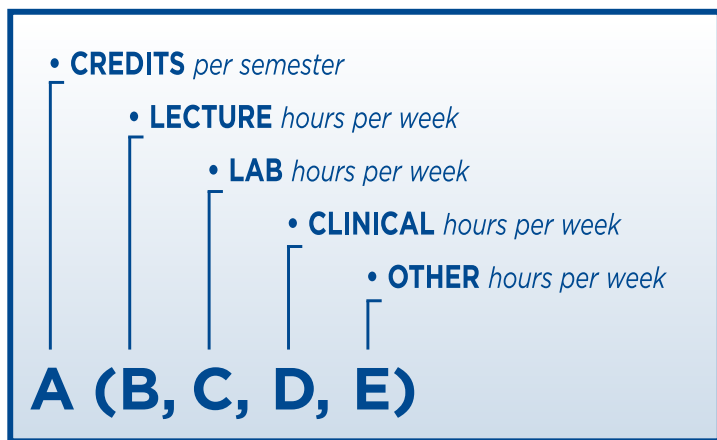


**COURSE DESCRIPTIONS**

The following course descriptions are intended to briefly describe the nature of each of the courses. For more complete information, departments or faculty can provide specific course syllabuses.

The numbers in the right side of each description define the credits and average weekly contact hours the student will spend in formal classes during a 16 week semester. Classes scheduled for other than a 16 week semester will have the contact hours adjusted accordingly.

- A** – defines the number of semester credits
- B** – average number of lecture hours per week
- C** – average number of laboratory hours per week
- D** – average number of clinical hours per week
- E** – average number of other formal instructional hours per week



In addition to these hours, students are expected to complete homework assignments on their own time. These assignments may include library research, computer utilization, field trips, cultural performances, and other instructional activities.

**EXAMPLE**

<b>ENG 101</b>	<b>Composition I</b>	<b>3 (3,0,0,0)</b>
	<b>3</b> credits	
	<b>3</b> lecture hours	
	<b>0</b> laboratory hours	
	<b>0</b> clinical hours	
	<b>0</b> other hours	

Architecture-Design

**AAD 180 Fundamentals of Design I 3 (2,2,0,0)**

Introduction to the principles and theories of design and design methodology in the “making” of representations of form and space.

**AAD 182 Fundamentals of Design II 3 (2,2,0,0)**

Continuation of AAD 180, with emphasis on spatial sequence, tectonics, and design precedents.

Prerequisite: AAD 180.

Architecture

**AAE 100 Introduction to Architecture 3 (3,0,0,0)**

Survey of architecture. Includes historical examples and the theoretical, social, technical, and environmental forces that shape this profession. Especially for majors and non-majors who wish to explore this field as a career choice.

Automotive Technology, Collision and Repair

**ABDY 101B Collision Repair Fundamentals and Estimating 4 (1,6,0,0)**

This lecture/lab course includes an overview of the collision industry, instruction in safe shop procedures, measurement, vehicle disassembly, and estimating software and techniques. Successful students will earn I-CAR certification points.

**ABDY 110B Paint and Refinish I 4 (1,6,0,0)**

This course provides instruction in all phases of metal preparation: sanding, masking, metal treatment, priming, as well as spraying basecoat and clear coat and the proper use and maintenance of paint guns.

**ABDY 120B Non-Structural Welding 4 (1,6,0,0)**

This course prepares the student in general welding safety, Plasma Arc Cutting, Oxy and Acetylene welding, cutting, heating and GMAW MIG welding techniques. Students will be prepared to take the I-CAR hands on steel welding test.

**ABDY 122B Non-Structural Body and Panel and Trim 4 (1,6,0,0)**

This course covers the proper techniques for removal, installation, adjustment, and alignment of body hardware, body trim, and body sheet metal parts (using basic hand tools).

**ABDY 150B Structural I 4 (1,6,0,0)**

Introduction to specialized frame and unibody measuring, anchoring, and pulling equipment. The student will perform welding techniques and use corrosion preventive materials to restore the vehicle as closely as possible to pre-collision condition.

Prerequisite: ABDY 120B or Instructor approval.



**ABDY 152B Structural II 4 (1,6,0,0)**

This course prepares the student in the repair of moderate to heavily damaged vehicles using specialized frame and unibody measuring, anchoring, and pulling equipment. Continued instruction in welding techniques and corrosion preventive materials to restore the vehicle as closely as possible to pre-collision condition is included.

Prerequisite: ABDY 150B or Instructor approval.

**ABDY 180B Non-Structural Advanced Body Panel 4 (1,6,0,0)**

This course covers the identity of auto body parts and their structural relationships. Removal, installation, adjustment, and alignment of body hardware, body trim, and body sheet metal parts (using basic hand tools) are skills that are mastered in this course.

Prerequisite: ABDY 122B or Instructor approval.

**ABDY 220B Paint and Refinish II 4 (1,6,0,0)**

This course covers metal preparation, sanding, masking, metal treatment, and priming. Spraying of basecoat and clear coat, color matching, blending, and the proper care of a paint gun are also included. Students will learn blending, color adjusting and tinting.

Prerequisite: ABDY 110B or Instructor approval.

**Air Conditioning Technology****AC 100B Technician Certification Review 0.5 (0.5,0,0,0)**

A lecture course to prepare students for certification exam, devoted to all aspects of EPA regulatory requirements under Section 608 of the Clean Air Act.

**AC 101B Introduction to HVAC and Refrigeration 3 (2,3,0,0)**

This is an introduction course covering the mechanical and electrical functions of a HVAC system and the basic refrigeration cycle. This course will prepare students for the EPA 608 certification.

**AC 102B Introduction to HVAC Electrical Theory and Application 5 (4,2,0,0)**

This course covers electrical safety, basic electrical math, elementary circuit diagram reading and drawing, and motor theory. Labs cover: assembly and wiring techniques, and the use of electrical meters.

**AC 103B Introduction to HVAC Mechanical Theory and Application 5 (4,2,0,0)**

This course covers mechanical and electrical safety, basic mechanical math and physics, the refrigeration cycle, system components, enthalpy, and psychrometrics. Labs cover: recovery, evacuation, leak testing, charging, and system measurements.

**AC 106B Residential Gas Heating 5 (4,2,0,0)**

Types of gas furnaces, troubleshooting, function of controls, repair of mechanical controls, combustion efficiency tests, piping techniques, proper ventilation and combustion will be covered.

Prerequisite: AC 102B and 103B.

**AC 110B Intermediate HVAC Electrical Theory and Application 5 (4,2,0,0)**

This course covers intermediate level electrical diagram drawing and interpretation, enthalpy and psychrometrics, and specialized system components for resistance heat HVAC. Labs cover: wiring of various control circuits, and system measurements.

Prerequisite: AC 102B and 103B; and MATH 104B or above (except MATH 122 and 123).

**AC 111B Heat Pumps 5 (4,2,0,0)**

This course covers heat pumps and their operation. It will teach various defrost methods including time temperature, demand, air switch and other defrost controls. Charging methods which include superheat, weigh-in and dial-a-charge. The course will also include compressor change out methods and advance wiring. C.O.P., E.E.R., SEER rating and design points of heat pumps.

Prerequisite: AC 110B.

**AC 114B Heat Load Calculations 5 (4,2,0,0)**

The course will teach heat gain and loss using the J-Manual and worksheets. Students will be taught to do calculations on micro-computers. Also included in this course are the factors affecting system design and design procedures using Manual-D.

Prerequisite: MATH 104B or 116 or above (except MATH 122, 123).

**AC 115B Troubleshooting 5 (4,2,0,0)**

This course will teach recommended service and diagnosis procedures for air conditioning systems. This will include general troubleshooting procedures for both mechanical and electrical systems.

Prerequisite: AC 106B and 110B; or instructor approval..

**AC 116B Copper Fundamentals 1 (1,0,0,0)**

Silver braising, Oxy-Acetylene equipment, use of copper tubing, swagging, flaring, bending, and proper cutting techniques in air conditioning applications will be covered.

**AC 119B Professionals in Customer Service 1.5 (1.5,0,0,0)**

This course introduces a methodical approach to problem resolution to service professionals (dispatchers, technicians, owners). It is also designed to contain, qualify, and correct various problems with good and bad outcomes. This course instructs students to focus on their communication skills prior to using technical expertise.



**AC 120B Air Conditioning Duct Work Fabrication 3 (2,2,0,0)**

This course covers basic duct work fabrication, as it applies to the Air Conditioning industry. Areas covered include cutting, computing size requirements, plenums and straight fittings.

**AC 200B Commercial Refrigeration I 5 (4,2,0,0)**

An introduction to commercial refrigeration. Deals with system components, mechanical and electrical controls, random and planned defrost, various accessories, application and types of refrigeration systems and troubleshooting basic commercial systems.

Prerequisite: AC 110B; and either BUS 108 or COM 101 or 102 or 115 or 215 or ENG 102 or 114 or 205 or JOUR 102 or THTR 105.

**AC 201B HVAC Automatic Controls 3 (2,2,0,0)**

This course presents basic control theory of HVAC mechanical systems to maximize their operating efficiency in commercial and industrial applications. Topics include Direct Digital Controls (DDC), electric, pneumatic and electronic components, control applications including microprocessors, and energy management.

Prerequisite: AC 110B.

**AC 202B Commercial Refrigeration II 5 (4,2,0,0)**

This course covers sequence of operation, application, troubleshooting, repair, cleaning, and preventive maintenance techniques of various types of ice making equipment including flaked, cubed, and crushed ice machines.

Prerequisite: AC 200B

**AC 210B Boiler Operation and Maintenance 5 (4,2,0,0)**

This course covers operations, safety, water treatment, control devices used with hot water boilers, low pressure boilers, and power boiler systems.

