251 MLT Practicum I 1 (0-0-3) Fall
Spring****Prerequisites:** None**Corequisites:** None

This course provides entry-level clinical laboratory experience. Emphasis is placed on technique, accuracy, and precision. Upon completion, students should be able to demonstrate entry-level competence on final clinical evaluations.(1997 SU)

**MLT-253 MLT Practicum I 3 (0-0-9) Fall
Spring****Prerequisites:** None**Corequisites:** None

This course provides entry-level clinical laboratory experience. Emphasis is placed on technique, accuracy, and precision. Upon completion, students should be able to demonstrate entry-level competence on final clinical evaluations.(1997 SU)

**MLT-261 MLT Practicum II 1 (0-0-3) Fall
Spring****Prerequisites:** None**Corequisites:** None

This course provides entry-level clinical laboratory experience. Emphasis is placed on technique, accuracy, and precision. Upon completion, students should be able to demonstrate entry-level competence on final clinical evaluations.(1997 SU)

**MLT-262 MLT Practicum II 2 (0-0-6) Fall
Spring****Prerequisites:** None**Corequisites:** None

This course provides entry-level clinical laboratory experience. Emphasis is placed on technique, accuracy, and precision. Upon completion, students should be able to demonstrate entry-level competence on final clinical evaluations.(1997 SU)

**MLT-263 MLT Practicum II 3 (0-0-9) Fall
Spring****Prerequisites:** None**Corequisites:** None

This course provides entry-level clinical laboratory experience. Emphasis is placed on technique, accuracy, and precision. Upon completion, students should be able to demonstrate entry-level competence on final clinical evaluations.(1997 SU)

**MLT-273 MLT Practicum III 3 (0-0-9) Fall
Spring****Prerequisites:** None**Corequisites:** None

This course provides entry-level clinical laboratory experience. Emphasis is placed on technique, accuracy, and precision. Upon completion, students should be able to demonstrate entry-level competence on final clinical evaluations.(1997 SU)

MTH-220 Outcome-Based Massage 7 (4-6-3) Spring
Prerequisites: MTH-120^S**Corequisites:** WBL-111^L

This course provides knowledge and skills in more complex body works modalities in a variety of clinical settings. Emphasis is placed on developing advanced skills in outcome-based Massage. Upon completion, students should be able to perform basic skills in techniques covered.(2008 SP)

MUS MUSIC

**MUS-110 Music Appreciation 3 (3-0) Fall
Spring
Summer**
Prerequisites: None**Corequisites:** None

This course is a basic survey of the music of the Western world. Emphasis is placed on the elements of music, terminology, composers, form, and style within a historical perspective. Upon completion, students should be able to demonstrate skills in basic listening and understanding of the art of music.(1997 SU) This course has been approved to satisfy the following requirement(s):

- UGETC course for A.A., A.A. Teacher Preparation, A.E., A.F.A., A.S. and A.S. Teacher Preparation
- Humanities/Fine Arts Gen. Ed. course for A.A.S. and A.G.E.

MUS-111 Fundamentals of Music 3 (3-0) AND
Prerequisites: None**Corequisites:** None

This course is an introductory course for students with little or no music background. Emphasis is placed on music notation, rhythmic patterns, scales, key signatures, intervals, and chords. Upon completion, students should be able to demonstrate an understanding of the rudiments of music.(1999 FA) This course has been approved to satisfy the following requirement(s):

- Premajor and/or Elective Course for A.A. and A.S.
- Humanities/Fine Arts Gen. Ed. course for A.A.S. and A.G.E.

**MUS-112 Introduction to Jazz 3 (3-0) Fall
Spring**
Prerequisites: None**Corequisites:** None

This course introduces the origins and musical components of jazz and the contributions of its major artists. Emphasis is placed on the development of discriminating listening habits, as well as the investigation of the styles and structural forms of the jazz idiom. Upon completion, students should be able to demonstrate skills in listening and understanding this form of American music. (1997 SU) This course has been approved to satisfy the following requirement(s):

- UGETC course for A.A., A.A. Teacher Preparation, A.E., A.F.A., A.S. and A.S. Teacher Preparation
- Humanities/Fine Arts Gen. Ed. course for A.A.S. and A.G.E.

MUS-121 Music Theory I 3 (3-0) Fall**Prerequisites:** None**Corequisites:** MUS-125^L

This course provides an introduction to the musical elements of melody, rhythm, and harmony. Emphasis is placed upon the interaction of these elements through fundamental analysis and an introduction to part writing. Upon completion, students should be able to demonstrate understanding of melodic voice leading, rhythmic functions within simple and compound meters, and simple harmonic progressions.(2018 FA) This course has been approved to satisfy the following requirement(s):

- Premajor and/or Elective course for A.A. and A.S.
- Humanities/Fine Arts Gen. Ed. course for A.G.E.

MUS-122 Music Theory II 3 (3-0) Spring**Prerequisites:** MUS-121^S**Corequisites:** MUS-126^L

This course provides a comprehensive study of diatonic harmony. Emphasis is placed on voice leading tasks, part writing, and analysis using various labeling systems. Upon completion, students should be able to demonstrate harmonic principles through four-voice part writing, recognize and label non-harmonic tones, analyze chords using Roman numerals, figured bass, and lead sheet symbols, and classify small-scale phrase structure and cadence types.(2018 FA) This course has been approved to satisfy the following requirement(s):

- Premajor and/or Elective course for A.A. and A.S.
- Humanities/Fine Arts Gen. Ed. course for A.G.E.

MUS-125 Aural Skills I 1 (0-2) Fall**Prerequisites:** None**Corequisites:** MUS-121^L

This course provides an introduction to the fundamentals in aural skills. Emphasis is placed on the study of basic melodies, harmonies, and rhythms through sight singing and ear training. Upon completion, students should be able to identify diatonic intervals, scales, and chords and perform and dictate simple melodies and rhythmic patterns.(2018 FA) This course has been approved to satisfy the following requirement(s):

- Premajor and/or Elective course for A.A. and A.S.
- Humanities/Fine Arts Gen. Ed. course for A.G.E.

MUS-126 Aural Skills II 1 (0-2) Spring**Prerequisites:** MUS-125^S**Corequisites:** MUS-122^L

This course provides a foundation in aural skills. Emphasis is placed on the development of sight singing and ear training skills in diatonic melody, diatonic harmonic progression, and rhythmic patterns. Upon completion, students should be able to fluently read music in treble and bass clefs utilize any solmization system while sight singing simple diatonic melodies identify elementary diatonic chord progressions perform rhythms in simple and compound meters and dictate diatonic melodic, diatonic harmonic, and advanced rhythmic patterns.(2018 FA) This course has been approved to satisfy the following requirement(s):

- Premajor and/or Elective course for A.A. and A.S.
- Humanities/Fine Arts Gen. Ed. course for A.G.E.

MUS-131	Chorus I	1 (0-2)	Fall Spring
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Prerequisites: None

Corequisites: None

This course provides an opportunity to gain experience singing in a chorus. Emphasis is placed on vocal techniques and the study and performance of a variety of styles and periods of choral literature. Upon completion, students should be able to demonstrate skills needed to participate in choral singing leading to performance.(1997 SU) This course has been approved to satisfy the following requirement(s):

- Premajor and/or Elective course for A.A. and A.S.

MUS-132	Chorus II	1 (0-2)	Fall Spring
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Prerequisites: MUS-131^S

Corequisites: None

This course provides a continuation of studies begun in MUS 131. Emphasis is placed on vocal techniques and the study and performance of a variety of styles and periods of choral literature. Upon completion, students should be able to demonstrate skills needed to participate in choral singing leading to performance.(1997 SU) This course has been approved to satisfy the following requirement(s):

- Premajor and/or Elective course for A.A. and A.S.

MUS-133	Band I	1 (0-2)	Fall Spring
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Prerequisites: None

Corequisites: None

This course provides an opportunity for those who play a band instrument to gain experience playing in an ensemble. Emphasis is placed on band techniques and the study and performance of a variety of styles and periods of band literature. Upon completion, students should be able to demonstrate skills needed to participate in ensemble playing leading to performance.(1997 SU) This course has been approved to satisfy the following requirement(s):

- Premajor and/or Elective course for A.A. and A.S.

MUS-134	Band II	1 (0-2)	Fall Spring
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Prerequisites: MUS-133^S

Corequisites: None

This course is a continuation of MUS 133. Emphasis is placed on band techniques and the study and performance of a variety of styles and periods of band literature. Upon completion, students should be able to demonstrate skills needed to participate in ensemble playing leading to performance.(1997 SU) This course has been approved to satisfy the following requirement(s):

- Premajor and/or Elective course for A.A. and A.S.

MUS-135	Jazz Ensemble I	1 (0-2)	Fall Spring
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Prerequisites: None

Corequisites: None

This course provides an opportunity for those who play an appropriate instrument to gain experience playing in a jazz ensemble. Emphasis is placed on jazz ensemble techniques and the study and performance of a variety of styles of jazz literature. Upon completion, students should be able to demonstrate skills needed to participate in ensemble playing leading to performance.(1997 SU) This course has been approved to satisfy the following requirement(s):

- Premajor and/or Elective course for A.A. and A.S.

MUS-136	Jazz Ensemble II	1 (0-2)	Fall Spring
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Prerequisites: MUS-135^S

Corequisites: None

This course is a continuation of MUS 135. Emphasis is placed on jazz ensemble techniques and the study and performance of a variety of styles and periods of jazz literature. Upon completion, students should be able to demonstrate skills needed to participate in ensemble playing leading to performance.(1997 SU) This course has been approved to satisfy the following requirement(s):

- Premajor and/or Elective course for A.A. and A.S.

MUS-137	Orchestra I	1 (0-2)	Fall Spring
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Prerequisites: None

Corequisites: None

This course provides an opportunity for those who play an orchestral instrument to gain experience playing in an ensemble. Emphasis is placed on orchestral techniques and the study and performance of a variety of styles and periods of orchestral and string ensemble literature. Upon completion, students should be able to demonstrate skills needed to participate in ensemble playing leading to performance.(1997 SU) This course has been approved to satisfy the following requirement(s):

- Premajor and/or Elective course for A.A. and A.S.

MUS-138	Orchestra II	1 (0-2)	Fall Spring
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Prerequisites: MUS-137^S

Corequisites: None

This course is a continuation of MUS 137. Emphasis is placed on orchestral techniques and the study and performance of a variety of styles and periods of orchestral and string ensemble literature. Upon completion, students should be able to demonstrate skills needed to participate in ensemble playing leading to performance.(1997 SU) This course has been approved to satisfy the following requirement(s):

- Premajor and/or Elective course for A.A. and A.S.

MUS-141	Ensemble I	1 (0-2)	Fall Spring
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Prerequisites: None

Corequisites: None

This course provides an opportunity to perform in any combination of instrumental, vocal, or keyboard groups of two or more. Emphasis is placed on the development of performance skills and the study of a variety of styles and periods of ensemble literature. Upon completion, students should be able to demonstrate skills needed to participate in ensemble playing leading to performance.(1997 SU)

This course has been approved to satisfy the following requirement(s):

- Premajor and/or Elective course for A.A. and A.S.

MUS-142	Ensemble II	1 (0-2)	Fall Spring
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Prerequisites: MUS-141^S

Corequisites: None

This course is a continuation of MUS 141. Emphasis is placed on the development of performance skills and the study of a variety of styles and periods of ensemble literature. Upon completion, students should be able to demonstrate skills needed to participate in ensemble playing leading to performance.(1997 SU) This course has been approved to satisfy the following requirement(s):

- Premajor and/or Elective course for A.A. and A.S.

MUS-151	Class Music I	1 (0-2)	Fall Spring
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Prerequisites: None

Corequisites: None

This course provides group instruction in skills and techniques of the particular instrument or voice for those with little or no previous experience. Emphasis is placed on techniques and styles and the exploration and study of appropriate literature. Upon completion, students should be able to demonstrate proficiency in the studied skills and repertoire through performance.(1997 SU) This course has been approved to satisfy the following requirement(s):

- Premajor and/or Elective course for A.A. and A.S.

MUS-152	Class Music II	1 (0-2)	Fall Spring
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Prerequisites: MUS-151^S

Corequisites: None

This course is a continuation of MUS 151. Emphasis is placed on techniques and styles and the exploration and study of appropriate literature. Upon completion, students should be able to demonstrate proficiency in the studied skills and repertoire through performance.(1997 SU) This course has been approved to satisfy the following requirement(s):

- Premajor and/or Elective course for A.A. and A.S.

MUS-161	Applied Music I	2 (1-2)	Fall Spring
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Prerequisites: None

Corequisites: MUS-121^L

This course provides individual instruction in the skills and techniques of the particular instrument or voice. Emphasis is placed on techniques and styles and the exploration and study of appropriate literature. Upon completion, students should be able to demonstrate proficiency in the studied skills and repertoire through performance.(1999 FA) This course has been approved to satisfy the following requirement(s):

- Premajor and/or Elective Course for A.A. and A.S.

MUS-162	Applied Music II	2 (1-2)	Fall Spring
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Prerequisites: MUS-161^S

Corequisites: None

This course is a continuation of MUS 161. Emphasis is placed on techniques and styles and the exploration and study of appropriate literature. Upon completion, students should be able to demonstrate proficiency in the studied skills and repertoire through performance.(1999 FA) This course has been approved to satisfy the following requirement(s):

- Premajor and/or Elective Course for A.A. and A.S.

MUS-210	History of Rock Music	3 (3-0)	AND
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Prerequisites: None

Corequisites: None

This course is a survey of Rock music from the early 1950's to the present. Emphasis is placed on musical groups, soloists, and styles related to the evolution of this idiom and on related historical and social events. Upon completion, students should be able to identify specific styles and to explain the influence of selected performers within their respective eras.(2003 FA) This course has been approved to satisfy the following requirement(s):

- Humanities/Fine Arts Gen. Ed. course for A.A., A.A. Teacher Preparation and A.S.
- Humanities/Fine Arts Gen. Ed. course for A.A.S. and A.G.E.

MUS-221	Music Theory III	3 (3-0)	Fall
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Prerequisites: MUS-122^S

Corequisites: MUS-225^L

This course provides a comprehensive study of chromatic harmony. Emphasis is placed on advanced voice leading tasks, part writing, and analysis of chord progressions, modulations, and large-scale forms. Upon completion, students should be able to identify, notate, and analyze an array of chromatic chords, recognize the function and movement of chromatic harmonies, identify modulatory procedures, analyze formal structures including, but not limited to, binary, ternary, sonata, and rondo.(2018 FA) This course has been approved to satisfy the following requirement(s):

- Premajor and/or Elective course for A.A. and A.S.

MUS-222 Music Theory IV 3 (3-0) Spring**Prerequisites:** MUS-221^S**Corequisites:** MUS-226^L

This course provides an advanced study of chromatic harmony, scale systems, and an introduction to twentieth-century music. Emphasis is placed on advanced part writing and analysis of chromatic harmony and basic twentieth-century compositional and analytical techniques. Upon completion, students should be able to analyze complex chord progressions, advanced modulations, and elemental serial procedures build an array of synthetic scales and identify characteristics of twentieth-century topics including, but not limited to, atonality, serialism, minimalism, indeterminacy, and electronic music.(2018 FA) This course has been approved to satisfy the following requirement(s):

- Premajor and/or Elective course for A.A. and A.S.

MUS-225 Aural Skills III 1 (0-2) Fall**Prerequisites:** MUS-126^S**Corequisites:** MUS-221^L

This course provides advanced aural skills training in diatonicism and basic aural skills training in chromaticism. Emphasis is placed on the development of sight singing and ear training skills in complex rhythmic patterns, diatonic melodies and harmonies, and basic chromaticism. Upon completion, students should be able to utilize any solmization system while sight singing diatonic melodies with functional and non-functional chromaticism, fluently read music in multiple clefs in addition to treble and bass, identify modulations, perform complex rhythmic patterns in various meters, and dictate tonal melodies and harmonies including chromaticism. (2018 FA) This course has been approved to satisfy the following requirement(s):

- Premajor and/or Elective course for A.A. and A.S.

MUS-226 Aural Skills IV 1 (0-2) Spring**Prerequisites:** MUS-225^S**Corequisites:** MUS-222^L

This course provides advanced aural skills training in diatonicism and chromaticism. Emphasis is placed on the development of sight singing and ear training skills in chromatic melodies, chromatic harmonies, and complex rhythmic patterns. Upon completion, students should be able to utilize any solmization system while sight singing melodies containing significant chromaticism fluently read music in multiple clefs, including treble, bass, alto, and tenor perform and dictate rhythmic patterns in irregular and changing meters and dictate diatonic and chromatic melodies and harmonic progressions.(2018 FA) This course has been approved to satisfy the following requirement(s):

- Premajor and/or Elective course for A.A. and A.S.

MUS-231 Chorus III 1 (0-2) Fall Spring**Prerequisites:** MUS-132^S**Corequisites:** None

This course is a continuation of MUS 132. Emphasis is placed on vocal techniques and the study and performance of a variety of styles and periods of choral literature. Upon completion, students should be able to demonstrate skills needed to participate in choral singing leading to performance.(1997 SU) This course has been approved to satisfy the following requirement(s):

- Premajor and/or Elective course for A.A. and A.S.

COURSE DESCRIPTIONS

MUS-232	Chorus IV	1 (0-2)	Fall Spring
Prerequisites: MUS-231 ^S Corequisites: None This course is a continuation of MUS 231. Emphasis is placed on vocal techniques and the study of styles and periods of choral literature. Upon completion, students should be able to demonstrate skills needed to participate in choral singing leading to performance.(1997 SU) This course has been approved to satisfy the following requirement(s): <ul style="list-style-type: none"> • Premajor and/or Elective course for A.A. and A.S. 			
MUS-233	Band III	1 (0-2)	Fall Spring
Prerequisites: MUS-134 ^S Corequisites: None This course is a continuation of MUS 134. Emphasis is placed on band techniques and the study and performance of a variety of styles and periods of band literature. Upon completion, students should be able to demonstrate skills needed to participate in ensemble playing leading to performance.(1997 SU) This course has been approved to satisfy the following requirement(s): <ul style="list-style-type: none"> • Premajor and/or Elective course for A.A. and A.S. 			
MUS-234	Band IV	1 (0-2)	Fall Spring
Prerequisites: MUS-233 ^S Corequisites: None This course is a continuation of MUS 233. Emphasis is placed on band techniques and the study and performance of a variety of styles and periods of band literature. Upon completion, students should be able to demonstrate skills needed to participate in ensemble playing leading to performance.(1997 SU) This course has been approved to satisfy the following requirement(s): <ul style="list-style-type: none"> • Premajor and/or Elective course for A.A. and A.S. 			
MUS-235	Jazz Ensemble III	1 (0-2)	Fall Spring
Prerequisites: MUS-136 ^S Corequisites: None This course is a continuation of MUS 136. Emphasis is placed on jazz ensemble techniques and the study and performance of a variety of styles and periods of jazz literature. Upon completion, students should be able to demonstrate skills needed to participate in ensemble playing leading to performance.(1997 SU) This course has been approved to satisfy the following requirement(s): <ul style="list-style-type: none"> • Premajor and/or Elective course for A.A. and A.S. 			