Prerequisite: AC 106B

**AC 211 Transport Refrigeration 2 (1,2,0,0)**

This course covers maintenance, diagnosis, and repair of trailer mounted refrigeration systems. Proper refrigerant handling, EPA regulations and certifications are covered and students will be prepared for any required certification processes.

Prerequisite: DT 165 or Instructor approval.

**AC 212B Equipment Cooling 5 (4,2,0,0)**

An advanced course that prepares students to analyze different requirements and needs for maintaining exact temperature and humidification requirements of critical systems and process cooling systems used in data processing plants; hospitals; surgical centers; manufacturing facilities; and power distribution equipment. Topics include: system identification, controls used for process cooling equipment, humidification, ultraviolet cleaning, and filtration of air and water.

Prerequisite: AC 110B.

**AC 220B Chiller Operations and Maintenance 5 (4,2,0,0)**

This course prepares students for all necessary operations and prevention maintenance procedures for employment in central plant operations for high and low pressure chillers. Subjects to include: operation, safety, controls, pumps, maintenance, purge units and cooling towers.

Prerequisite: AC 110B

**AC 221B Gas Heat Pump Technology I 5 (4,2,0,0)**

The student will learn the basics of gas heat pumps. Included will be an introduction to the various products, controls, and equipment. Basic operational theory and application will be explored as well as an introduction to installations. R-410a, electrical and mechanical safety will also be covered, designed to give the student a good overview of this technology.

Prerequisite: AC 111B.

**AC 295B Internship HVAC Career 1-16 (0,0,0,15-90)**

This course is designed to provide practical experience applying the HVAC (Heating, Ventilation and Air Conditioning) theory and techniques gained in other CSN HVAC courses through on-the-job experience while working alongside experienced HVAC technicians. The faculty advisor will meet with the student and professional company official weekly to evaluate designated components of the internships and provide guidance.

**Accounting****ACC 105 Taxation for Individuals 3 (3,0,0,0)**

Development of the individual taxpayer's taxable income through an analysis of income, exemptions, deductions and credits.

**ACC 135B Bookkeeping I 3 (3,0,0,0)**

Introduction to the basic principles of bookkeeping and accounting, theory of debit and credit, the bookkeeping cycle, journals, ledgers, bank reconciliations and payroll.

**ACC 201 Financial Accounting 3 (3,0,0,0)**

Basic accounting techniques with emphasis on the accounting cycle, analysis of financial statements, payables and receivables, plant assets, inventories and internal controls for cash.

**ACC 202 Managerial Accounting 3 (3,0,0,0)**

Accounting methods and techniques utilized by corporations, cost systems, budgeting, and the utilization of accounting data for planning and control.

Prerequisite: ACC 201.

**ACC 203 Intermediate Accounting I 3 (3,0,0,0)**

Accounting for assets and liabilities, concepts and techniques concerning preparation and analysis of the balance sheet, essentials of interest, annuities and present value.

Prerequisite: ACC 202.



**ACC 204 Intermediate Accounting II 3 (3,0,0,0)**

Accounting for stockholders' equity, statement of cash flows, statement analysis, pensions and leases.

Prerequisite: ACC 203.

**ACC 205 Cost Accounting 3 (3,0,0,0)**

Cost concepts and decision making, break even techniques, budgets and management analysis.

Prerequisite: ACC 201.

**ACC 210B IRS Computerized Tax Preparation Program 3 (3,0,0,0)**

Hands-on experience preparing computerized individual income tax returns utilizing the I.R.S. Electronic Filing System.

Prerequisite: ACC 105.

**ACC 220 Microcomputer Accounting Systems 3 (3,0,0,0)**

Develop skills in the use of computerized accounting. Interact with on-line realistic computerized accounting systems. Primary objective will be to focus on an applications approach using actual business case studies.

Prerequisite: ACC 201.

**ACC 222B Excel for Accounting 3 (3,0,0,0)**

Application of spreadsheet functions using the most popular spreadsheet program, Excel. Techniques covered will be creating and printing a worksheet, working with files, setting up data bases, and enhancing accounting information with the use of graphs and macros.

Prerequisite: ACC 201.

**ACC 223B Introduction to QuickBooks 3 (3,0,0,0)**

Computerized Accounting with QuickBooks is designed to introduce students to the QuickBooks accounting program. The student will receive hands-on training in the use of QuickBooks using fictitious case studies.

Prerequisite: ACC 201 or Instructor approval.

**ACC 295B Work Experience I 3 (0,0,0,15)**

Cooperative Education course designed to provide the student with on-the-job supervised educationally directed work experience with the accounting program. Student must work a minimum average of 15 hours per week for a total of 225 hours to earn practicum work experience credit. Grade will be given upon verification of employment.

**Architectural Design Technology****ADT 100B Introduction to Drafting Theory 3 (2,2,0,0)**

An introduction to manual drafting theory as utilized in fields of architecture, interior design and graphic arts. Geometric construction, orthographic projection, elevations and isometric drawings are included. Open lab will be required.

**ADT 103B Urban Planning 3 (3,0,0,0)**

Introduction to the forces shaping urban development, to include: history and determinants of influence, nature of urban form, comprehensive planning and implementation, zoning, general terms relating to development, State statutes, and local land use controls.

Prerequisite: ENG 100 or 101 or 107 or 113.

**ADT 107B Architectural Residential Codes 2 (2,0,0,0)**

The main emphasis of this course will be placed on the Residential Building Code. Students will also study portions of the Residential Electrical, Mechanical, Plumbing and Energy Conservation Codes.

**ADT 114B History of the Built Environment 3 (3,0,0,0)**

This course will discuss the history of architecture and city design in the western and the non-western civilization. The time periods to be covered will be from classical Greek, Hellenistic and Roman, through the Romanesque period, including the events and architecture of non-western civilization happening in the same time frame. The influences these architecture and design philosophies have had on the shaping of civilization will also be discussed.

**ADT 201B Introduction to Building Information Modeling 3 (2,2,0,0)**

This course introduces students to building information modeling by providing them with the essential tools and concepts for using Autodesk Revit. Students will develop a project from conceptual design to construction documents in a hands-on, scenario-based learning environment.

**ADT 202B Intermediate Building Information Modeling 3 (2,2,0,0)**

This course covers a wide range of intermediate level topics in Autodesk Revit, continuing to build on the concepts introduced in the Introduction to Revit course.

Prerequisite: ADT 201B.



**ADT 205B Architectural Environmental Control Systems 3 (3,0,0,0)**

This course will help students comprehend the principles of design relating to the creation of habitats that efficiently meet the needs of the intended occupant. Content will include general systems terminology and principles and green building construction.

Prerequisite: ADT 107B and GEOG 103.

**ADT 210B Residential Structural Technology 3 (2,2,0,0)**

This course will help students to apply basic structural principles to problems encountered in the design and construction of residential and light commercial structures not exceeding two stories in height.

Prerequisite: EGG 131 and 131L; or PHYS 151.

**ADT 280B Architectural Residential Design 3 (2,2,0,0)**

Emphasis will be placed on the conceptual process of designing a residential project. Students will present their final project to a jury of professionals.

Prerequisite: ADT 100B and 107B; and CONS 120B; and AAD 182.

**ADT 282B Architectural Residential Design II 3 (2,2,0,0)**

A continuation of ADT 280B. Students will develop comprehensive design solutions to challenging residential design briefs.

Prerequisite: ADT 280B.

**Air Force ROTC****AES 110 The Foundations of the United States Air Force I 1 (1,0,0,0)**

A survey course designed to introduce AFROTC cadets and prospective Air Force officers to the Air Force culture. Course describes the heritage and structure of the United States Air Force and the opportunities available to the Air Force corps.

**AES 111 AFROTC Leadership Lab I-A 2 (0,4,0,0)**

A progression of experiences designed to develop leadership ability and awareness of the Air Force lifestyle with emphasis on: Air Force customs and courtesies; drill and ceremonies, physical fitness, the Air Force officer's environment and culture and opportunities available to commissioned officers. Graded Pass/Fail.

Corequisite: AES 110 or equivalent.

**AES 120 The Foundations of the United States Air Force II 1 (1,0,0,0)**

Survey course designed to introduce AFROTC cadets to the leadership aspects of being an Air Force officer and the environment in which the Air Force functions. Course emphasizes the Air Force's core values and other unique characteristics of serving in the United States Air Force.

Prerequisite: AES 110 or equivalent.

**AES 121 AFROTC Leadership Lab I-B 2 (0,4,0,0)**

A progression of experiences designed to develop leadership ability and awareness of the Air Force lifestyle with emphasis on: Air Force customs and courtesies; drill and ceremonies, physical fitness, the Air Force officer's environment and culture and opportunities available to commissioned officers. Graded Pass/Fail.

Corequisite: AES 120 or equivalent.

**AES 230 The Evolution of USAF Air and Space Power I 1 (1,0,0,0)**

Survey course designed to trace the development of the U.S. Air Force air and space power through a historical prism. Begins with the study of early flight and concludes with the Korean conflict. Special emphasis is placed on the evolving nature of Air Force capabilities, functions and doctrine

**AES 231 AFROTC Leadership Lab II-A 2 (0,4,0,0)**

An in-depth progression of experiences developing leadership ability and awareness of the Air Force lifestyle. Focus is on continued military training related to uniform wear, military customs and courtesies, and military ceremonies. Graded Pass/Fail.

Corequisite: AES 230 or equivalent.