MUS-236	Jazz Ensemble IV	1 (0-2)	Fall Spring
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Prerequisites: MUS-235^S

Corequisites: None

This course is a continuation of MUS 235. Emphasis is placed on jazz ensemble techniques and the study and performance of a variety of styles and periods of jazz literature. Upon completion, students should be able to demonstrate skills needed to participate in ensemble playing leading to performance.(1997 SU) This course has been approved to satisfy the following requirement(s):

- Premajor and/or Elective course for A.A. and A.S.

MUS-237	Orchestra III	1 (0-2)	Fall Spring
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Prerequisites: MUS-138^S

Corequisites: None

This course is a continuation of MUS 138. Emphasis is placed on orchestral techniques and the study and performance of a variety of styles and periods of orchestral and string ensemble literature. Upon completion, students should be able to demonstrate skills needed to participate in ensemble playing leading to performance.(1997 SU) This course has been approved to satisfy the following requirement(s):

- Premajor and/or Elective course for A.A. and A.S.

MUS-238	Orchestra IV	1 (0-2)	Fall Spring
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Prerequisites: MUS-237^S

Corequisites: None

This course is a continuation of MUS 237. Emphasis is placed on orchestral techniques and the study and performance of a variety of styles and periods of orchestral and string ensemble literature. Upon completion, students should be able to demonstrate skills needed to participate in ensemble playing leading to performance.(1997 SU) This course has been approved to satisfy the following requirement(s):

- Premajor and/or Elective course for A.A. and A.S.

MUS-241	Ensemble III	1 (0-2)	Fall Spring
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Prerequisites: MUS-142^S

Corequisites: None

This course is a continuation of MUS 142. Emphasis is placed on the development of performance skills and the study of a variety of styles and periods of ensemble literature. Upon completion, students should be able to demonstrate skills needed to participate in ensemble playing leading to performance.(1997 SU) This course has been approved to satisfy the following requirement(s):

- Premajor and/or Elective course for A.A. and A.S.

COURSE DESCRIPTIONS

MUS-242	Ensemble IV	1 (0-2)	Fall Spring
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Prerequisites: MUS-241^S

Corequisites: None

This course is a continuation of MUS 241. Emphasis is placed on the development of performance skills and the study of styles of ensemble literature. Upon completion, students should be able to demonstrate skills needed to participate in ensemble playing leading to performance.(1997 SU) This course has been approved to satisfy the following requirement(s):

- Premajor and/or Elective course for A.A. and A.S.

MUS-251	Class Music III	1 (0-2)	Fall Spring
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Prerequisites: MUS-152^S

Corequisites: None

This course is a continuation of MUS 152. Emphasis is placed on techniques and styles and the exploration and study of appropriate literature. Upon completion, students should be able to demonstrate proficiency in the studied skills and repertoire through performance.(1997 SU) This course has been approved to satisfy the following requirement(s):

- Premajor and/or Elective course for A.A. and A.S.

MUS-252	Class Music IV	1 (0-2)	Fall Spring
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Prerequisites: MUS-251^S

Corequisites: None

This course is a continuation of MUS 251. Emphasis is placed on techniques and styles and the exploration and study of appropriate literature. Upon completion, students should be able to demonstrate proficiency in the studied skills and repertoire through performance.(1997 SU) This course has been approved to satisfy the following requirement(s):

- Premajor and/or Elective course for A.A. and A.S.

MUS-261	Applied Music III	2 (1-2)	Fall Spring
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Prerequisites: MUS-162^S

Corequisites: None

This course is a continuation of MUS 162. Emphasis is placed on techniques and styles and the exploration and study of appropriate literature. Upon completion, students should be able to demonstrate proficiency in the studied skills and repertoire through performance.(1999 FA) This course has been approved to satisfy the following requirement(s):

- Premajor and/or Elective Course for A.A. and A.S.

MUS-262	Applied Music IV	2 (1-2)	Fall Spring
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Prerequisites: MUS-261^S

Corequisites: None

This course is a continuation of MUS 261. Emphasis is placed on techniques and styles and the exploration and study of appropriate literature. Upon completion, students should be able to demonstrate proficiency in the studied skills and repertoire through performance.(1999 FA) This course has been approved to satisfy the following requirement(s):

- Premajor and/or Elective Course for A.A. and A.S.

MUS-271	Music History I	3 (3-0)	Fall
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Prerequisites: MUS-122^S

Corequisites: None

This course is the first of a two-semester, in-depth study of music history. Emphasis is placed on the history and literature of music from Antiquity through the Baroque Period. Upon completion, students should be able to trace important musical developments and demonstrate an understanding of the composers' styles.(1997 SU) This course has been approved to satisfy the following requirement(s):

- Premajor and/or Elective course for A.A. and A.S.

MUS-272	Music History II	3 (3-0)	Spring
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Prerequisites: MUS-271^S

Corequisites: None

This course is the second of a two-semester, in-depth study of music history. Emphasis is placed on the history and literature of music from the Classical Period to the present. Upon completion, students should be able to trace important musical developments and demonstrate an understanding of the composers' styles.(1997 SU) This course has been approved to satisfy the following requirement(s):

- Premajor and/or Elective course for A.A. and A.S.

NAS NURSING ASSISTANT

NAS-101	Nurse Aide I	6 (3-4-3)	Fall Spring
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Prerequisites: ENG-002^L or BSP-4002^L

Corequisites: None

This course includes basic nursing skills required to provide safe, competent personal care for individuals. Emphasis is placed on person-centered care, the aging process, communication, safety/emergencies, infection prevention, legal and ethical issues, vital signs, height and weight measurements, elimination, nutrition, basic restorative care/rehabilitation, dementia, mental health and end-of-life care. Upon completion, students should be able to demonstrate knowledge and skills and be eligible to test for listing on the North Carolina Nurse Aide I Registry.(2015 SP) This is a certificate-level course.

NAS-102	Nurse Aide II	6 (3-2-6)	Fall Spring
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Prerequisites: NAS-101^S; ENG-002^L or BSP-4002^L

Corequisites: None

This course provides training in Nurse Aide II tasks. Emphasis is placed on the role of the Nurse Aide II, sterile technique and specific tasks such as urinary catheterization, wound care, respiratory procedures, ostomy care, peripheral IV assistive activities, and alternative feeding methods. Upon completion, students should be able to demonstrate knowledge and skills and safe performance of skills necessary to be eligible for listing on the North Carolina Nurse Aide II Registry. (2015 SP) This is a certificate-level course.

NET NETWORKING TECHNOLOGY

NET-125	Introduction to Networks	3 (1-4)	Fall Spring
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Prerequisites: None

Corequisites: None

This course introduces the architecture, structure, functions, components, and models of the Internet and computer networks. Topics include introduction to the principles of IP addressing and fundamentals of Ethernet concepts, media, and operations. Upon completion, students should be able to build simple LANs, perform basic configurations for routers and switches, and implement IP addressing schemes.(2016 FA)

NET-126	Switching and Routing	3 (1-4)	Fall Spring Summer
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Prerequisites: None

Corequisites: None

This course covers the architecture, components, and operations of routers and switches in small networks and introduces wireless local area networks (WLAN) and security concepts. Emphasis is placed on configuring and troubleshooting routers and switches for advanced functionality using security best practices and resolving common network issues utilizing both IPv4 and IPv6 protocols. Upon completion, students should be able to configure VLANs and Inter-VLAN routing applying security best practices, troubleshoot inter-VLAN routing on Layer 3 devices, configure redundancy on a switched network using STP and EtherChannel, configure WLANs using a WLC and L2 security best practices and configure IPv4 and IPv6 static routing on routers.(2021 FA)

NET-225	Enterprise Networking	3 (1-4)	Fall Spring
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Prerequisites: None**Corequisites:** None

This course is designed to cover the architecture, components, operations, and security to scale for large, complex networks, including wide area network (WAN) technologies. Emphasis is placed on configuring, troubleshooting, and securing enterprise network devices and understanding how application programming interfaces (API) and configuration management tools enable network automation. Upon completion, students should be able to configure link state routing protocols, implement ACLs to filter traffic and secure administrative access, configure NAT services on the router to provide address scalability, explain techniques to provide address scalability and secure remote access for WAN, and explain how automation affects evolving networks.(2021 FA)

NOS NETWORK OPERATING SYSTEMS

NOS-120	Linux/UNIX Single User	3 (2-2)	Spring Summer
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Prerequisites: None**Corequisites:** None

This course develops the necessary skills for students to develop both GUI and command line skills for using and customizing a Linux workstation. Topics include Linux file system and access permissions, GNOME Interface, VI editor, X Window System expression pattern matching, I/O redirection, network and printing utilities. Upon completion, students should be able to customize and use Linux systems for command line requirements and desktop productivity roles.(2016 FA)

NOS-130	Windows Single User	3 (2-2)	Fall Spring Summer
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Prerequisites: None**Corequisites:** None

This course introduces operating system concepts for single-user systems. Topics include hardware management, file and memory management, system configuration/optimization, and utilities. Upon completion, students should be able to perform operating systems functions at the support level in a single-user environment.(2016 FA)

NOS-230	Windows Administration I	3 (2-2)	Spring
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Prerequisites: None**Corequisites:** None

This course covers the installation and configuration of a Windows Server operating system. Emphasis is placed on the basic configuration of core network services, Active Directory and group policies. Upon completion, students should be able to install and configure a Windows Server operating system.(2014 FA)

NUR NURSING

NUR-111 Intro to Health Concepts 8 (4-6-6) Fall

Prerequisites: ENG-002 w/P2L, BSP-4002 w/P2L or ENG-011^L; MAT-003 w/P2L, BSP-4003 w/P2L, MAT-021^L, MAT-043^L, MAT-052^L or MAT-071^L;

Corequisites: BIO-165^L, PSY-150^L, ENG-111^L

This course introduces the concepts within the three domains of the individual, healthcare, and nursing. Emphasis is placed on the concepts within each domain including medication administration, assessment, nutrition, ethics, interdisciplinary teams, informatics, evidence-based practice, individual-centered care, and quality improvement. Upon completion, students should be able to provide safe nursing care incorporating the concepts identified in this course.(2009 FA)

NUR-112 Health-Illness Concepts 5 (3-0-6) Spring

Prerequisites: NUR-111^S; BIO-165^L, PSY-150^L, ENG-111^L; all minimum grade C

Corequisites: BIO-166^L, ENG-112^L or ENG-114^L

This course is designed to further develop the concepts within the three domains of the individual, healthcare, and nursing. Emphasis is placed on the concepts of acid-base, metabolism, cellular regulation, oxygenation, infection, stress/coping, health-wellness-illness, communication, caring interventions, managing care, safety, quality improvement, and informatics. Upon completion, students should be able to provide safe nursing care incorporating the concepts identified in this course.(2009 FA)

NUR-113 Family Health Concepts 5 (3-0-6) Fall

Prerequisites: NUR-111^S, NUR-112^L, NUR-114^L, NUR-211^L, BIO-165^L, BIO-166^L, PSY-150^L, PSY-241^L, ENG-111^L, ENG-112^L or ENG-114^L; all minimum grade C

Corequisites: BIO-275^L, SOC-210^L

This course is designed to further develop the concepts within the three domains of the individual, healthcare, and nursing. Emphasis is placed on the concepts of oxygenation, sexuality, reproduction, grief/loss, mood/affect, behaviors, development, family, health-wellness-illness, communication, caring interventions, managing care, safety, and advocacy. Upon completion, students should be able to provide safe nursing care incorporating the concepts identified in this course. (2009 FA)

NUR-114 Holistic Health Concepts 5 (3-0-6) Summer

Prerequisites: NUR-111^S, NUR-112^L, NUR-211^L, BIO-165^L, BIO-166^L, PSY-150^L, ENG-111^L, ENG-112^L or ENG-114^L; all minimum grade C

Corequisites: PSY-241^L

This course is designed to further develop the concepts within the three domains of the individual, healthcare, and nursing. Emphasis is placed on the concepts of cellular regulation, perfusion, inflammation, sensory perception, stress/coping, mood/affect, cognition, self, violence, health-wellness-illness, professional behaviors, caring interventions, and safety. Upon completion, students should be able to provide safe nursing care incorporating the concepts identified in this course.(2009 FA)

NUR-211 Health Care Concepts 5 (3-0-6) Spring

Prerequisites: NUR-111^S, NUR-112^L, BIO-165^L, PSY-150^L, ENG-111^L; all minimum grade C

Corequisites: BIO-166^L, ENG-112^L or ENG-114^L

This course is designed to further develop the concepts within the three domains of the individual, healthcare, and nursing. Emphasis is placed on the concepts of cellular regulation, perfusion, infection, immunity, mobility, comfort, behaviors, health-wellness-illness, clinical decision-making, caring interventions, managing care, and safety. Upon completion, students should be able to provide safe nursing care incorporating the concepts identified in this course.(2009 FA)

NUR-212 Health System Concepts 5 (3-0-6) Fall

Prerequisites: NUR-111^S, NUR-112^L, NUR-114^L, NUR-211^L, BIO-165^L, BIO-166^L, PSY-150^L, PSY-241^L, ENG-111^L, ENG-112^L or ENG-114^L; all minimum grade C

Corequisites: BIO-275^L, SOC-210^L

This course is designed to further develop the concepts within the three domains of the individual, healthcare, and nursing. Emphasis is placed on the concepts of grief/loss, violence, health-wellness-illness, collaboration, managing care, safety, advocacy, legal issues, policy, healthcare systems, ethics, accountability, and evidence-based practice. Upon completion, students should be able to provide safe nursing care incorporating the concepts identified in this course(2009 FA)

NUR-213 Complex Health Concepts 10 Spring (4-3-15)

Prerequisites: NUR-111^S, NUR-112^{SC-LP}, NUR-113^{SC-LP}, NUR-114^{SC-LP}, NUR-211^{SC-LP}, NUR-212^{SC-LP}, BIO-165^L, BIO-166^L, PSY-150^L, PSY-241^L, ENG-111^L, ENG-112^L or ENG-114^L, BIO-275^L, SOC-210^L; all minimum grade C

Corequisites: ART-111^L, ART-114^L, ART-115^L, MUS-110^L, MUS-112^L, HUM-115^L, PHI-215^L or PHI-240^L

This course is designed to assimilate the concepts within the three domains of the individual, healthcare, and nursing. Emphasis is placed on the concepts of fluid/electrolytes, metabolism, perfusion, mobility, stress/coping, violence, health-wellness-illness, professional behaviors, caring interventions, managing care, healthcare systems, and quality improvement. Upon completion, students should be able to demonstrate the knowledge, skills, and attitudes necessary to provide quality, individualized, entry level nursing care.(2011 FA)

NUR-214 Nsg Transition Concepts 4 (3-0-3) Spring

Prerequisites: ENG-111^L, BIO-165^L, PSY-150^L

Corequisites: BIO-166^L, ENG-112^L or ENG-114^L

This course is designed to introduce concepts within the three domains of the individual, healthcare, and nursing as the LPN transitions to the ADN role. Emphasis is placed on the concepts within each domain including evidenced-based practice, quality improvement, communication, safety, interdisciplinary team, clinical decision-making, informatics, assessment, caring, and health-wellness-illness. Upon completion, students should be able to provide safe nursing care incorporating the concepts identified in this course.(2009 SU)

OPH OPTICIANRY

OPH-113 Intro to Diseases of Eye 2 (2-0) Fall

Prerequisites: OPH-150^S, OPH-151^S

Corequisites: None

This course introduces common external and internal diseases of the eye and orbital region. Topics include common patient complaints, ocular emergencies, triage procedures and common ocular conditions and disorders. Upon completion, the student should be able to identify most common ocular diseases and determine appropriate emergency management of acute ocular problems.(2018 SU)

OPH-114 Basic Ophthalmic Pharma. 2 (2-0) Spring

Prerequisites: OPH-150^S, OPH-151^S

Corequisites: None

This course introduces and compares drug delivery systems. Topics include the use of diagnostic agents and various classes of drugs commonly used in ophthalmic practices. Upon completion, the students should administer and record topical and oral medications at the physician's direction.(2018 FA)

OPH-115 Ophthalmic Clin Proc I 2 (1-2) Fall

Prerequisites: OPH-150^S, OPH-151^S

Corequisites: None

This course introduces basic clinical procedures for the ophthalmic practice. Topics include telephone triage and basic procedures commonly used in the preliminary examination of patients. Topics include basic procedures commonly used in the preliminary examination of patients. Upon completion, the student should be able to perform basic administrative tasks and perform basic procedures commonly used in patient examinations.(2018 FA)

**OPH-116 Ophtha Med Assist Pract I 6 Fall
(0-0-18)**

Prerequisites: OPH-150^S, OPH-151^S

Corequisites: None

This course introduces ophthalmic patient care procedures. Topics include interpersonal skills with patients, work and legal ethics, confidentiality, clinical appearance and performance. Upon completion, the student will be able to demonstrate competence and efficiency in basic clinical skills.(2018 FA)

OPH-117 Ophthalmic Clin Proc II 2 (1-2) Spring

Prerequisites: OPH-115^S

Corequisites: None

This course introduces more intermediate clinical procedures for the ophthalmic practice. Topics include coding and testing associated with the treatment of glaucoma, cataracts and refractive errors. Upon completion, the student should understand coding for ophthalmic procedures and perform more intermediate clinical procedures.(2018 FA)