**AES 240 The Evolution of USAF Air and Space Power II 1 (1,0,0,0)**

Survey course to trace the development of U.S. Air Force air and space power through a historical prism. The course begins with the study of the Vietnam War and concludes with the second war against Iraq. Emphasis is placed on the evolving nature of Air Force capabilities, functions and doctrine.

Prerequisite: AES 230 or equivalent.

**AES 241 AFROTC Leadership Lab II-B 2 (0,4,0,0)**

An in-depth progression of experiences developing leadership ability and awareness of the Air Force lifestyle. Focus is on continued military training related to uniform wear, military customs and courtesies, and military ceremonies. AES 241 is required for all cadets applying to attend Field Training. Graded Pass/Fail.

Corequisite: AES 240 or equivalent.



## Applied Industrial Technology

### **AIT 205B Industry Customer Service 1 (1,0,0,0)**

This course introduces a methodical approach to problem resolution to industry professionals and is designed to contain, qualify, and correct various problems. Students will learn to focus on their communication skills prior to using technical expertise. Graded Pass/Fail.

## Academic and Life Success

### **ALS 101 College Success 3 (3,0,0,0)**

Learn strategies for mastering academic and life success. Course topics include change, goal setting, money, time/priority management; test preparation, note-taking, memory techniques; relationships, communication, listening, wellness, diversity and personal responsibility.

## American Sign Language

### **AM 145 American Sign Language I 4 (4,0,0,0)**

Designed mainly to introduce ASL and to focus on the development of basic conversational skills, emphasizing receptive skills.

### **AM 146 American Sign Language II 4 (4,0,0,0)**

The course continues to stress the development of basic conversational skills with emphasis on expanding vocabulary and expressive skills.

Prerequisite: AM 145 or Instructor approval.

### **AM 147 American Sign Language III 4 (4,0,0,0)**

This course promotes the shifting from comprehension to production of ASL, to bring one's current ASL fluency to a point of self-generated ASL.

Prerequisite: AM 146 or Instructor approval.

### **AM 148 American Sign Language IV 4 (4,0,0,0)**

This course encourages the student to expand his or her command of discourse in ASL on various everyday topics.

Prerequisite: AM 147 or Instructor approval.

### **AM 149 American Sign Language V 4 (4,0,0,0)**

A course intended to encourage majors in Deaf Studies to further develop their conversational ASL abilities, particularly in the area of self expression.

Prerequisite: AM 148 or Instructor approval.

### **AM 151 Fingerspelling I 1 (1,0,0,0)**

This course is designed to develop basic skills in receptive and expressive fingerspelling.

Corequisite: AM 147 or Instructor approval

### **AM 152 Fingerspelling II 1 (1,0,0,0)**

This course is designed to improve receptive and expressive fingerspelling skills to intermediate/advanced levels.

Prerequisite: AM 147 or Instructor approval

### **AM 156 A Survey of Deafness 1 (1,0,0,0)**

This survey course provides students an overview of deafness including such topics as: career options, deaf culture, language, communication modes, adaptive equipment and causes of deafness.

### **AM 205 Introduction to Interpreting 4 (4,0,0,0)**

An introduction and overview of the profession of sign language interpretation, including standards of practice, Code of Ethics for Interpreters, professionalism, business practices and assessment skills.

Prerequisite: AM 145-149; and 151 and 152; or Instructor approval.

### **AM 206 Consecutive Interpreting 4 (2,4,0,0)**

This skills development course focuses on the task of interpretation and transliteration skills between American Sign Language, English, and other communication modes used by deaf people using consecutive interpreting strategies.

Prerequisite: AM 145-149; and 151 and 152; or Instructor approval.

### **AM 207 Simultaneous Interpreting 4 (2,4,0,0)**

This skills development course focuses on the task of interpretation and transliteration between American Sign Language, English and other communication modes used by deaf people using simultaneous interpreting strategies.

Prerequisite: AM 206.

### **AM 208 Observation/Practicum in Interpreting 3 (1,0,0,8)**

This course provides students opportunities to shadow, observe and interact with professional interpreters in a supervised observation/practicum setting. Class discussions will be held in seminar format.

Prerequisite: AM 207.

### **AM 209 Advanced Interpreting 4 (2,4,0,0)**

This course continues the development of skills in interpretation and transliteration in order to prepare students for employment. Emphasis is placed on practical application of theory and process of interpreting in class and lab situations.

Prerequisite: AM 207.

### **AM 211 Internship in Interpreting 3 (1,0,0,8)**

This course provides internship experiences to students in the final semester of the interpreter preparation program. Site visits will be made by the instructor.

Prerequisite: Instructor approval.

### **AM 253 Deaf Culture 3 (3,0,0,0)**

This course is designed to introduce students to the American Deaf Culture and definitions of culturally linked terms and philosophies.

Prerequisite: Instructor approval or Corequisite: AM 147.



**AM 254 Deaf History 3 (3,0,0,0)**

This course is designed to introduce students to the history of deaf people and the sociological, psychological, educational, and political forces which have shaped the field of deafness.

Prerequisite: Instructor approval or Corequisite: AM 148.

**AM 255 Structure of American Sign Language 3 (3,0,0,0)**

This course acquaints students with the information and research concerning phonetics, morphology, syntax, semantics, neurolinguistics, psycholinguistics, and sociolinguistics of American Sign Language. This class will be conducted in American Sign Language without voice.

Prerequisite: Instructor approval or Corequisite: AM 149.

**AM 257 ASL/English Translation 3 (3,0,0,0)**

This course is an introduction to the process of working between two languages. Students will analyze textual material and translate from the source into the target language with the goal of maintaining semantic accuracy.

Prerequisite: AM 255 or Instructor approval.

**AM 304 Principles and Practices in Interpreting 4 (2,4,0,0)**

This course includes a review of the history and development of the profession of sign language interpreting, the laws affecting the profession, various models of interpretation, standards of practice, the Registry of Interpreters for the Deaf Code of Professional Conduct, professionalism, business practices, language and cultural implications and client assessment skills. This class is conducted in American Sign Language.

Prerequisite: AM 149 and 152.

**AM 306 Consecutive Interpreting Applications 4 (2,4,0,0)**

This practice-oriented course focuses on further developing, fine-tuning, and diagnosing consecutive interpretation techniques, strategies and transliteration skills to achieve entry-level employment status. Tasks focus on American Sign Language, English and include discussion and incorporation of other communication modes used by Deaf people.

Prerequisite: AM 304 or instructor approval.

**AM 307 Simultaneous Interpreting Applications 4 (2,4,0,0)**

This practice-oriented course focuses on further developing, fine-tuning, and diagnosing simultaneous interpretation techniques, strategies and transliteration skills to achieve entry-level employment status. Tasks focus on American Sign Language, English and include discussion and incorporation of other communication modes used by Deaf people.

Prerequisite: AM 306 or instructor approval.

**AM 308 Observation/Practicum in Interpreting 3 (1,0,0,36)**

This course provides students opportunities to shadow, observe and interact with professional interpreters in a supervised observation/practicum setting. Class discussions will be held in a seminar format.

Prerequisite: AM 307 with a grade of C or higher; or instructor approval.

**AM 309 Advanced Interpreting 4 (0,6,0,0)**

This course continues the development of skills in interpretation and transliteration in order to prepare students for employment. Emphasis is placed on practical application of theory and process of interpreting in class and lab situations.

Prerequisite: AM 307 and AM 308 both with a grade of C or better; or instructor approval.

**AM 310 Specialized Interpreting 3 (3,0,0,0)**

This course introduces students to areas of specialization in the field of interpreting such as: medical, legal, deaf-blind, educational, artistic, religious, video relay, video remote, testing, business practices and mental health. Each area of specialization will include vocabulary, discourse analysis, demand control schema, interpreting techniques and practical text to analyze and interpret.

Prerequisite: AM 306 with a grade of C or better; or instructor approval.

**AM 401 Artistic Interpreting 3 (2,3,0,0)**

This course introduces students to the area of artistic interpreting which includes theatrical and musical productions, song lyric and poetry translation and platform interpreting techniques.

Prerequisite: AM 310 or instructor approval.

**AM 402 Medical Interpreting 3 (2,3,0,0)**

This course is designed to develop skills in the area of medical interpreting which includes specialized vocabulary, ethical considerations, laws, mental health, professional behavior and protocol in medical settings. Includes practicum.

Prerequisite: AM 310 or instructor approval.

**AM 403 Educational Interpreting 3 (2,3,0,0)**

This course introduces the specialty of interpreting in educational settings from pre-school through post-secondary levels.

Prerequisite: AM 310.

**AM 404 Mentorship In Interpreting 3 (1,6,0,0)**

This seminar course provides students with continued skill development by experiential learning with the guidance of an assigned mentor interpreter. Students will participate in interpreting assignments and get direct feedback from the mentor.

Prerequisite: AM 310 or instructor approval.



**AM 405 Capstone Seminar 3 (1,6,0,0)**

This seminar course is designed to prepare students for the Educational Interpreter Performance Assessment for interpreters working in the K-12 educational setting and the National Interpreter Certification Evaluation offered by the Registry of Interpreters for the Deaf. Both evaluations are required by NV state law (NRS 656A).

Prerequisite: AM 310 or instructor approval.

**AM 450 Internship in American Sign Language Interpreting 1-6 (0,0,0,36-216)**

This course provides students the opportunity to shadow, observe and interact with professional interpreters in a supervised observation/practicum setting. Students attend off site interpreter assignments, observe working interpreters, document observations and questions and actively participate in reflective journaling. Students will begin to develop a professional portfolio. Participation in class seminars is required.

Prerequisite: Instructor approval.

## Anthropology

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**ANTH 101 Introduction to Cultural Anthropology 3 (3,0,0,0)**

An in-depth analysis of culture revealed by world ethnography.