OPH-118	Ophthalmic Patient Care	2 (2-0)	Spring
Prerequisites:	OPH-150 ^S , OPH-151 ^S		
Corequisites:	None		
This course is an overview of the care of the ophthalmic patient. Topics include systemic diseases in the eye, review of first aid, emergency equipment and supplies, infection control, identification and sterilization of minor surgical equipment, and aseptic technique. Upon completion, the students should be able to apply these principles in their interactions with patients.(2018 FA)			
OPH-119	Ophtha Optics & Basic Refract	2 (2-0)	Fall
Prerequisites:	OPH-150 ^S , OPH-151 ^S		
Corequisites:	None		
This course introduces basic theoretical and clinical optics. Topics include interaction of light and lenses, refractive states of the eye, and principles of retinoscopy and refractometry. Upon completion, the student will demonstrate physical and geometric optics, and basic refractometry techniques.(2018 FA)			
OPH-120	Ophtha Med Assist Pract II	6 (0-0-18)	Spring
Prerequisites:	OPH-116 ^S		
Corequisites:	None		
This course provides additional clinical experience in ophthalmic patient care procedures. Topics include interpersonal skills with patients, work and legal ethics, confidentiality, appearance and performance. Upon completion, the student will be able to perform basic and intermediate clinical skills, working towards competence and efficiency.(2018 FA)			
OPH-150	Intro to Ophth Med Assist	2 (2-0)	Summer
Prerequisites:	None		
Corequisites:	OPH-151 ^S		
This course introduces the role, scope, and duties of the ophthalmic assistant. Topics include medical ethics, duties of assistant, medical history, basic medical terminology, and an overview of human anatomy and physiology. Upon completion, students should be able to demonstrate knowledge of medical history taking and show an understanding of the role of ophthalmic medical personnel in patient care.(2018 FA)			
OPH-151	Ocular Anat. & Physiology	2 (2-0)	Summer
Prerequisites:	None		
Corequisites:	OPH-150 ^S		
This course studies the normal anatomy and physiology of eye and orbit. Topics include structures of the eye, functioning process of the eye and correct medical terminology of the structures and functions of the eye. Upon completion, the student should demonstrate a basic understanding and fundamental principles of anatomy and physiology of the eye.(1999 FA)			

OST OFFICE SYSTEMS TECHNOLOGY

OST-131	Keyboarding	2 (1-2)	Fall Spring Summer
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Prerequisites: None**Corequisites:** None

This course covers basic keyboarding skills. Emphasis is placed on the touch system, correct techniques, and development of speed and accuracy. Upon completion, students should be able to key at an acceptable speed and accuracy level using the touch system.(1997 SU)

OST-134	Text Entry & Formatting	3 (2-2)	Fall Spring Summer
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Prerequisites: OST-131, minimum grade BL**Corequisites:** None

This course is designed to provide skills needed to increase speed, improve accuracy, and format documents. Topics include letters, memos, tables, and business reports. Upon completion, students should be able to produce documents and key timed writings at speeds commensurate with employability.(2008 FA)

OST-136	Word Processing	3 (2-2)	Summer
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Prerequisites: None**Corequisites:** None

This course is designed to introduce word processing concepts and applications. Topics include preparation of a variety of documents and mastery of specialized software functions. Upon completion, students should be able to work effectively in a computerized word processing environment.(2008 FA)

OST-137	Office Applications I	3 (2-2)	Summer
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Prerequisites: None**Corequisites:** None

This course introduces the concepts and functions of software that meets the changing needs of the community. Emphasis is placed on the terminology and use of software through a hands-on approach. Upon completion, students should be able to use software in a business environment.(2017 FA)

OST-148	Med Ins & Billing	3 (3-0)	Spring Summer
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Prerequisites: None**Corequisites:** MED-121^L

This course introduces fundamentals of medical insurance and billing. Emphasis is placed on the medical billing cycle to include third party payers, coding concepts, and form preparation. Upon completion, students should be able to explain the life cycle of and accurately complete a medical insurance claim.(2017 FA)

OST-149	Medical Legal Issues	3 (3-0)	Fall
Prerequisites:	None		
Corequisites:	None		
This course introduces the complex legal, moral, and ethical issues involved in providing health-care services. Emphasis is placed on the legal requirements of medical practices the relationship of physician, patient, and office personnel professional liabilities and medical practice liability. Upon completion, students should be able to demonstrate a working knowledge of current medical law and accepted ethical behavior.(1999 FA)			
OST-164	Office Editing	3 (3-0)	Fall Spring
Prerequisites:	None		
Corequisites:	None		
This course provides a comprehensive study of editing skills needed in the workplace. Emphasis is placed on grammar, punctuation, sentence structure, proofreading, and editing. Upon completion, students should be able to use reference materials to compose and edit text.(2017 FA)			
OST-184	Records Management	3 (2-2)	Spring
Prerequisites:	None		
Corequisites:	None		
This course includes the creation, maintenance, protection, security, and disposition of records stored in a variety of media forms. Topics include alphabetic, geographic, subject, and numeric filing methods. Upon completion, students should be able to set up and maintain a records management system.(2008 FA)			
OST-236	Adv Word Processing	3 (2-2)	Fall
Prerequisites:	OST-136 ^S		
Corequisites:	None		
This course develops proficiency in the utilization of advanced word processing functions. Emphasis is placed on advanced word processing features. Upon completion, students should be able to produce a variety of complex business documents.(2017 FA)			
OST-243	Med Office Simulation	3 (2-2)	Fall
Prerequisites:	OST-148 ^S		
Corequisites:	None		
This course introduces medical systems used to process information in the automated office. Topics include traditional and electronic information resources, storing and retrieving information, and the billing cycle. Upon completion, students should be able to use the computer accurately to schedule, bill, update, and make corrections.(1998 FA)			
OST-247	Procedure Coding	3 (2-2)	Fall
Prerequisites:	MED-121 ^S or OST-141 ^S ; OST-148 ^L		
Corequisites:	None		
This course provides in-depth coverage of procedural coding. Emphasis is placed on CPT and HCPCS coding systems. Upon completion, students should be able to properly code procedures and services performed in a medical facility.(2017 FA)			

COURSE DESCRIPTIONS

OST-248	Diagnostic Coding	3 (2-2)	Fall
Prerequisites:	MED-121 ^S or OST-141 ^S ; OST-148 ^L		
Corequisites:	None		
This course provides an in-depth study of diagnostic coding. Emphasis is placed on ICD coding system. Upon completion, students should be able to properly code diagnoses in a medical facility.(2017 FA)			
OST-249	Med Coding Certification Prep	3 (2-3)	Spring
Prerequisites:	OST-247 ^S , OST-248 ^S		
Corequisites:	None		
This course provides instruction that will prepare students to sit for a national coding certification exam. Topics include diagnostic and procedural coding. Upon completion, students should be able to sit for various medical coding certification exams.(2017 FA)			
OST-250	Long-Term Care Coding	3 (2-2)	Spring
Prerequisites:	MED-121 ^S or OST-141 ^S		
Corequisites:	None		
This course covers diagnostic coding as it applies to long-term care facilities and home care. Topics include diagnostic coding and reimbursement in long-term care facilities and home care. Upon completion, students should be able to properly code conditions for long-term care and home care services.(2017 FA)			
OST-284	Emerging Technologies	2 (1-2)	Fall
Prerequisites:	None		
Corequisites:	None		
This course provides opportunities to explore emerging technologies. Emphasis is placed on identifying, researching, and presenting current technological topics for class consideration and discussion. Upon completion, students should be able to understand the importance of keeping abreast of technological changes that affect the office professional.(1999 FA)			
OST-286	Professional Development	3 (3-0)	Spring
Prerequisites:	None		
Corequisites:	None		
This course covers the personal competencies and qualities needed to project a professional image in the office. Topics include interpersonal skills, health lifestyles, appearance, attitude, personal and professional growth, multicultural awareness, and professional etiquette. Upon completion, students should be able to demonstrate these attributes in the classroom, office, and society.(1999 FA)			
OST-288	Medical Office Admin Capstone	3 (2-2)	Spring
Prerequisites:	OST-148 ^S		
Corequisites:	None		
This course is designed to be a capstone course for the medical office professional and provides a working knowledge of medical office procedures. Emphasis is placed on written and oral communication skills, practice management, electronic health records, medical office procedures, ethics, and professional development. Upon completion, students should be able to demonstrate the skills necessary to manage a medical office.(2017 FA)			

OST-289 Office Admin Capstone 3 (2-2) Spring
Prerequisites: OST-134^S or OST-136^S; OST-164^S
Corequisites: None

This course is designed to be a capstone course for the office professional and provides a working knowledge of administrative office procedures. Emphasis is placed on written and oral communication skills, office software applications, office procedures, ethics, and professional development. Upon completion, students should be able to adapt in an office environment.(2017 FA)

PED PHYSICAL EDUCATION

**PED-110 Fit and Well for Life 2 (1-2) Fall
Spring
Summer**
Prerequisites: None

Corequisites: None

This course is designed to investigate and apply the basic concepts and principles of lifetime physical fitness and other health-related factors. Emphasis is placed on wellness through the study of nutrition, weight control, stress management, and consumer facts on exercise and fitness. Upon completion, students should be able to plan a personal, lifelong fitness program based on individual needs, abilities, and interests.(1997 SU) This course has been approved to satisfy the following requirement(s):

- Premajor and/or Elective course for A.A. and A.S.
- Other Gen. Ed. and Premajor Elective course for A.E.

PED-111 Physical Fitness I 1 (0-3) AND
Prerequisites: None

Corequisites: None

This course provides an individualized approach to physical fitness utilizing the five major components. Emphasis is placed on the scientific basis for setting up and engaging in personalized physical fitness programs. Upon completion, students should be able to set up and implement an individualized physical fitness program.(1997 SU) This course has been approved to satisfy the following requirement(s):

- Premajor and/or Elective course for A.A. and A.S.

PED-112 Physical Fitness II 1 (0-3) AND
Prerequisites: PED-111^S
Corequisites: None

This course is an intermediate-level fitness class. Topics include specific exercises contributing to fitness and the role exercise plays in developing body systems. Upon completion, students should be able to implement and evaluate an individualized physical fitness program.(1997 SU) This course has been approved to satisfy the following requirement(s):

- Premajor and/or Elective course for A.A. and A.S.

COURSE DESCRIPTIONS

PED-113	Aerobics I	1 (0-3)	Fall Spring
Prerequisites: None Corequisites: None This course introduces a program of cardiovascular fitness involving continuous, rhythmic exercise. Emphasis is placed on developing cardiovascular efficiency, strength, and flexibility and on safety precautions. Upon completion, students should be able to select and implement a rhythmic aerobic exercise program.(1997 SU) This course has been approved to satisfy the following requirement(s): <ul style="list-style-type: none"> • Premajor and/or Elective course for A.A. and A.S. 			
PED-117	Weight Training I	1 (0-3)	Fall Spring Summer
Prerequisites: None Corequisites: None This course introduces the basics of weight training. Emphasis is placed on developing muscular strength, muscular endurance, and muscle tone. Upon completion, students should be able to establish and implement a personal weight training program.(1997 SU) This course has been approved to satisfy the following requirement(s): <ul style="list-style-type: none"> • Premajor and/or Elective course for A.A. and A.S. 			
PED-118	Weight Training II	1 (0-3)	Fall Spring
Prerequisites: PED-117 ^S Corequisites: None This course covers advanced levels of weight training. Emphasis is placed on meeting individual training goals and addressing weight training needs and interests. Upon completion, students should be able to establish and implement an individualized advanced weight training program.(1997 SU) This course has been approved to satisfy the following requirement(s): <ul style="list-style-type: none"> • Premajor and/or Elective course for A.A. and A.S. 			
PED-119	Circuit Training	1 (0-3)	AND
Prerequisites: None Corequisites: None This course covers the skills necessary to participate in a developmental fitness program. Emphasis is placed on the circuit training method which involves a series of conditioning timed stations arranged for maximum benefit and variety. Upon completion, students should be able to understand and appreciate the role of circuit training as a means to develop fitness.(1997 SU) This course has been approved to satisfy the following requirement(s): <ul style="list-style-type: none"> • Premajor and/or Elective course for A.A. and A.S. 			

PED-120	Walking for Fitness	1 (0-3)	Fall Spring Summer
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Prerequisites: None

Corequisites: None

This course introduces fitness through walking. Emphasis is placed on stretching, conditioning exercises, proper clothing, fluid needs, and injury prevention. Upon completion, students should be able to participate in a recreational walking program.(1997 SU) This course has been approved to satisfy the following requirement(s):

- Premajor and/or Elective course for A.A. and A.S.

PED-121	Walk, Jog, Run	1 (0-3)	AND
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Prerequisites: None

Corequisites: None

This course covers the basic concepts involved in safely and effectively improving cardiovascular fitness. Emphasis is placed on walking, jogging, or running as a means of achieving fitness. Upon completion, students should be able to understand and appreciate the benefits derived from these activities.(1997 SU)

This course has been approved to satisfy the following requirement(s):

- Premajor and/or Elective course for A.A. and A.S.

PED-122	Yoga I	1 (0-2)	Fall Spring Summer
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Prerequisites: None

Corequisites: None

This course introduces the basic discipline of yoga. Topics include proper breathing, relaxation techniques, and correct body positions. Upon completion, students should be able to demonstrate the procedures of yoga.(1997 SU) This course has been approved to satisfy the following requirement(s):

- Premajor and/or Elective course for A.A. and A.S.

PED-123	Yoga II	1 (0-2)	AND
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Prerequisites: PED-122^S

Corequisites: None

This course introduces more detailed aspects of the discipline of yoga. Topics include breathing and physical postures, relaxation, and mental concentration. Upon completion, students should be able to demonstrate advanced procedures of yoga.(1997 SU) This course has been approved to satisfy the following requirement(s):

- Premajor and/or Elective course for A.A. and A.S.

PED-125	Self-Defense: Beginning	1 (0-2)	AND
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Prerequisites: None

Corequisites: None

This course is designed to aid students in developing rudimentary skills in self-defense. Emphasis is placed on stances, blocks, punches, and kicks as well as non-physical means of self-defense. Upon completion, students should be able to demonstrate basic self-defense techniques of a physical and non-physical nature. (1997 SU) This course has been approved to satisfy the following requirement(s):

- Premajor and/or Elective course for A.A. and A.S.

COURSE DESCRIPTIONS

PED-128 Golf-Beginning 1 (0-2) Fall

Prerequisites: None**Corequisites:** None

This course emphasizes the fundamentals of golf. Topics include the proper grips, stance, alignment, swings for the short and long game, putting, and the rules and etiquette of golf. Upon completion, students should be able to perform the basic golf shots and demonstrate a knowledge of the rules and etiquette of golf.(1997 SU) This course has been approved to satisfy the following requirement(s):

- Premajor and/or Elective course for A.A. and A.S.

PED-129 Golf-Intermediate 1 (0-2) Fall

Prerequisites: PED-128^S**Corequisites:** None

This course covers the more advanced phases of golf. Emphasis is placed on refining the fundamental skills and learning more advanced phases of the games such as club selection, trouble shots, and course management. Upon completion, students should be able demonstrate the knowledge and ability to play a recreational round of golf.(1997 SU) This course has been approved to satisfy the following requirement(s):

- Premajor and/or Elective course for A.A. and A.S.

**PED-130 Tennis-Beginning 1 (0-2) Fall
Spring**

Prerequisites: None**Corequisites:** None

This course emphasizes the fundamentals of tennis. Topics include basic strokes, rules, etiquette, and court play. Upon completion, students should be able to play recreational tennis.(1997 SU) This course has been approved to satisfy the following requirement(s):

- Premajor and/or Elective course for A.A. and A.S.

PED-131 Tennis-Intermediate 1 (0-2) AND

Prerequisites: PED-130^S**Corequisites:** None

This course emphasizes the refinement of playing skills. Topics include continuing the development of fundamentals, learning advanced serves, and strokes and pace and strategies in singles and doubles play. Upon completion, students should be able to play competitive tennis.(1997 SU) This course has been approved to satisfy the following requirement(s):

- Premajor and/or Elective course for A.A. and A.S.

PED-135 Fencing-Beginning 1 (0-2) AND

Prerequisites: None**Corequisites:** None

This course introduces the fundamentals of fencing. Emphasis is placed on grip, stance, and establishment of good techniques for attacks and parries. Upon completion, students should be able to perform elementary foil techniques and demonstrate the basic skills of fencing.(1997 SU) This course has been approved to satisfy the following requirement(s):

- Premajor and/or Elective course for A.A. and A.S.

PED-137 Badminton 1 (0-2) AND**Prerequisites:** None**Corequisites:** None

This course covers the fundamentals of badminton. Emphasis is placed on the basics of serving, clears, drops, drives, smashes, and the rules and strategies of singles and doubles. Upon completion, students should be able to apply these skills in playing situations.(1997 SU) This course has been approved to satisfy the following requirement(s):

- Premajor and/or Elective course for A.A. and A.S.

PED-138 Archery 1 (0-2) AND**Prerequisites:** None**Corequisites:** None

This course introduces basic archery safety and skills. Topics include proper techniques of stance, bracing, drawing, and releasing as well as terminology and scoring. Upon completion, students should be able to participate safely in target archery.(1997 SU) This course has been approved to satisfy the following requirement(s):

- Premajor and/or Elective course for A.A. and A.S.

PED-142 Lifetime Sports 1 (0-2) AND**Prerequisites:** None**Corequisites:** None

This course is designed to give an overview of a variety of sports activities. Emphasis is placed on the skills and rules necessary to participate in a variety of lifetime sports. Upon completion, students should be able to demonstrate an awareness of the importance of participating in lifetime sports activities.(1997 SU) This course has been approved to satisfy the following requirement(s):

- Premajor and/or Elective course for A.A. and A.S.

**PED-143 Volleyball-Beginning 1 (0-2) Fall
Spring****Prerequisites:** None**Corequisites:** None

This course covers the fundamentals of volleyball. Emphasis is placed on the basics of serving, passing, setting, spiking, blocking, and the rules and etiquette of volleyball. Upon completion, students should be able to participate in recreational volleyball.(1997 SU) This course has been approved to satisfy the following requirement(s):

- Premajor and/or Elective course for A.A. and A.S.

**PED-145 Basketball-Beginning 1 (0-2) Fall
Spring****Prerequisites:** None**Corequisites:** None

This course covers the fundamentals of basketball. Emphasis is placed on skill development, knowledge of the rules, and basic game strategy. Upon completion, students should be able to participate in recreational basketball.(1997 SU) This course has been approved to satisfy the following requirement(s):

- Premajor and/or Elective course for A.A. and A.S.

COURSE DESCRIPTIONS

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|--|------------------------------|----------------|------------|
| PED-147 | Soccer | 1 (0-2) | AND |
| Prerequisites: None | | | |
| Corequisites: None | | | |
| This course introduces the basics of soccer. Emphasis is placed on rules, strategies, and fundamental skills. Upon completion, students should be able to participate in recreational soccer.(1997 SU) This course has been approved to satisfy the following requirement(s): | | | |
| <ul style="list-style-type: none"> • Premajor and/or Elective course for A.A. and A.S. | | | |
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| PED-149 | Flag Football | 1 (0-2) | AND |
| Prerequisites: None | | | |
| Corequisites: None | | | |
| This course introduces the fundamentals and rules of flag football. Emphasis is placed on proper techniques and strategies for playing in game situations. Upon completion, students should be able to participate in recreational flag football. (1997 SU) This course has been approved to satisfy the following requirement(s): | | | |
| <ul style="list-style-type: none"> • Premajor and/or Elective course for A.A. and A.S. | | | |
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| PED-152 | Swimming-Beginning | 1 (0-2) | AND |
| Prerequisites: None | | | |
| Corequisites: None | | | |
| This course is designed for non-swimmers and beginners. Emphasis is placed on developing confidence in the water, learning water safety, acquiring skills in floating, and learning elementary strokes. Upon completion, students should be able to demonstrate safety skills and be able to tread water, back float, and use the crawl stroke for 20 yards.(1997 SU) This course has been approved to satisfy the following requirement(s): | | | |
| <ul style="list-style-type: none"> • Premajor and/or Elective course for A.A. and A.S. | | | |
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| PED-153 | Swimming-Intermediate | 1 (0-2) | AND |
| Prerequisites: PED-152 ^S | | | |
| Corequisites: None | | | |
| This course is designed for those who have mastered basic swimming skills. Emphasis is placed on refining basic skills and learning new swim strokes. Upon completion, students should be able to demonstrate the four basic strokes, the scissors kick, the underwater swim, and other related skills.(1997 SU) This course has been approved to satisfy the following requirement(s): | | | |
| <ul style="list-style-type: none"> • Premajor and/or Elective course for A.A. and A.S. | | | |
| | | | |
| PED-154 | Swimming for Fitness | 1 (0-3) | AND |
| Prerequisites: None | | | |
| Corequisites: None | | | |
| This course introduces lap swimming, aquacises, water activities, and games. Emphasis is placed on increasing cardiovascular efficiency through aquatic exercise. Upon completion, students should be able to develop an individualized aquatic fitness program.(1997 SU) This course has been approved to satisfy the following requirement(s): | | | |
| <ul style="list-style-type: none"> • Premajor and/or Elective course for A.A. and A.S. | | | |

PED-157 Pickleball 1 (0-2) AND**Prerequisites:** None**Corequisites:** None

This course covers the fundamentals of pickleball. Emphasis is placed on the basics of serving, ground strokes (drives, drops, dinks, punches, and lobs), overhead strokes (smashes and slams), and the rules and strategies of singles and doubles play. Upon completion, students should be able to apply these skills in pickleball playing situations. (2017 FA) This course has been approved to satisfy the following requirement(s):

- Premajor and/or Elective course for A.A. and A.S.

PED-160 Canoeing-Basic 1 (0-2) AND**Prerequisites:** None**Corequisites:** None

This course provides basic instruction for the beginning canoeist. Emphasis is placed on safe and correct handling of the canoe and rescue skills. Upon completion, students should be able to demonstrate basic canoeing, safe-handling, and self-rescue skills.(2007 SP) This course has been approved to satisfy the following requirement(s):

- Premajor and/or Elective course for A.A. and A.S.

PED-161 Canoeing-Rivers 1 (0-2) AND**Prerequisites:** PED-160^S**Corequisites:** None

This course provides practice in the basic skills of river and whitewater canoeing. Emphasis is placed on river running, safety, and care of equipment. Upon completion, students should be able to demonstrate navigation in a moving current, canoe safety, and self-rescue skills.(1997 SU) This course has been approved to satisfy the following requirement(s):

- Premajor and/or Elective course for A.A. and A.S.

PED-162 Angling 1 (0-2) AND**Prerequisites:** None**Corequisites:** None

This course introduces the sport of angling. Emphasis is placed on fishing with the use of artificial lures. Upon completion, students should be able to cast and retrieve using baitcaster and spinning reels and identify the various types of artificial lures.(1997 SU) This course has been approved to satisfy the following requirement(s):

- Premajor and/or Elective course for A.A. and A.S.

PED-163 Kayaking-Basic 1 (0-2) AND**Prerequisites:** None**Corequisites:** None

This course is designed to teach the basic skills of kayaking. Topics include forward and reverse strokes, sweeps, Eskimo roll, and self-rescue skills. Upon completion, students should be able to maneuver and demonstrate safe kayaking practices.(2007 SP) This course has been approved to satisfy the following requirement(s):

- Premajor and/or Elective course for A.A. and A.S.

COURSE DESCRIPTIONS

PED-169 Orienteering 1 (0-2) AND**Prerequisites:** None**Corequisites:** None

This course introduces the various types of orienteering and proper orienteering techniques. Emphasis is placed on defining various types of orienteering and recognizing and drawing topographic map symbols. Upon completion, students should be able to draw topographic map symbols and negotiate a 3-5 km cross-country orienteering course in a specified time period.(1997 SU) This course has been approved to satisfy the following requirement(s):

- Premajor and/or Elective course for A.A. and A.S.

PED-170 Backpacking 1 (0-2) AND**Prerequisites:** None**Corequisites:** None

This course covers the proper techniques for establishing a campsite, navigating in the wilderness, and planning for an overnight trip. Topics include planning for meals, proper use of maps and compass, and packing and dressing for extended periods in the outdoors. Upon completion, students should be able to identify quality backpacking equipment, identify the principles of no-trace camping, and successfully complete a backpacking experience.(1997 SU) This course has been approved to satisfy the following requirement(s):

- Premajor and/or Elective course for A.A. and A.S.

PED-173 Rock Climbing 1 (0-2) AND**Prerequisites:** None**Corequisites:** None

This course teaches the fundamental skills and safety of rock climbing. Topics include rock climbing, bouldering, rappelling, the correct method of belaying for climbing and rappelling, and knowledge of equipment. Upon completion, students should be able to demonstrate strong and skillful techniques in climbing and rappelling.(1997 SU) This course has been approved to satisfy the following requirement(s):

- Premajor and/or Elective course for A.A. and A.S.

PED-174 Wilderness Pursuits 1 (0-2) AND**Prerequisites:** None**Corequisites:** None

This course covers the skills necessary to prepare for and participate in a wilderness trip. Emphasis is placed on planning, preparing, and participating in a wilderness pack trip. Upon completion, students should be able to safely participate in overnight wilderness pack trips.(1997 SU) This course has been approved to satisfy the following requirement(s):

- Premajor and/or Elective course for A.A. and A.S.

PED-181 Snow Skiing-Beginning 1 (0-2) AND**Prerequisites:** None**Corequisites:** None

This course introduces the fundamentals of snow skiing. Topics include basic techniques, safety, and equipment involved in snow skiing. Upon completion, students should be able to ski a down slope, enter and exit a ski lift, and perform basic maneuvers on skis.(1997 SU) This course has been approved to satisfy the following requirement(s):

- Premajor and/or Elective course for A.A. and A.S.

PED-186 Dancing for Fitness 1 (0-2) AND**Prerequisites:** None**Corequisites:** None

This course is designed to develop movement and recreational dance skills, safety, fitness, coordination, and techniques used to teach various groups. Emphasis is placed on participation and practice with adapting dances for ages and ability levels. Upon completion, students should be able to demonstrate knowledge of fitness through social, folk, and square dance participation and instruction.(1997 SU) This course has been approved to satisfy the following requirement(s):

- Premajor and/or Elective course for A.A. and A.S.

PED-187 Social Dance-Beginning 1 (0-2) AND**Prerequisites:** None**Corequisites:** None

This course introduces the fundamentals of popular social dances. Emphasis is placed on basic social dance techniques, dances, and a brief history of social dance. Upon completion, students should be able to demonstrate specific dance skills and perform some dances.(1997 SU) This course has been approved to satisfy the following requirement(s):

- Premajor and/or Elective course for A.A. and A.S.

PED-212 Snowboarding-Beginning 1 (0-2) AND**Prerequisites:** None**Corequisites:** None

This course is designed to develop the basic knowledge and skills of snowboarding. Topics include equipment, conditioning exercises, terminology, safety, rules, fundamental skills, and the use of lifts. Upon completion, students should be able to snowboard downhill, enter and exit a ski lift, and perform basic maneuvers on a snowboard.(2002 SP) This course has been approved to satisfy the following requirement(s):

- Premajor and/or Elective course for A.A. and A.S.

PED-217 Pilates I 1 (0-2) AND**Prerequisites:** None**Corequisites:** None

This course provides an introduction to the pilates method of body conditioning exercise. Topics include instruction in beginning and intermediate pilates exercises using a mat or equipment, history of pilates method, and relevant anatomy and physiology. Upon completion, students should be able to perform beginning and intermediate exercises, and possess an understanding of the benefits of conditioning the body's core muscles.(2005 SU) This course has been approved to satisfy the following requirement(s):

- Premajor and/or Elective course for A.A. and A.S.

COURSE DESCRIPTIONS

PED-218 Pilates II 1 (0-2) AND

Prerequisites: PED-217^S

Corequisites: None

This course provides continued instruction to the pilates method of body conditioning exercise. Topics include instruction in intermediate and advanced pilates exercises using a mat or equipment, relevant anatomy and physiology, and further discussion of related concepts. Upon completion, students should be able to perform intermediate and advanced exercises, and possess the autonomy to maintain their own personal pilates practice.(2005 SU) This course has been approved to satisfy the following requirement(s):

- Premajor and/or Elective course for A.A. and A.S.

PED-219 Disc Golf 1 (0-2) AND

Prerequisites: None

Corequisites: None

This course introduces the fundamentals of disc golf. Emphasis is placed on basic throwing techniques, putting, distance driving, scoring, and single and doubles play. Upon completion, students should be able to perform the skills required in playing situations.(2009 SU) This course has been approved to satisfy the following requirement(s):

- Premajor and/or Elective course for A.A. and A.S.

PED-254 Coaching Basketball 2 (1-2) AND

Prerequisites: None

Corequisites: None

This course introduces the theory and methods of coaching basketball. Emphasis is placed on rules, game strategies, and selected techniques of coaching basketball. Upon completion, students should be able to demonstrate competent coaching skills in basketball.(1997 SU) This course has been approved to satisfy the following requirement(s):

- Premajor and/or Elective course for A.A. and A.S.

PHI PHILOSOPHY

**PHI-215 Philosophical Issues 3 (3-0) Fall
Spring
Summer**

Prerequisites: ENG-111^S

Corequisites: None

This course introduces fundamental issues in philosophy considering the views of classical and contemporary philosophers. Emphasis is placed on knowledge and belief, appearance and reality, determinism and free will, faith and reason, and justice and inequality. Upon completion, students should be able to identify, analyze, and critically evaluate the philosophical components of an issue.(2014 FA) This course has been approved to satisfy the following requirement(s):

- UGETC course for A.A., A.A. Teacher Preparation, A.E., A.F.A., A.S. and A.S. Teacher Preparation
- Humanities/Fine Arts Gen. Ed. course for A.A.S. and A.G.E.

PHI-240	Introduction to Ethics	3 (3-0)	Fall Spring Summer
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Prerequisites: ENG-111^S

Corequisites: None

This course introduces theories about the nature and foundations of moral judgments and applications to contemporary moral issues. Emphasis is placed on moral theories such as consequentialism, deontology, and virtue ethics. Upon completion, students should be able to apply various ethical theories to moral issues such as abortion, capital punishment, poverty, war, terrorism, the treatment of animals, and issues arising from new technologies.(2014 FA) This course has been approved to satisfy the following requirement(s):

- UGETC course for A.A., A.A. Teacher Preparation, A.E., A.F.A., A.S. and A.S. Teacher Preparation
- Humanities/Fine Arts Gen. Ed. course for A.A.S. and A.G.E.

PHY PHYSICS

PHY-110	Conceptual Physics	3 (3-0)	Fall Spring
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Prerequisites: MAT-003^L or BSP-4003^L

Corequisites: PHY-110A^L

This course provides a conceptually-based exposure to the fundamental principles and processes of the physical world. Topics include basic concepts of motion, forces, energy, heat, electricity, magnetism, and the structure of matter and the universe. Upon completion, students should be able to describe examples and applications of the principles studied.(1997 SU) This course has been approved to satisfy the following requirement(s):

- UGETC course for A.A., A.A. Teacher Preparation, and A.F.A.
- Natural Science Gen. Ed. course for A.S. and A.S. Teacher Preparation
- Natural Science Gen. Ed. course for A.A.S. and A.G.E.

PHY-110A	Conceptual Physics Lab	1 (0-2)	Fall Spring
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Prerequisites: MAT-003^L or BSP-4003^L

Corequisites: PHY-110^S

This course is a laboratory for PHY 110. Emphasis is placed on laboratory experiences that enhance materials presented in PHY 110. Upon completion, students should be able to apply the laboratory experiences to the concepts presented in PHY 110.(1997 SU) This course has been approved to satisfy the following requirement(s):

- UGETC course for A.A., A.A. Teacher Preparation, and A.F.A.
- Natural Science Gen. Ed. course for A.S. and A.S. Teacher Preparation
- Natural Science Gen. Ed. course for A.A.S. and A.G.E.

COURSE DESCRIPTIONS

PHY-131 Physics-Mechanics 4 (3-2) Summer

Prerequisites: MAT-121^S or MAT-171^S

Corequisites: None

This algebra/trigonometry-based course introduces fundamental physical concepts as applied to engineering technology fields. Topics include systems of units, problem-solving methods, graphical analysis, vectors, motion, forces, Newton's laws of motion, work, energy, power, momentum, and properties of matter. Upon completion, students should be able to apply the principles studied to applications in engineering technology fields.(2014 FA) This course has been approved to satisfy the following requirement(s):

- Natural Science Gen. Ed. course for A.G.E.

**PHY-151 College Physics I 4 (3-2) Fall
Summer**

Prerequisites: MAT-171^S or MAT-271^S

Corequisites: None

This course uses algebra- and trigonometry-based mathematical models to introduce the fundamental concepts that describe the physical world. Topics include units and measurement, vectors, linear kinematics and dynamics, energy, power, momentum, fluid mechanics, and heat. Upon completion, students should be able to demonstrate an understanding of the principles involved and display analytical problem-solving ability for the topics covered.(2018 SP) This course has been approved to satisfy the following requirement(s):

- UGETC course for A.S. and A.S. Teacher Preparation
- Natural Science Gen. Ed. course for A.A. and A.A. Teacher Preparation
- Natural Science Gen. Ed. course for A.G.E.

PHY-152 College Physics II 4 (3-2) Spring

Prerequisites: PHY-151^S

Corequisites: None

This course uses algebra- and trigonometry-based mathematical models to introduce the fundamental concepts that describe the physical world. Topics include electrostatic forces, electric fields, electric potentials, direct-current circuits, magnetostatic forces, magnetic fields, electromagnetic induction, alternating-current circuits, and light. Upon completion, students should be able to demonstrate an understanding of the principles involved and display analytical problem-solving ability for the topics covered.(1997 SU) This course has been approved to satisfy the following requirement(s):

- UGETC course for A.S. and A.S. Teacher Preparation
- Natural Science Gen. Ed. course for A.A. and A.A. Teacher Preparation
- Natural Science Gen. Ed. course for A.G.E.

PHY-251 General Physics I 4 (3-3) Fall**Prerequisites:** MAT-271^S**Corequisites:** MAT-272^S

This course uses calculus-based mathematical models to introduce the fundamental concepts that describe the physical world. Topics include units and measurement, vector operations, linear kinematics and dynamics, energy, power, momentum, rotational mechanics, periodic motion, fluid mechanics, and heat. Upon completion, students should be able to demonstrate an understanding of the principles involved and display analytical problem-solving ability for the topics covered.(1997 SU) This course has been approved to satisfy the following requirement(s):

- UGETC course for A.E., A.S. and A.S. Teacher Preparation
- Natural Science Gen. Ed. course for A.A. and A.A. Teacher Preparation

PHY-252 General Physics II 4 (3-3) Spring**Prerequisites:** MAT-272^S and PHY-251^S**Corequisites:** None

This course uses calculus-based mathematical models to introduce the fundamental concepts that describe the physical world. Topics include electrostatic forces, electric fields, electric potentials, direct-current circuits, magnetostatic forces, magnetic fields, electromagnetic induction, alternating-current circuits, and light. Upon completion, students should be able to demonstrate an understanding of the principles involved and display analytical problem-solving ability for the topics covered.(1997 SU) This course has been approved to satisfy the following requirement(s):

- UGETC course for A.E., A.S. and A.S. Teacher Preparation
- Natural Science Gen. Ed. course for A.A. and A.A. Teacher Preparation

POL POLITICAL SCIENCE**POL-110 Intro Political Science 3 (3-0) AND****Prerequisites:** ENG-002^L or BSP-4002^L**Corequisites:** None

This course introduces basic political concepts used by governments and addresses a wide range of political issues. Topics include political theory, ideologies, legitimacy, and sovereignty in democratic and non-democratic systems. Upon completion, students should be able to discuss a variety of issues inherent in all political systems and draw logical conclusions in evaluating these systems.(1997 SU) This course has been approved to satisfy the following requirement(s):

- Social/Behavioral Science Gen. Ed. course for A.A., A.A. Teacher Preparation and A.S.
- Social/Behavioral Science Gen. Ed. course for A.A.S. and A.G.E.

POL-120	American Government	3 (3-0)	Fall Spring Summer
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Prerequisites: ENG-002^L or BSP-4002^L

Corequisites: None

This course is a study of the origins, development, structure, and functions of American government. Topics include the constitutional framework, federalism, the three branches of government including the bureaucracy, civil rights and liberties, political participation and behavior, and policy process. Upon completion, students should be able to demonstrate an understanding of the basic concepts and participatory processes of the American political system.(2014 FA) This course has been approved to satisfy the following requirement(s):

- UGETC course for A.A., A.A. Teacher Preparation, A.E., A.F.A., A.S. and A.S. Teacher Preparation
- Social/Behavioral Science Gen. Ed. course for A.A.S. and A.G.E

POL-210	Comparative Government	3 (3-0)	AND
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Prerequisites: ENG-002^L or BSP-4002^L

Corequisites: None

This course provides a cross-national perspective on the government and politics of contemporary nations such as Great Britain, France, Germany, and Russia. Topics include each country's historical uniqueness, key institutions, attitudes and ideologies, patterns of interaction, and current political problems. Upon completion, students should be able to identify and compare various nations' governmental structures, processes, ideologies, and capacity to resolve major problems.(1997 SU) This course has been approved to satisfy the following requirement(s):

- Social/Behavioral Science Gen. Ed. course for A.A., A.A. Teacher Preparation and A.S.
- Social/Behavioral Science Gen. Ed. course for A.A.S. and A.G.E.