**ANTH 102 Introduction to Physical Anthropology 3 (3,0,0,0)**

Genetics, heredity, diversity, and the origins and evolution of humans. Examines basic evolutionary biology, including natural selection, and the relevant history, science, and methods in this field.

**ANTH 104 Great Discoveries in Archaeology 3 (3,0,0,0)**

Examination of famous archaeological discoveries and contemporary archaeological research. Highlights archaeology's contributions to modern views of the past.

**ANTH 105 Introduction to World Archaeology 3 (3,0,0,0)**

Development of human society and technology from the earliest traces of culturally patterned behavior to the emergence of civilization in the Old and New Worlds.

**ANTH 106 Introduction to Anthropological Linguistics 3 (3,0,0,0)**

Introduction to the anthropological study of language in the context of culture. This course also examines the scientific study of phonology, morphology, syntax, and semantics.

**ANTH 110L Physical Anthropology Lab 1 (0,3,0,0)**

Applied investigation of genetics, evolutionary biology, human skeletal anatomy, non-human primates, and human ancestors. Intended to satisfy the lab science general education requirement.

Prerequisite: ANTH 101 with a grade of C or better.

**ANTH 112 Social Anthropology 3 (3,0,0,0)**

An examination of the application of anthropological concepts to contemporary society. The results of studies of non-western, sociocultural systems used in considering alternate solutions to the problems confronting Western man today will be covered.

**ANTH 133 Culture and Communication 3 (3,0,0,0)**

Introduction to theory, analysis and practice in understanding culture and its impact on communication. Emphasis on the use of cultural awareness and multicultural sensitivity to improve oral and written communication. (Same as COM 133.)

**ANTH 201 Peoples and Cultures of the World 3 (3,0,0,0)**

A study of human cultural diversity and institutions among various people and societies around the world.

**ANTH 202 Introduction to Archaeology 3 (3,0,0,0)**

An examination of the research goals, theoretical foundations, and methods of anthropological archaeology. Examples are drawn from archaeological sites worldwide, with a Great Basin emphasis.

**ANTH 203 Special Topics in Anthropology 3 (3,0,0,0)**

Intensive survey of major areas of Anthropology. Topics will vary. May be repeated up to six (6) credits.

Prerequisite: ANTH 101.

**ANTH 204 Art in Cross-Cultural Perspective 3 (3,0,0,0)**

An examination of cultural influences on art production, process, and meaning, as viewed across diverse modern, historic, and pre-historic contexts. Philosophies of art and the relationships between art and various aspects of culture are explored.

**ANTH 205 Ethnic Groups in Contemporary Societies 3 (3,0,0,0)**

A survey of racial and ethnic intergroup relations in the United States and other societies. Emphasis is on cultural, social, and institutional factors that lead to group conflict and/or cultural pluralism. (Same as SOC 205.)

**ANTH 206 African Culture Through Oral History and Storytelling 3 (3,0,0,0)**

An exploration of the different life-ways in various societies of Africa and African Diaspora through oral traditions and folklore.





**ANTH 207 Sport and Culture 3 (3,0,0,0)**

This course looks at the relationship of sport and culture in past and contemporary world cultures. The course uses western and non-western sports to illustrate the nature of this relationship.

**ANTH 209 Gender in Cross-Cultural Perspective 3 (3,0,0,0)**

An examination of human gender and sexuality through an investigation of cross-cultural similarities and differences.

**ANTH 211 Introduction to the Archaeology of North America 3 (3,0,0,0)**

Examines the prehistory of North America from the peopling of the continent to European contact. Particular emphasis is on the prehistory of the Great Basin.

**ANTH 212 Introduction to North American Indians 3 (3,0,0,0)**

Survey of traditional life and modern conditions of American Indians with emphasis on the western United States.

**ANTH 214 Introduction to Mesoamerican Prehistory and Archaeology 3 (3,0,0,0)**

The study of prehistoric and protohistoric cultures of Mexico and Central America, including the Aztecs and Mayans.

**ANTH 215 Introduction to Faith, Witchcraft and Magic 3 (3,0,0,0)**

Introduces students to the anthropological study of religion as a human institution. Examines the history, methods, and current status of the field.

**ANTH 216 Cultures Through Film 3 (3,0,0,0)**

An exploration of societies, cultures and cultural anthropology through film. Ethnographic and documentary films are shown.

**ANTH 217 Drums, Culture, and New World Rhythmatism 3 (3,0,0,0)**

Explore relationships between culture and the arts while learning to play hand drums from around the world. Experiential learning for body and mind.

**ANTH 218 Introduction to the Archaeology of the Great Basin and the Southwest 3 (3,0,0,0)**

An archaeological perspective on the lifeways of the Great Basin and Southwest American Indian communities over the past 13,000 years.

**ANTH 222 Fundamentals of Forensic Anthropology 3 (3,0,0,0)**

Overview of the practice of forensic anthropology. Identification methods to determine age, sex, ancestry, stature, and unique characteristics from skeletal remains. The role of anthropologists in human rights and disaster response.

Prerequisite: ANTH 102 with a grade of C or higher.

**ANTH 225 Archaeological Field Methods Survey 3 (3,0,0,0)**

Introduction to archaeological field research that uses current survey and recording methods to identify archaeological sites.

**ANTH 226 Archaeological Field Methods Excavation 3 (3,0,0,0)**

Introduction to archaeological excavation and recording of prehistoric and historic sites.

**ANTH 227 Foundations of Archaeological Lab Methods 3 (0,3,0,0)**

A practical introduction to archaeological laboratory methods, which may include inventorying, processing, and cataloging artifacts, and preparing them for analysis and curation.

**ANTH 290 Internship in Anthropology 1 (0,0,0,1)**

Supervised work experience in anthropology under guidance of a professional anthropologist or related professional. Student will apply knowledge and skills to real on-the-job situations. Students must complete a minimum of two (2) credits to satisfy the requirements of the Cultural Resource Management Certificate of Achievement.

Prerequisite: ANTH 101 with a grade of C or higher and a grade of C or higher in either ANTH 102 or 105 or 106.

**ANTH 228 Health, Healing and Culture 3 (3,0,0,0)**

Health and healing from an anthropological perspective. Cross-cultural investigation of social, ecological, and evolutionary aspects of human health. Biocultural approaches to contemporary health issues.

**ANTH 291 Practicum: Group Discussion Leader 2 (1,0,0,4)**

This course is designed to introduce the student to skills and facilities of instruction in the college classroom.

Prerequisite: ANTH 101.

**ANTH 299 Capstone Course in Anthropology 2 (2,0,0,0)**

Provides theoretical and practical overview of the field of anthropology in relationship to the Anthropology AA degree and emphasis.

Prerequisite: Completion of Associate of Arts Anthropology degree program.



## Arabic

### **ARA 111 First Year Arabic I 4 (4,0,0,0)**

This course is intended to teach the alphabet and sound system of Modern Arabic. It will introduce basic conversation in Egyptian Arabic as well as the cultural norms related to these conversations. It will include basic Arabic vocabulary and an introduction to Arabic grammar.

### **ARA 112 First Year Arabic II 4 (4,0,0,0)**

This course is intended for non-native Arabic speakers who wish to study modern Arabic, including listening, speaking, reading, and writing. The course focuses primarily on Modern Standard Arabic but also includes practice with the spoken Arabic of Egypt.

Prerequisite: ARA 111 or Department approval.

### **ARA 211 Second Year Arabic I 3 (3,0,0,0)**

This course is a continuation of ARA 112, and is intended for non-native Arabic speakers who wish to study modern Arabic, including listening, speaking, reading, and writing. This course focuses primarily on Modern Standard Arabic but also includes practice with the spoken Arabic of Egypt.

Prerequisite: ARA 112 or Department approval.

### **ARA 212 Second Year Arabic II 3 (3,0,0,0)**

This course is a continuation of ARA 211, Second Year Arabic I, and is intended for non-native Arabic speakers who wish to study modern Arabic, including listening, speaking, reading, and writing. This course focuses primarily on Modern Standard Arabic but also includes practice with the spoken Arabic of Egypt.

Prerequisite: ARA 211 or Department approval.

## Art

### **ART 100 Visual Foundations 3 (0,6,0,0)**

Explores visual forms and contemporary concepts through a variety of media, presentations, and discussions.

### **ART 101 Drawing I 3 (0,6,0,0)**

An introductory studio course emphasizing a disciplined foundation in drawing concepts based on visual observations.

### **ART 102 Drawing II 3 (0,6,0,0)**

Further development of the fundamental drawing skills acquired in ART 101. Emphasis on extending visual concepts, exploring alternate materials and developing compositional devices. Study of various applications of life drawing included.

Prerequisite: ART 101.

### **ART 105 Color Theory 3 (0,6,0,0)**

An introduction to color interaction, optical phenomena and their creative application.

### **ART 106 Jewelry I 3 (0,6,0,0)**

Introduction to basic fabricating processes, i.e., sawing and soldering of both common and fine metals. From simple jewelry pieces to setting stones or construction of simple non-jewelry pieces. Includes historical evolution of metal work and student research. Emphasis on knowledge and development of manual skills and personal aesthetic sense.

### **ART 107 Design Fundamentals I (2-D) 3 (0,6,0,0)**

A course in art fundamentals designed to develop a visual language. Emphasis on the application of the elements and principles of pictorial structure, point, line, shape, plane, space and color.

### **ART 108 Design Fundamentals II (3-D) 3 (0,6,0,0)**

An introduction to the principles and elements of sculptural process in a variety of media which may include wood, plaster, clay and metal.

### **ART 124 Introduction to Printmaking 3 (0,6,0,0)**

Introduction to printmaking with emphasis on its creative possibilities. One or several of the basic techniques developed: intaglio, lithography, serigraphy, monotype and relief printmaking.

Prerequisite: ART 101.

### **ART 127 Watercolor I 3 (0,6,0,0)**

An introduction to the opaque and transparent watercolor media and the development of techniques and skills in the manipulation of the medium.

### **ART 135 Photography I 3 (0,6,0,0)**

A beginning course which emphasizes a fine arts and aesthetic approach to the medium. Assignments explore ideas in contemporary art while developing technical and darkroom skills.

### **ART 141 Introduction to Digital Photography 3 (0,6,0,0)**

A beginning course in digital photography that emphasizes a fine arts approach. Technical proficiency and individual exploration are stressed.

### **ART 142 Introduction to Digital Photography II 3 (0,6,0,0)**

Intermediate study of operations and techniques in digital photography such as lighting, exposure and print enhancement. Emphasis placed on development of personal body of work.

Prerequisite: ART 141 or Instructor approval.

### **ART 156 Design Fundamentals III 3 (0,6,0,0)**

Introductory concepts, study of terminology and practical application of computer software used in visual art and design. Students use design principles to create projects in 2D, 3D, interactive, and time-based media.

Prerequisite: ART 141 or Instructor approval.



**ART 160 Art Appreciation 3 (3,0,0,0)**

An introduction to the visual arts. Emphasis will be placed upon the acquisition of the tools and the skills necessary to understand and interpret works of art. Traditional art forms, such as painting and sculpture will be considered as well as newer genres such as installation and performance.

**ART 160H Art Appreciation – Honors 3 (3,0,0,0)**

A writing-intensive introduction to the visual arts. Emphasis will be placed upon the acquisition of the tools and the skills necessary to understand and interpret works of art. Traditional art forms such as painting and sculpture will be considered as well as newer genres such as installation and performance. Courses with “H” suffixes are designated Honors-level courses and can be used to fulfill equivalent general education requirements.

Prerequisite: Admission to the Honors program.

**ART 201 Life Drawing I 3 (0,6,0,0)**

An introduction to the depiction of the human form with studies in anatomy and pictorial organization. Emphasis on technical skills based on observational studies.

Prerequisite: ART 102.

**ART 202 Life Drawing II 3 (0,6,0,0)**

A continuation of studies of the human form. Emphasis on conceptual development using a variety of materials.

Prerequisite: ART 201.

**ART 206 Jewelry II 3 (0,6,0,0)**

Introduction to the basic techniques of lost wax metal casting (centrifuge and vacuum). Includes information about advanced fabricating techniques with emphasis on personal expression and individual artistic growth.

Prerequisite: ART 106.

**ART 211 Ceramics I 3 (0,6,0,0)**

Basic hand-building techniques are explored as means to produce vessel and sculptural forms along with glaze decoration. Cost of clay is in addition to course fee.

**ART 212 Ceramics II 3 (0,6,0,0)**

Introduction to basic wheel-throwing techniques to produce vessel forms, surface decorations and glaze application. Cost of clay is in addition to course fee.

**ART 216 Sculpture I 3 (0,6,0,0)**

An introduction to techniques and concepts in contemporary sculpture which will include casting, carving and constructing.

**ART 217 Sculpture II 3 (0,6,0,0)**

Intermediate study of techniques and concepts in contemporary sculpture.

Prerequisite: ART 216 or Instructor approval.

**ART 219 Beginning Sculpture Foundry 3 (0,6,0,0)**

Beginning techniques and concepts of traditional and contemporary cast metal including mold making, casting, tooling and patination.

Prerequisite: ART 216 or Instructor approval.

**ART 223 Beginning Printmaking: Screen Printing 3 (0,6,0,0)**

Introduction to the basic techniques of screenprinting with an emphasis on its creative potential.

Prerequisite: ART 101 or 107.

**ART 225 Intermediate Printmaking 3 (0,6,0,0)**

A continuation of ART 124 with emphasis on color theory, print history and the exploration of personal imagery. Studio projects will be based on individual interests with faculty advisement. Both group and individual critiques will be employed.

Prerequisite: ART 124.

**ART 226 New Technology Printmaking 3 (0,6,0,0)**

Introduction to photo, computer and hand-drawn imagery within the traditional printmaking format. Techniques covered will include: intaglio, lithography, and monotype.

Prerequisite: ART 101 and 124.

**ART 231 Painting I 3 (0,6,0,0)**

Introduction to the concepts of painting, including color, form, technical skills and knowledge of materials. Emphasis on the development of aesthetic awareness. Projects will be problem-solving assignments.

Prerequisite: ART 101.

**ART 232 Painting II 3 (0,6,0,0)**

A continuation of ART 231 with an emphasis on conceptual development and individual interests.

Prerequisite: ART 101 and 231.

**ART 235 Photography II 3 (0,6,0,0)**

Intermediate level course which explores techniques such as Zone System, night photography, large format and alternate darkroom processes. Emphasis on development of personal body of work and exploration of contemporary photography. Includes field trips.

Prerequisite: ART 135.

**ART 243 Digital Imaging I 3 (0,6,0,0)**

An introduction to the concepts and practices of computer imaging and the use of related media with emphasis on creative applications of digital technology.

Prerequisite: ART 101 or 107.



**ART 244 Digital Imaging II 3 (0,6,0,0)**

Advanced application of the concepts and practice of computer imaging and the use of related media with emphasis on creative applications of digital technology.

Prerequisite: ART 243.

**ART 245 Digital Media I 3 (0,6,0,0)**

Exploration of various digital media in the creation of art.

**ART 253 Cinema II/The Sound Era 3 (3,0,0,0)**

This introductory course identifies creative use of film-making techniques and surveys the major genres of film since the 1930s. Main genres explored include the Western, Crime, Horror, Musical, Science Fiction, War, Comedy, Action-Adventure and Foreign. In-class films, class critiques, field trip.

**ART 260 Survey of Art History I 3 (3,0,0,0)**

A survey of Western art and architecture from the prehistoric era to the beginning of the Renaissance.

**ART 261 Survey of Art History II 3 (3,0,0,0)**

A survey of painting, sculpture and architecture in the West from the Renaissance through the modern era.

**ART 262 Survey of Asian Art 3 (3,0,0,0)**

An introduction to the art and architecture of Asia including India, Tibet, China, Korea, Japan, and Southeast Asia, through an exploration of the major religious and secular artistic traditions from Neolithic to Modern times. Slide lectures, video/film, discussions and museum field trip.

**ART 263 Survey of African, Oceanic, and Native American Art 3 (3,0,0,0)**

An introduction to the arts and architecture of Tribal Africa, Oceania and Aboriginal Cultures, and Native America. Slide lectures and class discussion. Field trips.

**ART 264 Survey of American Art 3 (3,0,0,0)**

Survey of the art and architecture of the United States from the colonial period through the late twentieth century. Slide lectures, discussions and videos.

**ART 265 Introduction to Contemporary Art 3 (3,0,0,0)**

Survey of the major art forms and movements since World War II and of the critical and cultural milieu in which they developed.

**ART 267 Pre-Columbian Art and Architecture 3 (3,0,0,0)**

Studies the art and architecture of the numerous traditions and cultures of South and Mesoamerica and the examination of the effects of European contact and later developments in the ancient Southwest.

**ART 270 Women in Art 3 (3,0,0,0)**

This course will explore the contributions women have made to Western art from the Middle Ages through the present. Among the topics we shall consider are: works of art produced by women artists and the historical circumstances in which they were produced; how women have been represented by Western artists, both male and female; and the role women have played in Western culture as art patrons and art collectors.

**ART 275 Survey of History of Photography 3 (3,0,0,0)**

Introduction to the artistic development of photography from early inventions as a technique to its use as a fine art. Considered also is relationship of photography to Modern Art movements and mass media. Slide lectures, discussion and field trips.

**ART 278 Art and Photography in 20th Century Mexico 3 (3,0,0,0)**

This course examines the contributions made by Mexican artists and photographers to twentieth century visual culture. The focus is on the "Mexican Renaissance" of the 1920s and 1930s; in particular, the revival of the fresco tradition and the effect it had on artistic production. Other topics include; the print tradition, easel painting, and the development of Mexican photography. (Same as PHO 278.)

**ART 298 Portfolio Emphasis 2 (1,2.5,0,0)**

Participants will develop portfolios, documents and verbal skills necessary for the college transfer or job acquisition in the fine arts field. Class will cover development of professional portfolio, résumé, artists' statement and marketing strategies in art. Twelve (12) hours of ART credits strongly recommended for entry into this course.

**Astronomy****AST 101 General Astronomy 3 (3,0,0,0)**

An elementary course which considers the solar system, stellar systems and stellar and galactic evolution according to currently accepted concepts. This course designed for non-science majors with little or no background in science or mathematics.

**AST 103 Introductory Astronomy: The Solar System 3 (3,0,0,0)**

A survey course at the beginning level which discusses the nearby objects of our solar system, the formation and evolution of planetary bodies and the exploration of space. A minimum of mathematics is required, in the tradition of the amateur astronomer. Recommended for non-science majors.

**AST 104 Introductory Astronomy: Stars and Galaxies 3 (3,0,0,0)**

A survey course at the beginning level which discusses stellar systems and galaxies. Topics include stellar evolution, formation of galaxies and cosmology. A minimum of mathematics is required, in the tradition of the amateur astronomer. Recommended for non-science majors.



**AST 105 Introductory Astronomy Laboratory 1 (0,3,0,0)**

Course provides practical experience in observational astronomy including telescopic observations and laboratory exercises. AST 105 fulfills the lab science elective for any degree program. Should be taken with or after taking AST 101 or AST 103 or AST 104.