POL-220	International Relations	3 (3-0)	AND
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Prerequisites: ENG-002^L or BSP-4002^L

Corequisites: None

This course provides a study of the effects of ideologies, trade, armaments, and alliances on relations among nation-states. Emphasis is placed on regional and global cooperation and conflict, economic development, trade, non-governmental organizations, and international institutions such as the World Court and UN. Upon completion, students should be able to identify and discuss major international relationships, institutions, and problems.(1997 SU) This course has been approved to satisfy the following requirement(s):

- Social/Behavioral Science Gen. Ed. course for A.A., A.A. Teacher Preparation and A.S.
- Social/Behavioral Science Gen. Ed. course for A.A.S. and A.G.E

PSY PSYCHOLOGY

PSY-118 Interpersonal Psychology 3 (3-0) Spring

Prerequisites: ENG-002^L or BSP-4002^L

Corequisites: None

This course introduces the basic principles of psychology as they relate to personal and professional development. Emphasis is placed on personality traits, communication/leadership styles, effective problem solving, and cultural diversity as they apply to personal and work environments. Upon completion, students should be able to demonstrate an understanding of these principles of psychology as they apply to personal and professional development.(1997 SU) This course has been approved to satisfy the following requirement(s):

- Social/Behavioral Science Gen. Ed. course for A.A.S. and A.G.E

**PSY-150 General Psychology 3 (3-0) Fall
Spring
Summer**

Prerequisites: ENG-002^L or BSP-4002^L

Corequisites: None

This course provides an overview of the scientific study of human behavior. Topics include history, methodology, biopsychology, sensation, perception, learning, motivation, cognition, abnormal behavior, personality theory, social psychology, and other relevant topics. Upon completion, students should be able to demonstrate a basic knowledge of the science of psychology.(1997 SU) This course has been approved to satisfy the following requirement(s):

- UGETC course for A.A., A.A. Teacher Preparation, A.E., A.F.A., A.S. and A.S. Teacher Preparation
- Social/Behavioral Science Gen. Ed. course for A.A.S. and A.G.E

PSY-230 Biological Psychology 3 (3-0) AND

Prerequisites: PSY-150^S

Corequisites: None

This course provides an exploration of the anatomy and functions of the human nervous system as it relates to human behavior. Topics include neural communication, key brain and nervous system anatomy and functions, brain and behavior relationships, sensory systems (key anatomy and functions), and neurological/psychological disorders. Upon completion, students should be able to describe how new scientific knowledge is created, identify methods to study psychological phenomena, identify key nervous system structures and functions, explain basic psychological phenomena and identify associated brain structures, and describe characteristics of selected neurological/psychological disorders. (2019 SP) This course has been approved to satisfy the following requirement(s):

- Premajor and/or Elective course for A.A. and A.S.
- Social/Behavioral Science Gen. Ed. course for A.A.S. and A.G.E

COURSE DESCRIPTIONS

PSY-231 Forensic Psychology 3 (3-0) Spring**Prerequisites:** PSY-150^S**Corequisites:** None

This course introduces students to concepts which unite psychology and the legal system. Topics include defining competency, insanity, involuntary commitment, as well as introducing forensic assessment techniques, such as interviewing process, specialized assessments, and collecting collateral information. Upon completion, students should be able to demonstrate knowledge in areas of forensic psychology: risk assessment, criminal competencies, insanity, psychopathology, and mentally disordered offenders.(2004 SU) This course has been approved to satisfy the following requirement(s):

- Premajor and/or Elective course for A.A. and A.S.

PSY-237 Social Psychology 3 (3-0) AND**Prerequisites:** PSY-150^S or SOC-210^S**Corequisites:** None

This course introduces the study of individual behavior within social contexts. Topics include affiliation, attitude formation and change, conformity, altruism, aggression, attribution, interpersonal attraction, and group behavior. Upon completion, students should be able to demonstrate an understanding of the basic principles of social influences on behavior.(1997 SU) This course has been approved to satisfy the following requirement(s):

- Social/Behavioral Science Gen. Ed. course for A.A., A.A. Teacher Preparation and A.S.
- Social/Behavioral Science Gen. Ed. course for A.A.S. and A.G.E.

PSY-239 Psychology of Personality 3 (3-0) Fall**Prerequisites:** PSY-150^S**Corequisites:** None

This course covers major personality theories and personality research methods. Topics include psychoanalytic, behavioristic, social learning, cognitive, humanistic, and trait theories including supporting research. Upon completion, students should be able to compare and contrast traditional and contemporary approaches to the understanding of individual differences in human behavior.(1997 SU) This course has been approved to satisfy the following requirement(s):

- Social/Behavioral Science Gen. Ed. course for A.A., A.A. Teacher Preparation and A.S.
- Social/Behavioral Science Gen. Ed. course for A.A.S. and A.G.E.

**PSY-241 Developmental Psych 3 (3-0) Fall
Spring
Summer****Prerequisites:** PSY-150^S**Corequisites:** None

This course is a study of human growth and development. Emphasis is placed on major theories and perspectives as they relate to the physical, cognitive, and psychosocial aspects of development from conception to death. Upon completion, students should be able to demonstrate knowledge of development across the life span.(1997 SU) This course has been approved to satisfy the following requirement(s):

- Social/Behavioral Science Gen. Ed. course for A.A., A.A. Teacher Preparation and A.S.
- Social/Behavioral Science Gen. Ed. course for A.A.S. and A.G.E.

PSY-243 Child Psychology 3 (3-0) AND**Prerequisites:** PSY-150^S**Corequisites:** None

This course provides an overview of physical, cognitive, and psychosocial development from conception through adolescence. Topics include theories and research, interaction of biological and environmental factors, language development, learning and cognitive processes, social relations, and moral development. Upon completion, students should be able to identify typical and atypical childhood behavior patterns as well as appropriate strategies for interacting with children.(1997 SU) This course has been approved to satisfy the following requirement(s):

- Premajor and/or Elective course for A.A. and A.S.
- Social/Behavioral Science Gen. Ed. course for A.A.S. and A.G.E.

PSY-249 Psychology of Aging 3 (3-0) AND**Prerequisites:** PSY-150^S**Corequisites:** None

This course covers the particular needs and behaviors of the maturing adult. Emphasis is placed on psychosocial processes biological and intellectual aspects of aging adjustments to retirement, dying, bereavement and the stereotypes and misconceptions concerning the elderly. Upon completion, students should be able to show an understanding of the psychological factors related to the aging process.(1997 SU) This course has been approved to satisfy the following requirement(s):

- Premajor and/or Elective course for A.A. and A.S.
- Social/Behavioral Science Gen. Ed. course for A.A.S. and A.G.E.

PSY-259 Human Sexuality 3 (3-0) AND**Prerequisites:** PSY-150^S**Corequisites:** None

This course provides the biological, psychological, and sociocultural aspects of human sexuality and related research. Topics include reproductive biology, sexual and psychosexual development, sexual orientation, contraception, sexually transmitted diseases, sexual disorders, theories of sexuality, and related issues. Upon completion, students should be able to demonstrate an overall knowledge and understanding of human sexuality.(1997 SU) This course has been approved to satisfy the following requirement(s):

- Premajor and/or Elective course for A.A. and A.S.
- Social/Behavioral Science Gen. Ed. course for A.A.S. and A.G.E.

PSY-263 Educational Psychology 3 (3-0) Summer**Prerequisites:** PSY-150^S**Corequisites:** None

This course examines the application of psychological theories and principles to the educational process and setting. Topics include learning and cognitive theories, achievement motivation, teaching and learning styles, teacher and learner roles, assessment, and developmental issues. Upon completion, students should be able to demonstrate an understanding of the application of psychological theory to educational practice.(1997 SU) This course has been approved to satisfy the following requirement(s):

- Premajor and/or Elective course for A.A. and A.S.
- Social/Behavioral Science Gen. Ed. course for A.A.S. and A.G.E.

COURSE DESCRIPTIONS

PSY-271 Sports Psychology 3 (3-0) AND**Prerequisites:** PSY-150^S**Corequisites:** None

This course provides an overview of the field of sports and exercise psychology. Topics include concentration, goal setting, arousal level, exercise psychology, mental imagery, confidence, and other issues related to sport and exercise performance. Upon completion, students should be able to demonstrate a knowledge of psychological factors involved in sport and exercise.(1997 SU) This course has been approved to satisfy the following requirement(s):

- Premajor and/or Elective course for A.A. and A.S.
- Social/Behavioral Science Gen. Ed. course for A.A.S. and A.G.E.

PSY-275 Health Psychology 3 (3-0) AND**Prerequisites:** PSY-150^S**Corequisites:** None

This course covers the biopsychosocial dynamics of stress and the maintenance of good health. Topics include enhancing health and well-being, stress management, lifestyle choices and attitudes, the mind-body relationship, nutrition, exercise, and fitness. Upon completion, students should be able to demonstrate an understanding of the psychological factors related to health and well-being.(1997 SU) This course has been approved to satisfy the following requirement(s):

- Premajor and/or Elective course for A.A. and A.S.
- Social/Behavioral Science Gen. Ed. course for A.A.S. and A.G.E.

**PSY-281 Abnormal Psychology 3 (3-0) Fall
Spring
Summer****Prerequisites:** PSY-150^S**Corequisites:** None

This course provides an examination of the various psychological disorders, as well as theoretical, clinical, and experimental perspectives of the study of psychopathology. Emphasis is placed on terminology, classification, etiology, assessment, and treatment of the major disorders. Upon completion, students should be able to distinguish between normal and abnormal behavior patterns as well as demonstrate knowledge of etiology, symptoms, and therapeutic techniques.(1997 SU) This course has been approved to satisfy the following requirement(s):

- Social/Behavioral Science Gen. Ed. course for A.A., A.A. Teacher Preparation and A.S.
- Social/Behavioral Science Gen. Ed. course for A.A.S. and A.G.E.

RAD RADIOGRAPHY

RAD-110 Rad Intro & Patient Care 3 (2-3) Fall**Prerequisites:** None**Corequisites:** RAD-111^L and RAD-151^L

This course provides an overview of the radiography profession and student responsibilities. Emphasis is placed on basic principles of patient care, radiation protection, technical factors, and medical terminology. Upon completion, students should be able to demonstrate basic skills in these areas.(2022 SU)

RAD-111	RAD Procedures I	4 (3-3)	Fall
Prerequisites:	None		
Corequisites:	RAD-111 ^L and RAD-151 ^L		
This course provides the knowledge and skills necessary to perform standard radiographic procedures. Emphasis is placed on radiography of the chest, abdomen, extremities, bony thorax and pelvis. Upon completion, students should be able to demonstrate competence in these areas.(2017 FA)			
RAD-112	RAD Procedures II	4 (3-3)	Spring
Prerequisites:	RAD-110 ^L , RAD-111 ^L and RAD-151 ^L		
Corequisites:	RAD-121 ^L and RAD-161 ^L		
This course provides the knowledge and skills necessary to perform standard radiographic procedures. Emphasis is placed on radiography of the skull, spine, and gastrointestinal, biliary, and urinary systems. Upon completion, students should be able to demonstrate competence in these areas.(2022 SU)			
RAD-121	Image Production I	3 (2-3)	Spring
Prerequisites:	RAD-110 ^L , RAD-111 ^L and RAD-151 ^L		
Corequisites:	RAD-112 ^L and RAD-161 ^L		
This course provides the basic principles of radiographic image production. Emphasis is placed on image production, x-ray equipment, receptor exposure, and basic imaging quality factors. Upon completion, students should be able to demonstrate an understanding of basic principles of radiographic image production.(2022 SU)			
RAD-122	Image Production II	2 (1-3)	Summer
Prerequisites:	RAD-112 ^L , RAD-121 ^L and RAD-161 ^L		
Corequisites:	RAD-141 ^L and RAD-171 ^L		
This course is designed to continue to develop the concepts and principles in the field of radiologic technology. Emphasis is placed on advanced digital principles and production. Upon completion, students should be able to demonstrate an understanding of advanced principles of digital imaging production.(2022 SU)			
RAD-141	Radiation Safety	2 (2-0)	Summer
Prerequisites:	RAD-112 ^L , RAD-121 ^L and RAD-161 ^L		
Corequisites:	RAD-122 ^L and RAD-171 ^L		
This course covers the principles of radiation protection and radiobiology. Topics include the effects of ionizing radiation on body tissues, protective measures for limiting exposure to the patient and personnel, and radiation monitoring devices. Upon completion, students should be able to demonstrate an understanding of the effects and uses of radiation in diagnostic radiology.(2022 SU)			
RAD-151	RAD Clinical Ed I	2 (0-0-6)	Fall
Prerequisites:	None		
Corequisites:	RAD-110 ^L and RAD-111 ^L		
This course introduces patient management and basic radiographic procedures in the clinical setting. Emphasis is placed on mastering positioning of the chest and extremities, manipulating equipment, and applying principles of ALARA. Upon completion, students should be able to demonstrate successful completion of clinical objectives.(2022 SU)			

COURSE DESCRIPTIONS

RAD-161	RAD Clinical Ed II	5 (0-0-15)	Spring
Prerequisites: RAD-110 ^L , RAD-111 ^L and RAD-151 ^L Corequisites: RAD-112 ^L and RAD-121 ^L This course provides additional experience in patient management and in more complex radiographic procedures. Emphasis is placed on mastering positioning of the spine, pelvis, head and neck, and thorax and adapting procedures to meet patient variations. Upon completion, students should be able to demonstrate successful completion of clinical objectives.(2022 SU)			
RAD-171	RAD Clinical Ed III	3 (0-0-9)	Summer
Prerequisites: RAD-112 ^L , RAD-121 ^L and RAD-161 ^L Corequisites: RAD-122 ^L and RAD-141 ^L This course provides experience in patient management specific to advanced radiographic procedures. Emphasis is placed on applying appropriate technical factors to all studies and transitioning to mastering positioning of advanced studies. Upon completion, students should be able to demonstrate successful completion of clinical objectives.(2022 SU)			
RAD-211	RAD Procedures III	3 (2-3)	Fall
Prerequisites: RAD-122 ^L , RAD-141 ^L , and RAD-171 ^L Corequisites: RAD-231 ^L and RAD-251 ^L This course provides the knowledge and skills necessary to perform standard and specialty radiographic procedures. Emphasis is placed on radiographic specialty procedures, advanced imaging, radiographic pathology and image analysis. Upon completion, students should be able to demonstrate an understanding of these areas.(2022 SU)			
RAD-231	Image Production III	2 (1-3)	Fall
Prerequisites: RAD-122 ^L , RAD-141 ^L , and RAD-171 ^L Corequisites: RAD-211 ^L and RAD-251 ^L This course is designed to continue to develop the concepts and principles in the field of radiologic technology. Emphasis is placed on complex imaging production and principles, quality control and quality assurance in the imaging sciences. Upon completion, students should be able to demonstrate an understanding of advanced radiographic equipment and quality control programs.(2022 SU)			
RAD-251	RAD Clinical Ed IV	7 (0-0-21)	Fall
Prerequisites: RAD-122 ^L , RAD-141 ^L , and RAD-171 ^L Corequisites: RAD-211 ^L and RAD-231 ^L This course provides the opportunity to continue mastering all basic radiographic procedures and to attain experience in advanced areas. Emphasis is placed on equipment operation, pathological recognition, pediatric and geriatric variations, and further awareness of radiation protection requirements. Upon completion, students should be able to demonstrate successful completion of clinical objectives.(2022 SU)			

RAD-261	RAD Clinical Ed V	7	Spring
		(0-0-21)	

Prerequisites: RAD-211^L, RAD-231^L, and RAD-251^L

Corequisites: RAD-271^L

This course is designed to enhance expertise in all radiographic procedures, patient management, radiation protection, and image production and evaluation. Emphasis is placed on developing an autonomous approach to the diversity of clinical situations and successfully adapting to those procedures. Upon completion, students should be able to demonstrate successful completion of clinical objectives.(2022 SU)

RAD-271	Radiography Capstone	3 (2-3)	Spring
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Prerequisites: RAD-211^L, RAD-231^L, and RAD-251^L

Corequisites: RAD-261^L

This course provides an opportunity to exhibit problem-solving skills required for certification. Emphasis is placed on critical thinking and integration of didactic and clinical components. Upon completion, students should be able to demonstrate the knowledge required of an entry-level radiographer.(2022 SU)

RCP RESPIRATORY CARE

RCP-110	Intro to Respiratory Care	4 (3-3)	Fall
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Prerequisites: None

Corequisites: None

This course introduces the role of the respiratory care practitioner within interprofessional teams and interacting with diverse populations. Topics include medical gas administration, basic patient assessment, infection control, and medical terminology using proper written and oral communication methods to prepare students for clinical practice. Upon completion, students should be able to demonstrate competence in respiratory therapy concepts and procedures through written and laboratory evaluations.(2017 FA)

RCP-111	Therapeutics/Diagnostics	5 (4-3)	Spring
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Prerequisites: RCP-110^S

Corequisites: None

This course provides emphasis on therapeutic and diagnostic procedures. Topics include applying problem solving strategies in the patient care setting, applying ethical principles in decision making, and practicing professional responsibilities, which will prepare students for clinical practice. Upon completion, students should be able to demonstrate competence in respiratory therapy concepts and procedures through written and laboratory evaluations.(2017 FA)

RCP-113	RCP Pharmacology	2 (2-0)	Spring
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Prerequisites: None

Corequisites: None

This course covers the drugs used in the treatment of cardiopulmonary diseases. Emphasis is placed on the uses, actions, indications, administration, and hazards of pharmacological agents. Upon completion, students should be able to demonstrate competence through written evaluations.(1997 SU)

COURSE DESCRIPTIONS

RCP-114 C-P Anatomy & Physiology 3 (3-0) Fall**Prerequisites:** None**Corequisites:** None

This course provides a concentrated study of cardiopulmonary anatomy and physiology essential to the practice of respiratory care. Emphasis is placed on cardiovascular and pulmonary physiology, acid/base balance, and blood gas interpretation. Upon completion, students should be able to demonstrate competence in these concepts through written evaluation. C-P A & P(2008 SP)

RCP-115 C-P Pathophysiology 2 (2-0) Summer**Prerequisites:** None**Corequisites:** None

This course introduces the etiology, pathophysiology, clinical signs and symptoms, diagnoses, prognoses, complications, and management of cardiopulmonary diseases. Emphasis is placed on developing, evaluating, and modifying respiratory care plans based on evidence-based medicine protocols and clinical practice guidelines. Upon completion, students should be able to demonstrate competence in cardio-pulmonary disease concepts through written evaluations.(2017 FA)

**RCP-139 RCP Clinical Practice I 9 Fall
(0-0-27)****Prerequisites:** None**Corequisites:** RCP-110^S

This course provides entry-level clinical experience. Emphasis is placed on therapeutic and diagnostic patient care. Upon completion, students should be able to demonstrate clinical competence in required performance evaluations.(1997 SU)

**RCP-149 RCP Clinical Practice II 9 Spring
(0-0-27)****Prerequisites:** RCP-110^S**Corequisites:** RCP-111^S

This course provides entry-level clinical experience. Emphasis is placed on therapeutic and diagnostic patient care. Upon completion, students should be able to demonstrate clinical competence in required performance evaluations.(1997 SU)

RCP-210 Critical Care Concepts 4 (3-3) Summer**Prerequisites:** RCP-111^L**Corequisites:** None

This course provides further refinement of acute patient care and underlying pathophysiology. Topics include a continuation in the application and management of mechanical ventilation, assessment underlying pathophysiology, and introduction of critical care monitoring. Upon completion, students should be able to demonstrate competence in respiratory therapy concepts and procedures through written, laboratory and/or clinical simulation evaluations.(2017 FA)

RCP-211	Adv Monitoring/Procedures	4 (3-3)	Fall
Prerequisites:	RCP-210 ^S		
Corequisites:	None		
This course includes advanced information gathering and decision making for the respiratory care professional using evidence-based respiratory care protocols. Topics include advanced cardiac monitoring, special procedures, respiratory care protocols, and disease management. Upon completion, students should be able to assess, recommend, and independently modify respiratory care protocols through written, laboratory and/or clinical simulation evaluations.(2017 FA)			
RCP-213	Neonatal/Ped's Concepts	2 (2-0)	Fall
Prerequisites:	RCP-111 ^S		
Corequisites:	None		
This course provides comprehensive coverage of the concepts of neonatal and pediatric respiratory care. Emphasis is placed on pathophysiology, patient assessment and special therapeutic needs of neonates and children based on evidence-based medicine protocols and clinical practice guidelines. Upon completion, students should be able to demonstrate competence in the neonatal and pediatric respiratory care concepts through written evaluations.(2017 FA)			
RCP-215	Career Preparation	1 (0-3)	Spring
Prerequisites:	None		
Corequisites:	None		
This course provides an overview of respiratory therapy concepts in preparation for credentialing exam. Emphasis is placed on registry preparation. Upon completion, students should be able to demonstrate a comprehensive knowledge of respiratory therapy and be prepared for successful completion of the credentialing process.(2017 FA)			

REL RELIGION

REL-110	World Religions	3 (3-0)	Fall Spring Summer
Prerequisites:	None		
Corequisites:	None		
This course introduces the world's major religious traditions. Topics include Primal religions, Hinduism, Buddhism, Islam, Judaism, and Christianity. Upon completion, students should be able to identify the origins, history, beliefs, and practices of the religions studied.(1997 SU) This course has been approved to satisfy the following requirement(s):			
<ul style="list-style-type: none"> • Humanities/Fine Arts Gen. Ed. course for A.A., A.A. Teacher Preparation and A.S. • Humanities/Fine Arts Gen. Ed. course for A.A.S. and A.G.E. 			