Prerequisite: MATH 095 or above.

**AST 299B Directed Study 1-3 (0,3-9,0,0)**

Covers selected topics and directed student research of interest to students in astronomy.

Prerequisite: Instructor approval.

**Automotive Technology****AUTO 105B Automotive Maintenance I 2 (1,3,0,0)**

Students will learn basic operation of the major automotive systems, safety procedures, tool and equipment usage and using electronic service information while performing lubrication, tire and basic maintenance service procedures.

**AUTO 115B Automotive Electricity and Electronics I 4 (1,6,0,0)**

This course will introduce the operation of AC and DC electrical circuits, wiring diagrams and the use of Digital Multimeters and diagnosis of circuit malfunctions including battery, starting, charging and accessory systems.

Prerequisite: AUTO 105B.

**AUTO 117B Advanced Automotive Electronics 4 (1,6,0,0)**

Operation, diagnosis and repair of automotive electrical circuits including lighting and convenience accessories, instrument cluster/gauges, supplemental restraint systems, audio, cruise and anti-theft systems.

Prerequisite: AUTO 115B.

**AUTO 136B Engine Repair 5 (2,6,0,0)**

Students will learn to identify engine components and their operation, accurately use precision measuring tools, perform disassembly/assembly and maintenance procedures of engines, cooling systems and lubrication systems. Diagnosis of engine condition, leaks, and abnormal noises are emphasized.

Prerequisite: AUTO 105B.

**AUTO 145B Automotive Brakes 4 (1,6,0,0)**

Facilitate the theory, diagnosis, and service of drum, disc, and anti-lock braking systems, brake component machining, hydraulic component reconditioning, friction and hardware replacement.

Prerequisite: AUTO 115B.

**AUTO 155B Steering and Suspension 4 (1,6,0,0)**

Diagnose and service of steering and suspension components, tire service, balancing, and advanced alignment procedures. Identify components and perform service procedures for electronic steering systems.

Prerequisite: AUTO 105B.

**AUTO 165B Automotive Heating and Air Conditioning 4 (1,6,0,0)**

Service, operation, diagnosis and repair of automotive heating and air conditioning system components, including automatic temperature control systems. All refrigerant types are covered. Emphasis is placed on service and troubleshooting.

Prerequisite: AUTO 115B.

**AUTO 185B Introduction to Alternative Fueled Vehicles 3 (3,0,0,0)**

This course will familiarize students with the alternative fuels movement and the laws, regulations and programs affecting alternative fuels. The design and operation of alternative gaseous, liquid, bio-fuels, hydrogen, hybrid, electric vehicles and emerging technologies will be covered.

Prerequisite: AUTO 117B or Instructor approval.

**AUTO 205B Manual Drivetrain and Axles 4 (1,6,0,0)**

Operation, diagnosis, maintenance, repair of manual transmissions, clutch assemblies, differentials, drivelines, axles, and manual transaxles.

Prerequisite: AUTO 105B.

**AUTO 216B Automatic Transmissions 5 (2,6,0,0)**

Operation, diagnosis, maintenance, and repair of automatic transmissions including rear wheel drive, front wheel drive, and electronically controlled transmissions and transaxles.

Prerequisite: AUTO 117B.

**AUTO 225B Engine Performance I/ Fuel and Ignition 4 (1,6,0,0)**

Theory, function, service and analysis of engine related subsystems including ignition, fuel, starting, and charging systems. Emphasis is placed on diagnosis and operation of electronic engine control management systems.

Prerequisite: AUTO 117B and 136B.

**AUTO 227B Engine Performance II/ Emission Control 4 (1,6,0,0)**

Study of automotive emission control systems including an overview of State of Nevada license requirements. Utilization of current gas analyzers, diagnosis of emission test failures.

Prerequisite: AUTO 225B.



**AUTO 235B Engine Performance III/  
Diagnostics 4 (1,6,0,0)**

Study of advanced level diagnostic test procedures and the equipment used to analyze OBD-II emission and driveability concerns. Use of Digital Storage Oscilloscopes, current ramping, scan tool analysis and 4 and 5 gas analyzers is mastered.

Prerequisite: AUTO 227B.

**AUTO 240B Nevada 1G Emission  
Inspection Preparation 2 (2,0,0,0)**

This course meets the initial State of Nevada training requirements for those individuals wishing to become a Nevada 1G emission inspector.

**AUTO 245B Power Train Removal  
and Replacement 4 (1,6,0,0)**

Students will complete removal and installation of major automotive components including the engine assembly, transmission/transaxle assembly, differential and transfer case.

Prerequisite: AUTO 136B.

**AUTO 285B Hybrid Vehicle  
Service Techniques 4 (1,6,0,0)**

This course will cover safety procedures, design, operation, diagnosis and repair of all classification of hybrid electric vehicles. Each student must possess legal Class "O" HV gloves and liners to attend this class.

Prerequisite: AUTO 185B.

**AUTO 291B Work Experience I 1-4 (0,0,0,5-20)**

Cooperative education courses, designed to provide the student with on-the-job supervised and educationally directed work experience. Each course except AUTO 294B will have a prerequisite of successful completion of the preceding Work Experience course. One credit may be earned for each 5 hours worked per week during the semester up to a maximum of 4 credits per semester, not to exceed 16 credits total.

Prerequisite: Instructor approval.

## Aviation

**AV 100B Aviation Orientation 3 (3,0,0,0)**

This course will introduce students to the history and development of flight, basic aircraft principles, the aviation industry, and career opportunities within the industry.

**AV 105B Airport Operations 3 (3,0,0,0)**

An introduction to the principles of airport operations. Topics include management functions, airport classification, organizational structures, flight operations, maintenance operations and their relationship with commercial airlines, corporate flight operations, air cargo and general aviation. Pertinent Federal Aviation Regulations governing airport operations will be emphasized.

**AV 107B Airline Flight Operations 3 (3,0,0,0)**

An introduction to the operational aspects of airline flight operations. Topics include management functions, organizational structure and personnel requirements with regard to airlines, commuter, air-taxi and instructional flight operations. The complex area of operational techniques utilized by airlines, and business strategies airlines face today will be discussed. Pertinent Federal Aviation Regulations governing airline operations will be emphasized.

**AV 110B Private Pilot Ground School 4 (4,0,0,0)**

A study of aviation fundamentals including principles of flight, aircraft and engine operations, weather, navigation and radio communication as required by FAA (Federal Aviation Administration) regulations. This course will prepare the student to take the FAA Private Pilot Airplane Certificate Knowledge exam.

**AV 111B Private Pilot  
Certification Lab 3 (0,6,0,0)**

Students will begin flight training with an FAA (Federal Aviation Administration) Certificated Flight Instructor. Training will include all skills necessary to pass the FAA Private Pilot Airplane Certificate Practical Exam. This course is designed for AAS Aviation Technology degree seeking majors.

Prerequisite: Instructor approval or Corequisite: AV 110.

**AV 112B Human Factors and Safety 3 (3,0,0,0)**

This course will study the effects of human factors on pilot performance and safety including education and training, the aviation environment and pilot mental and physical condition.

**AV 114B Advanced Navigation  
and Flight Planning 3 (2,2,0,0)**

Flight planning and navigation concepts are mastered through application of Federal Aviation Regulations pertaining to airline flight systems operations. Various components of flight plans, navigation systems, dispatch releases, aeronautical charts, weather conditions, operating limitations, and performance factors for aircraft will be implemented.

Prerequisite: AV 110B.

**AV 115B Aviation Meteorology 3 (3,0,0,0)**

This course deals with atmospheric conditions and the effect on aeronautical applications. Weather development patterns and observations from the pilot's point of view will be emphasized.

**AV 210B Instrument Ground School 4 (4,0,0,0)**

Aspects of instruction will include the aeronautical knowledge areas as determined by the Federal Aviation Administration for the Instrument Rating – Airplane. This course will prepare eligible students to take the FAA Instrument Rating – Airplane Knowledge Exam. Course may be taken as an IFR refresher or to enhance knowledge of IFR flight operations.

Prerequisite: AV 110B.



**AV 212B Instrument Certification Lab 3 (0,6,0,0)**

Students will begin flight training with an FAA Certificated Flight Instructor - Instrument. Training will include all skills necessary to meet eligibility requirements for the FAA Instrument Airplane Practical Exam. This course is designed for AAS Aviation Technology degree seeking majors.

Prerequisite: AV 111B.

**AV 214B Aerodynamics 3 (3,0,0,0)**

Study of basic aerodynamic theory. Covers wing design and theory, lift analysis and drag criteria, and basic performance criteria calculations. The effects of low and high speed flight configurations are examined.

Prerequisite: AV 110B.

**AV 215B Crew Resource Management 3 (3,0,0,0)**

This course will cover the common concepts and application of Crew Resource Management (CRM) as it applies to professional pilots, general aviation pilots, cabin crews, maintenance personnel, aircraft dispatchers, and air traffic controllers will be studied, emphasizing the human interface and accompanying interpersonal activities that involve decisions required to operate a flight safely. Topics such as risk assessment, management, error prevention and mitigation, and automation issues will be studied, using case studies, accident analysis and practical application exercises.

**AV 220B Air Transportation 3 (3,0,0,0)**

This class surveys the regulations of the aviation industry at the state, federal, and international levels. Historical events and how they impact current and past legislation will be studied. Students will also investigate the impact of legislation and treaties on the aviation industry, such as deregulation, international alliances and agreements.

**AV 240B Advanced Aircraft Systems 3 (3,0,0,0)**

Course covers the different types of commercial aircraft, and their various operational, instrumentation, electrical, electronic, fuel, and mechanical systems. The course will also cover principles of operations, and commercial aircraft structure and avionics. Mathematical calculations for determining large aircraft weight and balance will also be presented.

Prerequisite: AV 110B.

**AV 250B Commercial Pilot Ground School 4 (4,0,0,0)**

This course prepares students to take the FAA Commercial Pilot Knowledge Exam. Aspects of instruction will include the aeronautical knowledge areas as determined by the Federal Aviation Administration for the Commercial Pilot Certificate.

Prerequisite: AV 110B.

**AV 251B Commercial Pilot Certification Lab 3 (0,6,0,0)**

Students will begin flight training with an FAA (Federal Aviation Administration) authorized Flight Instructor. Training will include all practical skills necessary to meet eligibility requirements for the FAA Commercial Pilot Certificate. This course is designed for AAS Aviation Technology degree seeking majors.

Prerequisite: AV 212B.

**Biology****BIOL 095 Basic Biology 3 (3,0,0,0)**

An introduction to the principles of math, chemistry, cell biology, energetics, and molecular genetics designed to prepare students for college freshman biology. The application of study skills to biology courses will also be emphasized. This course is non-transferable.

**BIOL 101 Biology for Non-Majors 4 (3,3,0,0)**

An introduction to biology with emphasis on human concerns. Topics include aspects of organism structure, function, ecology, and evolution which provide a biological perspective for issues facing modern society. Intended to satisfy the lab science general education requirement.

**BIOL 103 Biology Laboratory 1 (0,3,0,0)**

Prerequisite: Entry by departmental authorization only.

**BIOL 112 Introduction to Animal Behavior 3 (3,0,0,0)**

Introduction to invertebrate and vertebrate animal behavior, its description, role, genetic and evolutionary basis, and methods of study. Designed as a general education, non-majors course.

**BIOL 113 Life in the Oceans 3 (3,0,0,0)**

An introduction to the environment and inhabitants of the sea.

**BIOL 114 DNA, Gene Technology, And You 3 (3,0,0,0)**

This course is an introduction to genetics with emphasis on issues facing modern society. Topics covered include: the structure and function of DNA; the complexities of heredity; the purposes of cloning, genetic modification, and artificial selection; and the role of natural selection in the modification of population genetics. This course is intended to satisfy the general education requirement for a non-lab science.

**BIOL 116 Natural History 3 (3,0,0,0)**

This course explores the ways living organisms survive in nature and demonstrates how each organism illustrates the principles of ecology and evolution.

**BIOL 120 Plants and People 3 (3,0,0,0)**

An introduction for non-biology majors to the social, cultural, and economic role of useful and harmful plants and plant products in modern society. Consideration is given to the origin, history and human value of selected plants, especially those used for food, medicine and industrial raw materials, or in religious rites.



**BIOL 121 Human Nutrition 3 (3,0,0,0)**

Description of the nature and role of carbohydrates, lipids, proteins, water, vitamins and minerals in the human body. Energy relationships and various controversies in nutrition are examined, as well as relationships between nutrition, health and disease. (Same as NUTR 121.)

**BIOL 122 Desert Plants 3 (2,3,0,0)**

Desert plants is an investigation of the desert of the southwest United States. Students will evaluate plant community distributions and characterize common species. Students will explore adaptations to aridity and the nature, origin, and occurrence of arid environments.

**BIOL 189 Fundamentals of Life Science 4 (3,3,0,0)**

Biology 189 is a comprehensive course which serves to build a cornerstone of biological knowledge for students in health science majors, and fulfills the prerequisite for anatomy and physiology, and microbiology courses. The topics include biochemistry, cell structure and function, cellular metabolism, physiology, genetics, and gene expression. Biology 189 is a 4-credit, lecture and lab course, and includes 3 hours of lecture and 3 hours of lab per week. Biology 189 has a prerequisite of ENG 100 or ENG 101 or ENG 113 with a C- or better; and a pre/co-requisite of MATH 104B or MATH 116 or higher (excluding MATH 122 and MATH 123) with a C- or better. The Biological Sciences Department HIGHLY RECOMMENDS that students complete their required Math course before enrolling into Biology 189.

Prerequisite: ENG 100 or ENG 101 or ENG 113 with a grade of C- or higher; and MATH 104B or MATH 116 or higher (except MATH 122, 123) with a grade of C- or better.

**BIOL 196 Principles of Modern Biology I 4 (3,3,0,0)**

A study of the basic characteristics of living systems including the chemical and physical structure of cells, enzyme mechanics, metabolism, genetics, molecular biology principles and techniques, and evolution. This course is designed for science, biological science and preprofessional majors.

Prerequisite: ENG 100 or 101 or 113; and MATH 124 or 126 or above; all with a grade of C- or better.

**BIOL 197 Principles of Modern Biology II 4 (3,3,0,0)**

A survey of major groups of organisms presented in an evolutionary context, including natural selection, biodiversity, structure and function, reproduction, physiology, and ecology.

Prerequisite: BIOL 196.

**BIOL 202 General Botany 4 (3,3,0,0)**

BIOL 202 is an introduction to the development, anatomy, physiology, taxonomy, diversity and evolutionary relationships of the major plant groups and plant-like organisms. The topics include plant cell structure and function, cellular metabolism, physiology, nutrition, tissue systems, morphology, growth and development, environmental factors, ecology and mechanisms of evolution.

Prerequisite: BIOL 122 with a grade of C or higher; or BIOL 189 with a grade of C or higher; or BIOL 196 with a grade of C or higher; or Instructor approval.

**BIOL 208 Introduction to Human Genetics 3 (3,0,0,0)**

Non-majors, general education course covering hereditary principles applied to human inheritance and their implications for human affairs. Study of selected examples of human traits.

Prerequisite: BIOL 101 or higher.

**BIOL 211 Introduction to Field Biology 4 (3,3,0,0)**

An introduction to field safety, navigation, species, diagnosis, data collection, survey techniques, and regulations associated with field biology. Outdoor and off-campus field work required.

Prerequisite: ANTH 101 or 102 or 202; or BIOL 116 or 122 or 189 or 196 or 220; or ENV 101 or 220; or GEOG 103; or GEOL 101 or 105; or Instructor approval.

**BIOL 214 Molecular Processes 3 (3,0,0,0)**

An introduction to the concepts of DNA replication, transcription, translation, the control of gene expression and DNA recombinant technologies. Will also include comprehensive study of both prokaryotic and eukaryotic genomes, gene expression and molecular techniques for clinical diagnosis and research. Emphasis on current techniques to assess genomes, and gene expression.

Prerequisite: BIOL 196.

**BIOL 220 Introduction to Ecological Principles 3 (3,0,0,0)**

An introduction to the major principles and underlying processes of organismal, population, community, and ecosystem ecology. (Same as ENV 220.)

**BIOL 223 Human Anatomy and Physiology I 4 (3,3,0,0)**

A detailed study of the anatomy and physiology of human cells and tissues and the integumentary, skeletal, muscular, and nervous systems. Designed for health science majors.

Prerequisite: BIOL 189 with a Grade of C or better.

**BIOL 224 Human Anatomy and Physiology II 4 (3,3,0,0)**

A detailed study of the anatomy and physiology of the human body. Topics include the circulatory, respiratory, digestive, urinary, endocrine, and reproductive systems. This course is designed for health science majors.

Prerequisite: BIOL 223 with a C or better.





**BIOL 251 General Microbiology 4 (3,3,0,0)**

Survey of the distribution, morphology and physiology of microorganisms in addition to skills in aseptic procedures, isolation and identification. Topics in microbial genetics, human disease and immunology are also explored. Recommended for all allied health and preprofessional majors.

Prerequisite: BIOL 189 with a Grade of C or better.

**BIOL 251H General Microbiology - Honors 4 (3,3,0,0)**

Microbiology is targeted toward specific student interests in microbiology, cell, molecular and integrative microbiology, and those with backgrounds in biology and chemistry. The course provides in-depth coverage of microbial (prokaryotic and eukaryotic cells and viral) structure, function, genetics, diversity, ecology, pathogenesis and immunology, with emphasis on microbial evolution and phylogeny, unique microbial metabolic pathways, molecular mechanisms and human-microbe interactions. Three hours lecture and three hours laboratory.

Prerequisite: BIOL 196 and CHEM 121 and 122 all with a grade of C or better.

**BIOL 299 Selected Topics in Biology 1-4 (0,3-12,0,0)**

Covers selected topics of interest to students in the biological sciences.

Prerequisite: Instructor approval.

**BIOL 325 Molecular Diagnostics 3 (3,0,0,0)**

In depth discussion and analysis of molecular biological techniques for research, forensics, and clinical diagnosis. Diagnostics for diseases, cancer, and disorders will be examined.

Prerequisite: BIOL 196 or 197 with a grade of C or better; and CHEM 110 or higher with a grade of C or better.

**Business Management****BUS 101 Introduction to Business 3 (3,0,0,0)**

Designed to build a business foundation and to give students a broad background of modern business principles. Course will introduce students to the business profession by incorporating and integrating business knowledge and information across departmental curriculum lines to enhance the overall comprehension of the business world. Class projects are assigned to promote team work among students to use their own capabilities in utilizing all educational aspects.

**BUS 102B Entrepreneurship and Innovation 3 (3,0,0,0)**

Practical overview of business start up, planning, preparation, and risk assessment. Concentration on business plan formulation including acquiring financing, personnel selection, sales and marketing.

**BUS 106B Business English 3 (3,0,0,0)**

Utilizes previous English language experience to train students in the basic skills of business communication in both oral and written form. Excellent foundation for Business Letters/Reports.

Prerequisite: ENG 100 or 101 with a grade of C or better.