COURSE DESCRIPTIONS

- Humanities/Fine Arts Gen. Ed. course for A.A., A.A. Teacher Preparation and A.S.
- Humanities/Fine Arts Gen. Ed. course for A.A.S. and A.G.E.

- Humanities/Fine Arts Gen. Ed. course for A.A., A.A. Teacher Preparation and A.S.
- Humanities/Fine Arts Gen. Ed. course for A.A.S. and A.G.E.

- Humanities/Fine Arts Gen. Ed. course for A.A., A.A. Teacher Preparation and A.S.
- Humanities/Fine Arts Gen. Ed. course for A.A.S. and A.G.E.

- Natural Science Gen. Ed. course for A.A.S. and A.G.E.

SEC INFO SYSTEMS SECURITY

SEC-110 **Security Concepts** **3 (2-2)** **Fall
Spring**

Prerequisites: None

Corequisites: None

This course introduces the concepts and issues related to securing information systems and the development of policies to implement information security controls. Topics include the historical view of networking and security, security issues, trends, security resources, and the role of policy, people, and processes in information security. Upon completion, students should be able to identify information security risks, create an information security policy, and identify processes to implement and enforce policy.(2013 SP)

SEC-160 **Security Administration I** **3 (2-2)** **Spring**

Prerequisites: None

Corequisites: None

This course provides an overview of security administration and fundamentals of designing security architectures. Topics include networking technologies, TCP/IP concepts, protocols, network traffic analysis, monitoring, and security best practices. Upon completion, students should be able to identify normal network traffic using network analysis tools and design basic security defenses.(2016 FA)

SEC-210 **Intrusion Detection** **3 (2-2)** **Fall**

Prerequisites: None

Corequisites: None

This course introduces the student to intrusion detection methods in use today. Topics include the types of intrusion detection products, traffic analysis, and planning and placement of intrusion detection solutions. Upon completion, students should be able to plan and implement intrusion detection solution for networks and host-based systems.(2016 FA)

SGD SIMULATION & GAME DEVELOP

SGD-112 **SGD Design I** **3 (2-3)** **Summer**

Prerequisites: None

Corequisites: None

This course introduces the fundamentals of simulation and game design. Topics include industry standards and design elements for simulation and games. Upon completion, students should be able to design simple simulations and/or games. (2022 SP)

SGD-113 **SGD Programming I** **3 (2-3)** **Fall**

Prerequisites: None

Corequisites: None

This course introduces the fundamentals of programming languages and tools employed in simulation and game development. Emphasis is placed on programming concepts used to create simulations and games. Upon completion, students should be able to program simple games and/or simulations.(2022 SP)

COURSE DESCRIPTIONS

SGD-114	SGD 3D Modeling I	3 (2-3)	Summer
Prerequisites:	None		
Corequisites:	None		
This course introduces the tools required to create three-dimensional (3D) models. Emphasis is placed on exploring tools used to create 3D models. Upon completion, students should be able to create and animate 3D models using 3D modeling tools. (2022 SP)			
SGD-162	SGD 3D Animation I	3 (2-3)	Spring
Prerequisites:	SGD-214 ^L		
Corequisites:	None		
This course introduces the fundamental principles of 3D animation used in simulation and game development. Emphasis is placed on a historical survey of 3D animation, aspects of the 3D animation techniques. Upon completion, students should be able to produce 3D character sketches, morph simple objects, create walk and run cycles and develop professional storyboards.(2022 SP)			
SGD-174	SGD Level Design I	3 (2-3)	Summer
Prerequisites:	None		
Corequisites:	None		
This course introduces the tools used to create levels for real-time simulation and games. Topics include level design, architecture theory, modeling for 3D engines, and texturing methods. Upon completion, students should be able to design simple levels using industry-standard tools.(2022 SP)			
SGD-212	SGD Design II	3 (2-3)	Fall
Prerequisites:	SGD-112 ^S		
Corequisites:	None		
This course covers the advanced principles of simulation and game design. Topics include advanced design concepts in simulation and game development. Upon completion, students should be able to design an advanced simulation or game. (2006 SP)			
SGD-214	SGD 3D Modeling II	3 (2-3)	Fall
Prerequisites:	SGD-114 ^S		
Corequisites:	None		
This course introduces the tools used to create and animate advanced 3-dimensional models. Emphasis is placed on identifying and utilizing the tools required to create and animate advanced 3D models. Upon completion, students should be able to create and animate advanced 3D models using 3D modeling tools.(2022 SP)			
SGD-289	SGD Project	3 (2-3)	Spring
Prerequisites:	SGD-212 ^S , SGD-213 ^S , SGD-214 ^S , or SGD-285 ^S		
Corequisites:	None		
This course provides students with the opportunity to create a functional simulation or game with minimal instructor support. Emphasis is placed upon verbal and written communication, skill documentation, professional presentation and user training. Upon completion, students should be able to create and professionally present a fully functional simulation or game.(2009 FA)			

SOC SOCIOLOGY

SOC-210	Introduction to Sociology	3 (3-0)	Fall Spring Summer
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Prerequisites: None**Corequisites:** None

This course introduces the scientific study of human society, culture, and social interactions. Topics include socialization, research methods, diversity and inequality, cooperation and conflict, social change, social institutions, and organizations. Upon completion, students should be able to demonstrate knowledge of sociological concepts as they apply to the interplay among individuals, groups, and societies.(1997 SU) This course has been approved to satisfy the following requirement(s):

- UGETC course for A.A., A.A. Teacher Preparation, A.E., A.F.A., A.S. and A.S. Teacher Preparation
- Social/Behavioral Science Gen. Ed. course for A.A.S. and A.G.E.

SOC-213	Sociology of the Family	3 (3-0)	Fall Spring Summer
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Prerequisites: ENG-002^L or BSP-4002^L**Corequisites:** None

This course covers the institution of the family and other intimate relationships. Emphasis is placed on mate selection, gender roles, sexuality, communication, power and conflict, parenthood, diverse lifestyles, divorce and remarriage, and economic issues. Upon completion, students should be able to analyze the family as a social institution and the social forces which influence its development and change.(1997 SU) This course has been approved to satisfy the following requirement(s):

- Social/Behavioral Science Gen. Ed. course for A.A., A.A. Teacher Preparation and A.S.
- Social/Behavioral Science Gen. Ed. course for A.A.S. and A.G.E.

SOC-220	Social Problems	3 (3-0)	Fall Spring Summer
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Prerequisites: ENG-002^L or BSP-4002^L**Corequisites:** None

This course provides an in-depth study of current social problems. Emphasis is placed on causes, consequences, and possible solutions to problems associated with families, schools, workplaces, communities, and the environment. Upon completion, students should be able to recognize, define, analyze, and propose solutions to these problems.(1997 SU) This course has been approved to satisfy the following requirement(s):

- Social/Behavioral Science Gen. Ed. course for A.A., A.A. Teacher Preparation and A.S.
- Social/Behavioral Science Gen. Ed. course for A.A.S. and A.G.E.

COURSE DESCRIPTIONS

SOC-225 Social Diversity 3 (3-0) AND**Prerequisites:** ENG-002^L or BSP-4002^L**Corequisites:** None

This course provides a comparison of diverse roles, interests, opportunities, contributions, and experiences in social life. Topics include race, ethnicity, gender, sexual orientation, class, and religion. Upon completion, students should be able to analyze how cultural and ethnic differences evolve and how they affect personality development, values, and tolerance.(1997 SU) This course has been approved to satisfy the following requirement(s):

- Social/Behavioral Science Gen. Ed. course for A.A. and A.S.
- Social/Behavioral Science/Other Required Gen. Ed. course for A.A. Teacher Preparation and A.S. Teacher Preparation
- Social/Behavioral Science Gen. Ed. course for A.A.S. and A.G.E.

SOC-230 Race and Ethnic Relations 3 (3-0) AND**Prerequisites:** ENG-002^L or BSP-4002^L**Corequisites:** None

This course includes an examination of the various aspects of race and ethnicity and how these lead to different experiences, opportunities, problems, and contributions. Topics include prejudice, discrimination, perceptions, myths, stereotypes, and intergroup relationships. Upon completion, students should be able to identify and analyze relationships among racial and ethnic groups within the larger society.(1997 SU) This course has been approved to satisfy the following requirement(s):

- Social/Behavioral Science Gen. Ed. course for A.A., A.A. Teacher Preparation and A.S.
- Social/Behavioral Science Gen. Ed. course for A.A.S. and A.G.E.

SOC-234 Sociology of Gender 3 (3-0) AND**Prerequisites:** ENG-002^L or BSP-4002^L**Corequisites:** None

This course examines contemporary roles in society with special emphasis on recent changes. Topics include sex role socialization, myths and stereotypes, gender issues related to family, work, and power. Upon completion, students should be able to analyze modern relationships between men and women.(1997 SU) This course has been approved to satisfy the following requirement(s):

- Premajor and/or Elective course for A.A. and A.S.
- Social/Behavioral Science Gen. Ed. course for A.A.S. and A.G.E.

SOC-240 Social Psychology 3 (3-0) AND**Prerequisites:** ENG-002^L or BSP-4002^L**Corequisites:** None

This course examines the influence of culture and social groups on individual behavior and personality. Emphasis is placed on the process of socialization, communication, conformity, deviance, interpersonal attraction, intimacy, race and ethnicity, small group experiences, and social movements. Upon completion, students should be able to identify and analyze cultural and social forces that influence the individual in a society.(1997 SU) This course has been approved to satisfy the following requirement(s):

- Social/Behavioral Science Gen. Ed. course for A.A., A.A. Teacher Preparation and A.S.
- Social/Behavioral Science Gen. Ed. course for A.A.S. and A.G.E.

SOC-242 Sociology of Deviance 3 (3-0) AND
Prerequisites: ENG-002^L or BSP-4002^L
Corequisites: None

This course provides an overview of deviant behavior and the processes involved in its definition, causation, prevention, control, and treatment. Topics include theories of causation, social control, delinquency, victimization, criminality, the criminal justice system, punishment, rehabilitation, and restitution. Upon completion, students should be able to identify and analyze issues surrounding the nature and development of social responses to deviance.(1997 SU) This course has been approved to satisfy the following requirement(s):

- Premajor and/or Elective course for A.A. and A.S.
- Social/Behavioral Science Gen. Ed. course for A.A.S. and A.G.E.

SPA SPANISH

**SPA-111 Elementary Spanish I 3 (3-0) Fall
Spring
Summer**
Prerequisites: None

Corequisites: None

This course introduces the fundamental elements of the Spanish language within a cultural context. Emphasis is placed on the development of basic listening, speaking, reading, and writing skills. Upon completion, students should be able to comprehend and respond with grammatical accuracy to spoken and written Spanish and demonstrate cultural awareness.(1997 SU) This course has been approved to satisfy the following requirement(s):

- Humanities/Fine Arts Gen. Ed. course for A.A., A.A. Teacher Preparation and A.S.

**SPA-112 Elementary Spanish II 3 (3-0) Fall
Spring
Summer**
Prerequisites: SPA-111^S
Corequisites: None

This course is a continuation of SPA 111 focusing on the fundamental elements of the Spanish language within a cultural context. Emphasis is placed on the progressive development of listening, speaking, reading, and writing skills. Upon completion, students should be able to comprehend and respond with increasing proficiency to spoken and written Spanish and demonstrate further cultural awareness.(1997 SU) This course has been approved to satisfy the following requirement(s):

- Humanities/Fine Arts Gen. Ed. course for A.A., A.A. Teacher Preparation and A.S.

SPA-120 Spanish for the Workplace 3 (3-0) AND
Prerequisites: None

Corequisites: None

This course offers applied Spanish for the workplace to facilitate basic communication with people whose native language is Spanish. Emphasis is placed on oral communication and career-specific vocabulary that targets health, business, and/or public service professions. Upon completion, students should be able to communicate at a functional level with native speakers and demonstrate cultural sensitivity.(1997 SU)

COURSE DESCRIPTIONS

SPA-161 Cultural Immersion 3 (2-3) AND**Prerequisites:** SPA-111^S**Corequisites:** None

This course explores Hispanic culture through intensive study on campus and field experience in a host country or comparable area within the United States. Topics include an overview of linguistic, historical, geographical, sociopolitical, economic, and/or artistic concerns of the area visited. Upon completion, students should be able to exhibit first-hand knowledge of issues pertinent to the host area and demonstrate understanding of cultural differences.(2014 SU) This course has been approved to satisfy the following requirement(s):

- Premajor and/or Elective course for A.A. and A.S.

**SPA-211 Intermediate Spanish I 3 (3-0) Fall
Spring
Summer****Prerequisites:** SPA-112^S**Corequisites:** None

This course provides a review and expansion of the essential skills of the Spanish language. Emphasis is placed on the study of authentic and representative literary and cultural texts. Upon completion, students should be able to communicate effectively, accurately, and creatively about the past, present, and future.(1997 SU) This course has been approved to satisfy the following requirement(s):

- Humanities/Fine Arts Gen. Ed. course for A.A., A.A. Teacher Preparation and A.S.

SPA-212 Intermediate Spanish II 3 (3-0) AND**Prerequisites:** SPA-211^S**Corequisites:** None

This course provides a continuation of SPA 211. Emphasis is placed on the continuing study of authentic and representative literary and cultural texts. Upon completion, students should be able to communicate spontaneously and accurately with increasing complexity and sophistication.(1997 SU) This course has been approved to satisfy the following requirement(s):

- Humanities/Fine Arts Gen. Ed. course for A.A., A.A. Teacher Preparation and A.S.

SRV SURVEYING**SRV-110 Surveying I 4 (2-6) Summer****Prerequisites:** ARC-111^L or EGR-115^L**Corequisites:** MAT-003^S, BSP-4003^S, MAT-121^S, or MAT-171^S

This course introduces the theory and practice of plane surveying. Topics include the precise measurement of distances, angles, and elevations bearing, azimuth and traverse computations topography and mapping. Upon completion, students should be able to use/care for surveying equipment, collect field survey data, perform traverse computations and create a contour map.(2020 FA)

SRV-111	Surveying II	4 (2-6)	Fall
Prerequisites:	SRV-110 ^S		
Corequisites:	None		
This course introduces route surveying and roadway planning and layout. Topics include simple, compound, reverse, spiral, and vertical curves geometric design and layout planning of cross-section and grade line drainage earthwork calculations and mass diagrams. Upon completion, students should be able to calculate and lay out highway curves prepare roadway plans, profiles, and sections and perform slope staking.(1997 SU)			
SRV-210	Surveying III	4 (2-6)	Spring
Prerequisites:	SRV-110 ^S		
Corequisites:	None		
This course introduces boundary surveying, land partitioning, and calculations of areas. Topics include advanced traverses and adjustments, preparation of survey documents, and other related topics. Upon completion, students should be able to research, survey, and map a boundary.(1997 SU)			
SRV-220	Surveying Law	3 (2-2)	Fall
Prerequisites:	SRV-110 ^S		
Corequisites:	None		
This course introduces the law as related to the practice of surveying. Topics include surveyors' responsibilities, deed descriptions, title searches, eminent domain, easements, weight of evidence, riparian rights, and other related topics. Upon completion, students should be able to identify and apply the basic legal aspects associated with the practice of land surveying.(1997 SU)			
SRV-240	Topo/Site Surveying	4 (2-6)	Spring
Prerequisites:	SRV-110 ^S		
Corequisites:	None		
This course covers topographic, site, and construction surveying. Topics include topographic mapping, earthwork, site planning, construction staking, and other related topics. Upon completion, students should be able to prepare topographic maps and site plans and locate and stake out construction projects.(1997 SU)			

SST SUSTAINABILITY TECH

SST-140	Green Bldg & Design Concepts	3 (3-0)	Fall
Prerequisites:	None		
Corequisites:	None		
This course is designed to introduce the student to sustainable building design and construction principles and practices. Topics include sustainable building rating systems and certifications, energy efficiency, indoor environmental quality, sustainable building materials and water use. Upon completion, students should be able to identify the principles and practices of sustainable building design and construction.(2013 FA)			

SUR SURGERY

SUR-110 Intro to Surg Tech**3 (3-0) Fall****Prerequisites:** None**Corequisites:** SUR-111^S

This course provides a comprehensive study of peri-operative care, patient care concepts, and professional practice concepts within the profession of surgical technology. Topics include: introductory concepts, organizational structure and relationships, legal, ethical and moral issues, medical terminology, pharmacology, anesthesia, wound healing management concepts, and the technological sciences. Upon completion, students should be able to apply theoretical knowledge of the course topics to the practice of surgical technology.(2012 SP)

SUR-111 Periop Patient Care**7 (5-6) Fall****Prerequisites:** None**Corequisites:** SUR-110^S

This course provides the surgical technology student the theoretical knowledge required to function in the pre-operative, intra-operative, and post-operative role. Topics include asepsis, disinfection and sterilization, physical environment, instrumentation, equipment, peri-operative patient care, and peri-operative case management. Upon completion, students should be able to apply the principles and practice of the peri-operative team member to the operative environment. (2012 SP)

SUR-122 Surgical Procedures I**6 (5-3) Spring****Prerequisites:** SUR-110^S, SUR-111^S**Corequisites:** SUR-123^S

This course provides an introduction to selected basic and intermediate surgical specialties that students are exposed to the first clinical rotation. Emphasis is placed on related surgical anatomy, pathology, and procedures that enhance theoretical knowledge of patient care, instrumentation, supplies, and equipment. Upon completion, students should be able to correlate, integrate, and apply theoretical knowledge of the course topics to the clinical operative environment. (2016 SP)

SUR-123 Sur Clinical Practice I**7 Spring
(0-0-21)****Prerequisites:** SUR-110^S, SUR-111^S**Corequisites:** SUR-122^S

This course provides clinical experience with a variety of perioperative assignments to build upon skills learned in SUR 111. Emphasis is placed on the scrub and circulating roles of the surgical technologist including aseptic technique and basic case preparation for selected surgical procedures. Upon completion, students should be able to prepare, assist with, and dismantle basic surgical cases in both the scrub and circulating roles.(1997 SU)

SUR-134 Surgical Procedures II 5 (5-0) Summer
Prerequisites: SUR-123^S**Corequisites:** None

This course provides a comprehensive study of intermediate and advanced surgical specialties that students are exposed to in the second clinical rotation. Emphasis is placed on related surgical anatomy, pathology, and procedures that enhance theoretical knowledge of patient care, instrumentation, supplies, and equipment. Upon completion, students should be able to correlate, integrate, and apply theoretical knowledge of the course topics to the clinical operative environment.(2016 SP)

SUR-135 SUR Clinical Practice II 4 Summer
(0-0-12)
Prerequisites: SUR-123^S**Corequisites:** SUR-134^S

This course provides clinical experience with a variety of perioperative assignments to build skills required for complex perioperative patient care. Emphasis is placed on greater technical skills, critical thinking, speed, efficiency, and autonomy in the operative setting. Upon completion, students should be able to function in the role of an entry-level surgical technologist.(2010 FA)

SUR-137 Professional Success Prep 1 (1-0) Summer
Prerequisites: None**Corequisites:** None

This course provides employability skills and an overview of theoretical knowledge in preparation for certification. Topics include test-taking strategies, resume preparation, interviewing strategies, communication skills, and teamwork concepts. Upon completion, students should be able to prepare a resume, demonstrate appropriate interview techniques, and identify strengths and weaknesses in preparation for certification.(2016 SU)

SUR-210 Adv SUR Clinical Practice 2 (0-0-6) Spring
Prerequisites: None**Corequisites:** None

This course is designed to provide individualized experience in advanced practice, education, circulating, and managerial skills. Emphasis is placed on developing and demonstrating proficiency in skills necessary for advanced practice. Upon completion, students should be able to assume leadership roles in a chosen specialty area.(2010 FA)

SUR-211 Adv Theoretical Concepts 2 (2-0) Fall
Prerequisites: None**Corequisites:** None

This course covers theoretical knowledge required for extension of the surgical technologist role. Emphasis is placed on advanced practice in complex surgical specialties, educational methodologies, and managerial skills. Upon completion, students should be able to assume leadership roles in a chosen specialty area. (2010 FA)

TRF TURFGRASS MANAGEMENT

TRF-110 **Intro Turfgrass Cult & ID** **4 (3-2) Spring**

Prerequisites: LSG-111^L; MAT-110^L, MAT-121^L, MAT-143^L, MAT-152^L, or MAT-171^L

Corequisites: None

This course covers the principles of reproduction, growth development, species characteristics, establishment and maintenance of golf courses and sports fields, and lawns. Topics include principles of reproduction, growth development, species characteristics, establishment and maintenance of golf courses and sports fields, and lawn applications. Upon completion, students should be able to identify turfgrass species and develop an establishment and maintenance plan for high quality turf areas in accordance with sustainable practices.(2013 FA)

TRF-152 **Landscape Maintenance** **3 (2-2) Summer**

Prerequisites: HOR-160^L, LSG-111^L, LSG-123^L, TRF-110^L; MAT-110^L, MAT-121^L, MAT-143^L, MAT-152^L, or MAT-171^L

Corequisites: None

This course introduces the tasks of landscape maintenance. Emphasis is placed on lawns, shrubs, trees, flowers, and ground covers. Upon completion, students should be able to maintain a landscape area on a year-round schedule.(1997 SU)

TRF-210 **Turfgrass Eqmt Mgmt** **3 (1-4) Fall**

Prerequisites: HOR-160^L, LSG-111^L, LSG-123^L, TRF-110^L; MAT-110^L, MAT-121^L, MAT-143^L, MAT-152^L, or MAT-171^L

Corequisites: None

This course covers the operation and maintenance of specialized turfgrass management equipment. Topics include small engine use and repair operation, maintenance, and repair of turfgrass management equipment organization of shop areas and safety considerations. Upon completion, students should be able to operate and maintain turfgrass management equipment.(1997 SU)

TRF-220 **Turfgrass Calculations** **2 (2-0) Fall**

Prerequisites: HOR-160^L, LSG-111^L, LSG-123^L, TRF-110^L; MAT-110^L, MAT-121^L, MAT-143^L, MAT-152^L, or MAT-171^L

Corequisites: None

This course introduces the specific math concepts and calculations necessary in the turfgrass industry. Emphasis is placed on calibration of equipment used in the application of fertilizers and pesticides and calculation of solid materials used in construction. Upon completion, students should be able to correctly perform basic calculations and calibrations and estimate materials needed in specific professional turfgrass management situations.(1997 SU)

TRF-230 **Turfgrass Mgmt Apps** **2 (1-2) Fall**

Prerequisites: HOR-166^L; MAT-110^L, MAT-121^L, MAT-143^L, MAT-152^L, or MAT-171^L

Corequisites: None

This course introduces specific sports field design, installation, and maintenance. Topics include natural grass croquet courts and baseball, soccer, and football fields. Upon completion, students should be able to perform specific tasks in layout, field marking, and preparing for tournament play.(1997 SU) Major emphasis will be placed on golf courses.

TRF-260 Adv Turfgrass Mgmt 4 (3-2) Spring
Prerequisites: ENG-112^L or ENG-114^L; TRF-110^L
Corequisites: None

This course covers the principles and practices involved in turfgrass management. Topics include choosing the best management practice in mowing, pest control, fertilization, irrigation, traffic control, air control, budgeting, and materials procurement. Upon completion, students should be able to demonstrate knowledge of the principles covered and select and apply the best practices in turfgrass management.(1997 SU)

TRN TRANSPORTATION TECHNOLOGY

**TRN-110 Intro to Transport Tech 2 (1-2) Fall
Spring**
Prerequisites: None

Corequisites: None

This course covers workplace safety, hazardous materials, environmental regulations, hand tools, service information, basic concepts, vehicle systems, and common transportation industry terminology. Topics include familiarization with major vehicle systems, proper use of various hand and power tools, material safety data sheets, and personal protective equipment. Upon completion, students should be able to demonstrate appropriate safety procedures, identify and use basic shop tools, and describe government regulations regarding transportation repair facilities.(2013 FA)

TRN-112 Powertrain Maint/Light Repair 4 (2-6) Fall
Prerequisites: None

Corequisites: None

This course covers maintenance and light repair of transportation engines, automatic and manual transmission/transaxles, engine performance systems, and HVAC systems. Topics include general servicing and inspection procedures of engines, engine lubrication and cooling systems, automatic and manual transmission/transaxles, HVAC components, and fuel, air induction, and exhaust systems. Upon completion, students should be able to perform maintenance and light repair of transportation engines, automatic and manual transmission/transaxles, engine performance systems, and HVAC systems.(2015 SU)

**TRN-120 Basic Transp Electricity 5 (4-3) Fall
Spring**
Prerequisites: None

Corequisites: None

This course covers basic electrical theory, wiring diagrams, test equipment, and diagnosis, repair and replacement of batteries, starters, and alternators. Topics include Ohm's Law, circuit construction, wiring diagrams, circuit testing, and basic troubleshooting. Upon completion, students should be able to properly use wiring diagrams, diagnose, test, and repair basic wiring, battery, starting, charging, and electrical concerns.(2013 FA)

COURSE DESCRIPTIONS

TRN-140	Transp Climate Control	2 (1-2)	Spring Summer
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Prerequisites: None**Corequisites:** None

This course covers the theory of refrigeration and heating, electrical/electronic/pneumatic controls, and diagnosis and repair of climate control systems. Topics include diagnosis and repair of climate control components and systems, recovery/recycling of refrigerants, and safety and environmental regulations. Upon completion, students should be able to diagnose and repair vehicle climate control systems.(2013 FA)

TRN-140A	Transp Climate Cont Lab	2 (1-2)	Spring Summer
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Prerequisites: None**Corequisites:** TRN-140^S

This course provides experiences for enhancing student skills in the diagnosis and repair of transportation climate control systems. Emphasis is placed on reclaiming, recovery, recharging, leak detection, climate control components, diagnosis, air conditioning equipment, tools and safety. Upon completion, students should be able to describe the operation, diagnose, and safely service climate control systems using appropriate tools, equipment, and service information.(2013 FA)

TRN-180	Basic Welding for Transp	3 (1-4)	AND
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Prerequisites: None**Corequisites:** None

This course covers the terms and procedures for welding various metals used in the transportation industry with an emphasis on personal safety and environmental health. Topics include safety and precautionary measures, setup/operation of MIG equipment, metal identification methods, types of welds/joints, techniques, inspection methods, cutting processes and other related issues. Upon completion, students should be able to demonstrate a basic knowledge of welding operations and safety procedures according to industry standard(2013 FA)

UAS UNMANNED AIRCRAFT SYSTEMS

UAS-110	Intro to UAS Operations	3 (3-0)	AND
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Prerequisites: None**Corequisites:** None

This course provides an introduction to the history, various technologies, and capabilities of unmanned aircraft systems (UAS). Topics include UAS history, operational design and capabilities, popular applications, and the science of flight. Upon completion, students should be able to identify and explain common aspects of unmanned aircraft systems including their historical development, commonly utilized technologies, applications, and unit flight capabilities.(2015 FA)

UAS-115 Small UAS Certification 2 (2-0) AND
Prerequisites: None**Corequisites:** None

This course prepares learners for small Unmanned Aircraft Systems (UAS) flight certification to promote compliance with the requirements of Title 14 of the Code of Federal Regulations (14 CFR). Topics include FAA Title 14 CFR Part 107 study guide and NCDOT UAS flight standards to provide guidance in the areas of remote pilot certification, aircraft registration and marking, aircraft airworthiness, basic piloting skills, and the operation of small UAS. Upon completion, students should be able to meet requirements for small UAS certification through the NCDOT and perform basic small UAS piloting in accordance with FAA Title 14 CFR Part 107 regulations.(2018 SU)

WBL WORK-BASED LEARNING

WBL-110 World of Work 1 (1-0) Fall**Prerequisites:** None**Corequisites:** None

This course covers basic knowledge necessary for gaining and maintaining employment. Topics include job search skills, work ethic, meeting employer expectations, workplace safety, and human relations. Upon completion, students should be able to successfully make the transition from school to work.(2014 FA)

**WBL-111A Work-Based Learning I 1 (0-10) Fall
Spring
Summer****Prerequisites:** None**Corequisites:** None

This course provides a work-based learning experience with a college-approved employer in an area related to the student's program of study. Emphasis is placed on integrating classroom learning with related work experience. Upon completion, students should be able to evaluate career selection, demonstrate employability skills, and satisfactorily perform work-related competencies.(2014 FA)

WBL-111B Work-Based Learning I 1 (0-10) Fall**Prerequisites:** None**Corequisites:** None

This course provides a work-based learning experience with a college-approved employer in an area related to the student's program of study. Emphasis is placed on integrating classroom learning with related work experience. Upon completion, students should be able to evaluate career selection, demonstrate employability skills, and satisfactorily perform work-related competencies.(2014 FA)

WBL-111D Work-Based Learning I 1 (0-10) Spring**Prerequisites:** LSG-111 and LSG-121; MAT-110, MAT-121, MAT-143, MAT-152 or MAT-171**Corequisites:** HOR-134, LSG-122, TRF-110

This course provides a work-based learning experience with a college-approved employer in an area related to the student's program of study. Emphasis is placed on integrating classroom learning with related work experience. Upon completion, students should be able to evaluate career selection, demonstrate employability skills, and satisfactorily perform work-related competencies. Students will be assigned projects in college greenhouses and on campus property. (2014 FA)

COURSE DESCRIPTIONS

WBL-111E	Work-Based Learning I	1 (0-10) AND
Prerequisites:	None	
Corequisites:	None	
This course provides a work-based learning experience with a college-approved employer in an area related to the student's program of study. Emphasis is placed on integrating classroom learning with related work experience. Upon completion, students should be able to evaluate career selection, demonstrate employability skills, and satisfactorily perform work-related competencies.(2014 FA)		
WBL-111F	Work-Based Learning I	1 (0-10) Fall
Prerequisites:	None	
Corequisites:	None	
This course provides a work-based learning experience with a college-approved employer in an area related to the student's program of study. Emphasis is placed on integrating classroom learning with related work experience. Upon completion, students should be able to evaluate career selection, demonstrate employability skills, and satisfactorily perform work-related competencies.(2014 FA)		
WBL-111G	Work-Based Learning I	1 (0-10) AND
Prerequisites:	None	
Corequisites:	None	
This course provides a work-based learning experience with a college-approved employer in an area related to the student's program of study. Emphasis is placed on integrating classroom learning with related work experience. Upon completion, students should be able to evaluate career selection, demonstrate employability skills, and satisfactorily perform work-related competencies.(2014 FA)		
WBL-111H	Work-Based Learning I	1 (0-10) Fall
Prerequisites:	None	
Corequisites:	None	
This course provides a work-based learning experience with a college-approved employer in an area related to the student's program of study. Emphasis is placed on integrating classroom learning with related work experience. Upon completion, students should be able to evaluate career selection, demonstrate employability skills, and satisfactorily perform work-related competencies.(2014 FA)		
WBL-111I	Work-Based Learning I	1 (0-10) AND
Prerequisites:	None	
Corequisites:	None	
This course provides a work-based learning experience with a college-approved employer in an area related to the student's program of study. Emphasis is placed on integrating classroom learning with related work experience. Upon completion, students should be able to evaluate career selection, demonstrate employability skills, and satisfactorily perform work-related competencies.(2014 FA)		
WBL-111J	Work-Based Learning I	1 (0-10) Summer
Prerequisites:	ENG-002 or BSP-4002; CJC-241, CJC-132, CJC-141, or CJC-121	
Corequisites:	WBL-115	
This course provides a work-based learning experience with a college-approved employer in an area related to the student's program of study. Emphasis is placed on integrating classroom learning with related work experience. Upon completion, students should be able to evaluate career selection, demonstrate employability skills, and satisfactorily perform work-related competencies.(2014 FA)		

WBL-111K	Work-Based Learning I	1 (0-10)	Fall
Prerequisites:	None		
Corequisites:	None		
This course provides a work-based learning experience with a college-approved employer in an area related to the student's program of study. Emphasis is placed on integrating classroom learning with related work experience. Upon completion, students should be able to evaluate career selection, demonstrate employability skills, and satisfactorily perform work-related competencies.(2014 FA)			
WBL-111M	Work-Based Learning I	1 (0-10)	AND
Prerequisites:	None		
Corequisites:	None		
This course provides a work-based learning experience with a college-approved employer in an area related to the student's program of study. Emphasis is placed on integrating classroom learning with related work experience. Upon completion, students should be able to evaluate career selection, demonstrate employability skills, and satisfactorily perform work-related competencies.(2014 FA)			
WBL-111N	Work-Based Learning I	1 (0-10)	AND
Prerequisites:	None		
Corequisites:	None		
This course provides a work-based learning experience with a college-approved employer in an area related to the student's program of study. Emphasis is placed on integrating classroom learning with related work experience. Upon completion, students should be able to evaluate career selection, demonstrate employability skills, and satisfactorily perform work-related competencies.(2014 FA)			
WBL-111P	Work-Based Learning I	1 (0-10)	Fall Summer
Prerequisites:	None		
Corequisites:	None		
This course provides a work-based learning experience with a college-approved employer in an area related to the student's program of study. Emphasis is placed on integrating classroom learning with related work experience. Upon completion, students should be able to evaluate career selection, demonstrate employability skills, and satisfactorily perform work-related competencies.(2014 FA)			
WBL-111R	Work-Based Learning I	1 (0-10)	AND
Prerequisites:	None		
Corequisites:	None		
This course provides a work-based learning experience with a college-approved employer in an area related to the student's program of study. Emphasis is placed on integrating classroom learning with related work experience. Upon completion, students should be able to evaluate career selection, demonstrate employability skills, and satisfactorily perform work-related competencies.(2014 FA)			

WBL-111T	Work-Based Learning I	1 (0-10)	Spring
Prerequisites:	ENG-111 ^L , LSG-121 ^L		
Corequisites:	HOR-166 ^L		
This course provides a work-based learning experience with a college-approved employer in an area related to the student's program of study. Emphasis is placed on integrating classroom learning with related work experience. Upon completion, students should be able to evaluate career selection, demonstrate employability skills, and satisfactorily perform work-related competencies.(2014 FA)			
WBL-111V	Work-Based Learning I	1 (0-10)	AND
Prerequisites:	None		
Corequisites:	None		
This course provides a work-based learning experience with a college-approved employer in an area related to the student's program of study. Emphasis is placed on integrating classroom learning with related work experience. Upon completion, students should be able to evaluate career selection, demonstrate employability skills, and satisfactorily perform work-related competencies.(2014 FA)			
WBL-112A	Work-Based Learning I	2 (0-20)	Spring
Prerequisites:	None		
Corequisites:	None		
This course provides a work-based learning experience with a college-approved employer in an area related to the student's program of study. Emphasis is placed on integrating classroom learning with related work experience. Upon completion, students should be able to evaluate career selection, demonstrate employability skills, and satisfactorily perform work-related competencies.(2014 FA)			
WBL-112E	Work-Based Learning I	2 (0-20)	AND
Prerequisites:	None		
Corequisites:	None		
This course provides a work-based learning experience with a college-approved employer in an area related to the student's program of study. Emphasis is placed on integrating classroom learning with related work experience. Upon completion, students should be able to evaluate career selection, demonstrate employability skills, and satisfactorily perform work-related competencies.(2014 FA)			
WBL-112G	Work-Based Learning I	2 (0-20)	AND
Prerequisites:	None		
Corequisites:	None		
This course provides a work-based learning experience with a college-approved employer in an area related to the student's program of study. Emphasis is placed on integrating classroom learning with related work experience. Upon completion, students should be able to evaluate career selection, demonstrate employability skills, and satisfactorily perform work-related competencies.(2014 FA)			
WBL-112I	Work-Based Learning I	2 (0-20)	AND
Prerequisites:	None		
Corequisites:	None		
This course provides a work-based learning experience with a college-approved employer in an area related to the student's program of study. Emphasis is placed on integrating classroom learning with related work experience. Upon completion, students should be able to evaluate career selection, demonstrate employability skills, and satisfactorily perform work-related competencies.(2014 FA)			

WBL-112N Work-Based Learning I 2 (0-20) AND**Prerequisites:** None**Corequisites:** None

This course provides a work-based learning experience with a college-approved employer in an area related to the student's program of study. Emphasis is placed on integrating classroom learning with related work experience. Upon completion, students should be able to evaluate career selection, demonstrate employability skills, and satisfactorily perform work-related competencies.(2014 FA)

WBL-112R Work-Based Learning I 2 (0-20) AND**Prerequisites:** None**Corequisites:** None

This course provides a work-based learning experience with a college-approved employer in an area related to the student's program of study. Emphasis is placed on integrating classroom learning with related work experience. Upon completion, students should be able to evaluate career selection, demonstrate employability skills, and satisfactorily perform work-related competencies.(2014 FA)

WBL-112S Work-Based Learning I 2 (0-20) AND**Prerequisites:** None**Corequisites:** None

This course provides a work-based learning experience with a college-approved employer in an area related to the student's program of study. Emphasis is placed on integrating classroom learning with related work experience. Upon completion, students should be able to evaluate career selection, demonstrate employability skills, and satisfactorily perform work-related competencies.(2014 FA)

WBL-112V Work-Based Learning I 2 (0-20) AND**Prerequisites:** None**Corequisites:** None

This course provides a work-based learning experience with a college-approved employer in an area related to the student's program of study. Emphasis is placed on integrating classroom learning with related work experience. Upon completion, students should be able to evaluate career selection, demonstrate employability skills, and satisfactorily perform work-related competencies. (2014 FA)

WBL-113E Work-Based Learning I 3 (0-30) AND**Prerequisites:** None**Corequisites:** None

This course provides a work-based learning experience with a college-approved employer in an area related to the student's program of study. Emphasis is placed on integrating classroom learning with related work experience. Upon completion, students should be able to evaluate career selection, demonstrate employability skills, and satisfactorily perform work-related competencies.(2014 FA)

WBL-113G Work-Based Learning I 3 (0-30) AND**Prerequisites:** None**Corequisites:** None

This course provides a work-based learning experience with a college-approved employer in an area related to the student's program of study. Emphasis is placed on integrating classroom learning with related work experience. Upon completion, students should be able to evaluate career selection, demonstrate employability skills, and satisfactorily perform work-related competencies.(2014 FA)

WBL-113I Work-Based Learning I 3 (0-30) AND**Prerequisites:** None**Corequisites:** None

This course provides a work-based learning experience with a college-approved employer in an area related to the student's program of study. Emphasis is placed on integrating classroom learning with related work experience. Upon completion, students should be able to evaluate career selection, demonstrate employability skills, and satisfactorily perform work-related competencies.(2014 FA)

WBL-113N Work-Based Learning I 3 (0-30) AND**Prerequisites:** None**Corequisites:** None

This course provides a work-based learning experience with a college-approved employer in an area related to the student's program of study. Emphasis is placed on integrating classroom learning with related work experience. Upon completion, students should be able to evaluate career selection, demonstrate employability skills, and satisfactorily perform work-related competencies.(2014 FA)

WBL-113R Work-Based Learning I 3 (0-30) AND**Prerequisites:** None**Corequisites:** None

This course provides a work-based learning experience with a college-approved employer in an area related to the student's program of study. Emphasis is placed on integrating classroom learning with related work experience. Upon completion, students should be able to evaluate career selection, demonstrate employability skills, and satisfactorily perform work-related competencies.(2014 FA)

WBL-113V Work-Based Learning I 3 (0-30) AND**Prerequisites:** None**Corequisites:** None

This course provides a work-based learning experience with a college-approved employer in an area related to the student's program of study. Emphasis is placed on integrating classroom learning with related work experience. Upon completion, students should be able to evaluate career selection, demonstrate employability skills, and satisfactorily perform work-related competencies. (2014 FA)

WBL-115H Work-Based Learning Seminar I 1 (1-0) Fall**Prerequisites:** None**Corequisites:** WBL-111H

This course will provide the student with an opportunity to evaluate practical experiences in the criminal justice field. Students will discuss with their faculty their co-op work in the criminal justice setting.(2014 FA)

WBL-115I Work-Based Learning Seminar I 1 (1-0) Summer**Prerequisites:** None**Corequisites:** WBL-111I

This course provides an opportunity to report work experience with a college-approved employer in an area related to the student's program of study. Emphasis is placed on integrating classroom learning with related work experience. Upon completion, students should be able to evaluate career selection, employability skills and work-related competencies. (2014 FA)

WBL-115J Work-Based Learning Seminar I 1 (1-0) Summer**Prerequisites:** ENG-002 or BSP-4002; CJC-241, CJC-132, CJC 241, or CJC-121

Corequisites: WBL-111J

This course provides an opportunity to report work experience with a college-approved employer in an area related to the student's program of study. Emphasis is placed on integrating classroom learning with related work experience. Upon completion, students should be able to evaluate career selection, employability skills and work-related competencies. (2014 FA)

WBL-121A Work-Based Learning II 1 (0-10) Spring**Prerequisites:** None**Corequisites:** None

This course provides a work-based learning experience with a college-approved employer in an area related to the student's program of study. Emphasis is placed on integrating classroom learning with related work experience. Upon completion, students should be able to evaluate career selection, demonstrate employability skills, and satisfactorily perform work-related competencies.(2014 FA)

WBL-121D Work-Based Learning II 1 (0-10) Fall**Prerequisites:** WBL-111D**Corequisites:** None

This course provides a work-based learning experience with a college-approved employer in an area related to the student's program of study. Emphasis is placed on integrating classroom learning with related work experience. Upon completion, students should be able to evaluate career selection, demonstrate employability skills, and satisfactorily perform work-related competencies. Students will be assigned projects in college greenhouses and on campus property. (2014 FA)

WBL-121E Work-Based Learning II 1 (0-10) AND**Prerequisites:** None**Corequisites:** None

This course provides a work-based learning experience with a college-approved employer in an area related to the student's program of study. Emphasis is placed on integrating classroom learning with related work experience. Upon completion, students should be able to evaluate career selection, demonstrate employability skills, and satisfactorily perform work-related competencies.(2014 FA)

WBL-121F Work-Based Learning II 1 (0-10) Spring**Prerequisites:** None**Corequisites:** None

This course provides a work-based learning experience with a college-approved employer in an area related to the student's program of study. Emphasis is placed on integrating classroom learning with related work experience. Upon completion, students should be able to evaluate career selection, demonstrate employability skills, and satisfactorily perform work-related competencies.(2014 FA)

WBL-121G Work-Based Learning II 1 (0-10) AND**Prerequisites:** None**Corequisites:** None

This course provides a work-based learning experience with a college-approved employer in an area related to the student's program of study. Emphasis is placed on integrating classroom learning with related work experience. Upon completion, students should be able to evaluate career selection, demonstrate employability skills, and satisfactorily perform work-related competencies.(2014 FA)

COURSE DESCRIPTIONS

WBL-121H	Work-Based Learning II	1 (0-10)	Spring
Prerequisites:	None		
Corequisites:	None		
This course provides a work-based learning experience with a college-approved employer in an area related to the student's program of study. Emphasis is placed on integrating classroom learning with related work experience. Upon completion, students should be able to evaluate career selection, demonstrate employability skills, and satisfactorily perform work-related competencies.(2014 FA)			
WBL-121I	Work-Based Learning II	1 (0-10)	AND
Prerequisites:	None		
Corequisites:	None		
This course provides a work-based learning experience with a college-approved employer in an area related to the student's program of study. Emphasis is placed on integrating classroom learning with related work experience. Upon completion, students should be able to evaluate career selection, demonstrate employability skills, and satisfactorily perform work-related competencies.(2014 FA)			
WBL-121K	Work-Based Learning II	1 (0-10)	Spring
Prerequisites:	None		
Corequisites:	None		
This course provides a work-based learning experience with a college-approved employer in an area related to the student's program of study. Emphasis is placed on integrating classroom learning with related work experience. Upon completion, students should be able to evaluate career selection, demonstrate employability skills, and satisfactorily perform work-related competencies.(2014 FA)			
WBL-121N	Work-Based Learning II	1 (0-10)	AND
Prerequisites:	None		
Corequisites:	None		
This course provides a work-based learning experience with a college-approved employer in an area related to the student's program of study. Emphasis is placed on integrating classroom learning with related work experience. Upon completion, students should be able to evaluate career selection, demonstrate employability skills, and satisfactorily perform work-related competencies.(2014 FA)			
WBL-121R	Work-Based Learning II	1 (0-10)	AND
Prerequisites:	None		
Corequisites:	None		
This course provides a work-based learning experience with a college-approved employer in an area related to the student's program of study. Emphasis is placed on integrating classroom learning with related work experience. Upon completion, students should be able to evaluate career selection, demonstrate employability skills, and satisfactorily perform work-related competencies.(2014 FA)			
WBL-121T	Work-Based Learning II	1 (0-10)	Summer
Prerequisites:	WBL-111 ^L , ENG-114 ^L		
Corequisites:	None		
This course provides a work-based learning experience with a college-approved employer in an area related to the student's program of study. Emphasis is placed on integrating classroom learning with related work experience. Upon completion, students should be able to evaluate career selection, demonstrate employability skills, and satisfactorily perform work-related competencies.(2014 FA)			

This course provides a work-based learning experience with a college-approved employer in an area related to the student's program of study. Emphasis is placed on integrating classroom learning with related work experience. Upon completion, students should be able to evaluate career selection, demonstrate employability skills, and satisfactorily perform work-related competencies.(2014 FA)

This course provides a work-based learning experience with a college-approved employer in an area related to the student's program of study. Emphasis is placed on integrating classroom learning with related work experience. Upon completion, students should be able to evaluate career selection, demonstrate employability skills, and satisfactorily perform work-related competencies.(2014 FA)

This course provides a work-based learning experience with a college-approved employer in an area related to the student's program of study. Emphasis is placed on integrating classroom learning with related work experience. Upon completion, students should be able to evaluate career selection, demonstrate employability skills, and satisfactorily perform work-related competencies.(2014 FA)

This course provides a work-based learning experience with a college-approved employer in an area related to the student's program of study. Emphasis is placed on integrating classroom learning with related work experience. Upon completion, students should be able to evaluate career selection, demonstrate employability skills, and satisfactorily perform work-related competencies.(2014 FA)

This course provides a work-based learning experience with a college-approved employer in an area related to the student's program of study. Emphasis is placed on integrating classroom learning with related work experience. Upon completion, students should be able to evaluate career selection, demonstrate employability skills, and satisfactorily perform work-related competencies.(2014 FA)

This course provides a work-based learning experience with a college-approved employer in an area related to the student's program of study. Emphasis is placed on integrating classroom learning with related work experience. Upon completion, students should be able to evaluate career selection, demonstrate employability skills, and satisfactorily perform work-related competencies. (2014 FA)

COURSE DESCRIPTIONS

WBL-123V	Work-Based Learning II	3 (0-30) AND
Prerequisites:	None	
Corequisites:	None	
This course provides a work-based learning experience with a college-approved employer in an area related to the student's program of study. Emphasis is placed on integrating classroom learning with related work experience. Upon completion, students should be able to evaluate career selection, demonstrate employability skills, and satisfactorily perform work-related competencies.(2014 FA)		
WBL-131D	Work-Based Learning III	1 (0-10) Spring
Prerequisites:	WBL-121D	
Corequisites:	None	
This course provides a work-based learning experience with a college-approved employer in an area related to the student's program of study. Emphasis is placed on integrating classroom learning with related work experience. Upon completion, students should be able to evaluate career selection, demonstrate employability skills, and satisfactorily perform work-related competencies.(2014 FA)		
WBL-131K	Work-Based Learning III	1 (0-10) Summer
Prerequisites:	None	
Corequisites:	None	
This course provides a work-based learning experience with a college-approved employer in an area related to the student's program of study. Emphasis is placed on integrating classroom learning with related work experience. Upon completion, students should be able to evaluate career selection, demonstrate employability skills, and satisfactorily perform work-related competencies.(2014 FA)		
WBL-131P	Work-Based Learning III	1 (0-10) AND
Prerequisites:	None	
Corequisites:	None	
This course provides a work-based learning experience with a college-approved employer in an area related to the student's program of study. Emphasis is placed on integrating classroom learning with related work experience. Upon completion, students should be able to evaluate career selection, demonstrate employability skills, and satisfactorily perform work-related competencies.(2014 FA)		
WBL-131T	Work-Based Learning III	1 (0-10) Fall
Prerequisites:	WBL-121T	
Corequisites:	None	
This course provides a work-based learning experience with a college-approved employer in an area related to the student's program of study. Emphasis is placed on integrating classroom learning with related work experience. Upon completion, students should be able to evaluate career selection, demonstrate employability skills, and satisfactorily perform work-related competencies.(2014 FA)		
WBL-132P	Work-Based Learning III	2 (0-20) AND
Prerequisites:	None	
Corequisites:	None	
This course provides a work-based learning experience with a college-approved employer in an area related to the student's program of study. Emphasis is placed on integrating classroom learning with related work experience. Upon completion, students should be able to evaluate career selection, demonstrate employability skills, and satisfactorily perform work-related competencies.(2014 FA)		

WBL-211K Work-Based Learning IV 1 (0-10) Fall**Prerequisites:** None**Corequisites:** None

This course provides a work-based learning experience with a college-approved employer in an area related to the student's program of study. Emphasis is placed on integrating classroom learning with related work experience. Upon completion, students should be able to evaluate career selection, demonstrate employability skills, and satisfactorily perform work-related competencies.(2014 FA)

WBL-212D Work-Based Learning IV 2 (0-20) Summer**Prerequisites:** None**Corequisites:** None

This course provides a work-based learning experience with a college-approved employer in an area related to the student's program of study. Emphasis is placed on integrating classroom learning with related work experience. Upon completion, students should be able to evaluate career selection, demonstrate employability skills, and satisfactorily perform work-related competencies.(2014 FA)

WBL-212T Work-Based Learning IV 2 (0-20) Summer**Prerequisites:** None**Corequisites:** None

This course provides a work-based learning experience with a college-approved employer in an area related to the student's program of study. Emphasis is placed on integrating classroom learning with related work experience. Upon completion, students should be able to evaluate career selection, demonstrate employability skills, and satisfactorily perform work-related competencies.(2014 FA)

WEB WEB TECHNOLOGIES

WEB-115 Web Markup and Scripting 3 (2-3) Summer**Prerequisites:** None**Corequisites:** None

This course introduces Worldwide Web Consortium (W3C) Internet programming using JavaScript. Topics include basic syntax, object-oriented programming, functions, variables, events, arrays, validation, accessibility, and web standards. Upon completion, students should be able to write, debug, maintain well-formed and well documented interactive web content using JavaScript code.(2022 SP)

WEB-140 Web Development Tools 3 (2-3) Fall**Prerequisites:** None**Corequisites:** None

This course provides an introduction to web development tools. Topics include creating websites using web development tools and web standards. Upon completion, students should be able to create small web sites and upload files to a web server.(2020 FA)

COURSE DESCRIPTIONS

WEB-151 Mobile Application Dev I 3 (2-3) Summer

Prerequisites: None**Corequisites:** None

This course introduces students to programming technologies, design, and development related to mobile applications. Topics include accessing device capabilities, compliance with industry standards, and programming for mobile applications. Upon completion, students should be able to develop basic applications for mobile devices.(2022 FA)

WEB-182 PHP Programming 3 (2-3) AND

Prerequisites: None**Corequisites:** None

This course introduces students to the server-side, HTML-embedded scripting language PHP. Emphasis is placed on programming techniques required to create dynamic web pages using PHP scripting language features. Upon completion, students should be able to design, code, test, debug, and create a dynamic web site using the PHP scripting language.(2022 FA)

WEB-210 Web Design 3 (2-3) Fall

Prerequisites: None**Corequisites:** None

This course introduces intermediate to advanced web design techniques. Topics include customer expectations, advanced markup language, multimedia technologies, usability and accessibility practices, and techniques for the evaluation of web design. Upon completion, students should be able to employ advanced design techniques to create high impact and highly functional web sites. (2023 SP)

WEB-214 Social Media 3 (2-3) Spring

Prerequisites: None**Corequisites:** None

This course introduces students to social media for organizations. Topics include social media, marketing strategy, brand presence, blogging, social media analytics and technical writing. Upon completion, students should be able to utilize popular social media platforms as part of a marketing strategy, and work with social media analytics tools.(2022 FA)

WEB-225 Content Management Sys 3 (2-3) Spring

Prerequisites: None**Corequisites:** None

This course introduces students to Content Management Systems (CMS) designed for the publication of Web content to Web sites. Topics include individual user accounts, administration menus, RSS-feeds, customizable layout, flexible account privileges, logging, blogging systems, creating online forums, and modules. Upon completion, students should be able to register and maintain individual user accounts and create a business website and/or an interactive community website. (2023 SP)

WLD-110	Cutting Processes	2 (1-3)	Spring
Prerequisites:	None		
Corequisites:	None		

WLD-111	Oxy-Fuel Welding	2 (1-3)	AND
Prerequisites:	None		
Corequisites:	None		

WLD-112	Basic Welding Processes	2 (1-3)	AND
Prerequisites:	None		
Corequisites:	None		

This course introduces basic welding and cutting. Emphasis is placed on beads applied with gases, mild steel fillers, and electrodes and the capillary action of solder. Upon completion, students should be able to set up welding and oxy-fuel equipment and perform welding, brazing, and soldering processes.(1997 SU)