**BUS 107 Business Speech Communication 3 (3,0,0,0)**

Designed to provide students with the opportunity to develop speaking and listening skills necessary for successful on-the-job communications. Emphasizes interpersonal and organizational communications such as interviewing, small group dynamics and oral presentations.

**BUS 108 Business Letters and Reports 3 (3,0,0,0)**

Designed to develop conceptual skills in all types of written and oral business communications, furnish practical applications of these skills, and acquaint the student with tools and techniques required to communicate in the real world of business.

Prerequisite: ENG 100 or 101 with a grade of C or better.

**BUS 109B Business Mathematics 3 (3,0,0,0)**

Fundamental mathematical processes for the business person and the consumer are reviewed. Discounts, commissions, depreciation, overhead and interest rates are studied.

**BUS 271 Introduction to Employment Law 3 (3,0,0,0)**

The study of federal and state labor law and employment law and how it impacts employers, employees and the American workforce.

**BUS 272 Legal Environment 3 (3,0,0,0)**

Legal Environment of Business examines the framework of the American legal system from a business perspective with a substantive and analytical focus on legal, regulatory, and ethical issues. These issues primarily impact business, government, managers, and employees of both privately and publicly held business entities and government.

**BUS 273 Business Law I 3 (3,0,0,0)**

This course provides business students a survey of the principle areas of business law. It explores the relationship between business and the law with respect to the following topics: torts, crimes, intellectual property, and contracts. Students also explore the relationship between business and the law with respect to constitutional law. Students gain a working knowledge of practical rules of law and legal terminology as well as legal solutions for business-related issues.



**BUS 274 Business Law II 3 (3,0,0,0)**

This course provides business students with a survey of the principle areas of business law. It explores the relationship between business and the law with respect to the following topics: contracts, agency, employment law and immigration law, consumer protection, environmental protection, and antitrust law. Students also explore the relationship between business and the law with respect to government regulation. Students gain a working knowledge of practical rules of law and legal terminology as well as legal solutions for business-related issues.

**BUS 275B Fundamentals of International Business 3 (3,0,0,0)**

This course will introduce the student to the exciting world of International Business. It will examine the following: direct focus on the development of management skills in handling problems of multinational business; analysis of problems stemming from the movement of goods, services, human resources, technology, finance, and ownership across national boundaries.

Prerequisite: BUS 101.

**BUS 280B Legal Aspects of International Business 1-3 (1-3,0,0,0)**

An introductory overview of International Law divided into three week topical sections of related business and legal aspects designed to emphasize international imports and exports, treaties and remedies. The student may select all or one of the sections; one credit per section.

**BUS 290B Internship in Business 3 (0,0,0,15)**

A course designed wherein students will apply knowledge to real on-the-job situations in a program designed by a company official and a faculty advisor to maximize learning experiences. Available to students who have completed the majority of their general education requirements and have completed at least 21 credits of special program requirements and have a 3.0 GPA in their special program required courses. Contact the appropriate faculty member for the application, screening and required skills evaluation.

**Computer Aided Drafting and Design****CADD 100 Introduction to Computer Aided Drafting 3 (2,3,0,0)**

Student will be introduced to the basic operation of a CADD workstation using AutoCAD software in a Microsoft Windows environment to produce two dimensional drawings.

Prerequisite: IS 100B or 101 or Instructor approval.

**CADD 105 Intermediate Computer Aided Drafting 3 (2,3,0,0)**

This course is a continuation of CADD 100, introducing the student to the automated features of a CADD workstation using industry standard CADD software to produce two-dimensional design drawings. Additional lab hours are required.

Prerequisite: CADD 100.

**CADD 140 Technical Drafting I 3 (2,3,0,0)**

This course will introduce the students to manufacturing situations according to drafting industrial standards. Computer aided drafting techniques are used to solve drafting problems.

Prerequisite: CADD 100 or Instructor approval.

**CADD 141 Technical Drafting II 3 (2,3,0,0)**

Introduces the student to 3D modeling, additive manufacturing and uses technical drafting to produce manufacture drawings for conceptual designs.

Prerequisite: CADD 140.

**CADD 245 Solid Modeling and Parametric Design 3 (2,3,0,0)**

Provides instruction in solid modeling using SolidWorks software to create solid model parts, assemblies, and working drawings.

Prerequisite: CADD 100 or Instructor approval.

**CADD 246B Solid Modeling and Parametric Design II 3 (2,3,0,0)**

This course will provide advance training and instruction by using parametric solid modeling software to create solid model parts, assemblies, and working drawings. This course will prepare students for the SolidWorks certification exam.

Prerequisite: CADD 245.

**CADD 250 CAD Systems Management 3 (2,3,0,0)**

Office management of Computer Aided Design and Drafting (CADD) personnel within an office environment including hardware and software selections, back-up procedures, and office standards, policies, and security.

Prerequisite: CADD 105 and COM 115.

**CADD 299B CADD Capstone 3 (2,3,0,0)**

This capstone course will assess the student's rate of progress in the CADD Technology program to include: 2D drafting with CAD, 3D solid modeling, 3D printing, and setting drafting standards. Graded Pass/Fail.

Prerequisite: Program Director approval.

**Counseling and Guidance Personnel Services****CAPS 123 Career Development 1-3 (1-3,0,0,0)**

A beginning course in life and career planning. Offered to assist participant to make informed occupational choices. Explore abilities, interests, values, aptitudes and occupational needs to assist in life planning.

**CAPS 125B Job Search Techniques 1-3 (1-3,0,0,0)**

This course will present techniques for use in the job hunting process. Résumé writing, research strategies, skills identification plus practice interview techniques will be utilized. May be repeated 3 times.



**CAPS 126B Parenting Skills 1-3 (1-3,0,0,0)**

This course meets the need of CSN students who are single parents, blended families and many times for local and federal requirements in divorce mediation. May be repeated up to a maximum of 3 credits.

**CAPS 127 College Success for Hispanic Leaders 2 (2,0,0,0)**

The goal of this course is to close the gap between the college completion rates of Hispanics compared to non-Hispanics. Problems unique to Hispanic student achievement will be covered including study skills techniques, short and long term college planning, self-discovery and development of cross-cultural competency in leadership style.

**CAPS 128 Foundations of Success for International Students 1 (1,0,0,0)**

Foundations of Success for International Students is designed to assist students with F-1 visas to overcome the difficulties often experienced with achieving academic success in an unfamiliar environment. Particular attention will be paid to achieving academic success in an unfamiliar environment, how to understand the complex relationship between academics and regulatory issues, and techniques for successfully managing cultural adjustments issues.

**CAPS 129B Assertiveness Techniques 1-3 (1-3,0,0,0)**

This class will explain the difference between passive, aggressive and assertive actions and help the student to gain self-esteem and confidence when communicating with others. May be repeated up to a maximum of 3 credits.

**CAPS 130 Stress Management Techniques 1-3 (1-3,0,0,0)**

Surveys personal lifestyles to identify areas of handling stress and tension that occurs in daily life. Techniques will be taught that will help to cope with anxiety producing situations. May be repeated up to a maximum of 3 credits.

**Civil Engineering****CEE 241 Statics 3 (3,0,0,0)**

Engineering analysis of concentrated and distributed force systems at equilibrium; analysis of structures, beams and cables, friction, virtual work, fluid statics, shear and moment diagrams.

Prerequisite: PHYS 180 and MATH 182.

**Computer Forensics****CF 117B Computer Forensics 3 (3,0,0,0)**

This course introduces the student to the preservation, identification, extraction, documentation and interpretation of crime related computer data. This course will include both lecture and demonstration of investigative techniques. Student should have basic computer knowledge.

**CF 118B Internet Forensics 3 (3,0,0,0)**

This course introduces the student to network intrusion analysis. It will cover DNS, ICMP, and fragmentation intrusion techniques and the use of TCP dump and SNORT in intrusion detection and prevention.

Prerequisite: CIT 112B

**CF 119B Introduction to Electronic Crime for Law Enforcement 3 (3,0,0,0)**

This course is an introduction to the investigation of high-tech crime. It will present the tools and methods used by criminals in identity theft, financial crimes, drug trafficking, crimes against children, hacking, terrorism and other electronic crimes. It will also include high-tech intelligence gathering methods and legal considerations, including ECPA, pen/trap orders, CALEA, and Title III wire taps.

**CF 124B Digital Crime Investigation 3 (3,0,0,0)**

Digital evidence plays a role in a wide range of crimes. The purpose of this course is to educate students about digital evidence and computer crime. It explains how computers are used in crimes, how they can be used as a source of evidence, relevant legal issues, deductive criminal profiling, criminal motivations, and investigative techniques.

**CF 217B Advanced Computer Forensics 3 (3,0,0,0)**

This course builds upon the skills learned in Computer Forensics. It includes lecture on advanced computer forensics topics and demonstration and practice in using computer forensics tools to analyze and reconstruct evidentiary data.

Prerequisite: CF 117B.

**CF 250B Mobile Device Forensics 4 (3,2,0,0)**

This course provides the fundamental knowledge and skills needed to investigate data that can be found on basic cell phones, smart-phones, and GPS devices. It includes lecture on mobile device forensics topics as well as demonstration and practice in using mobile device forensic tools to extract and analyze evidentiary data.

Prerequisite: CF 117B.

**Chemistry****CHEM 103 Preparatory Chemistry 3 (3,0,0,0)**

Serves as a preparation for CHEM 121. Introduces general principles and terminology in chemistry to students with poor chemistry backgrounds. Exercises aimed at developing problem solving skills. Students should have taken or have concurrent enrollment in MATH 126 or higher to prepare for General Chemistry I.

Prerequisite: MATH 096 or 124 or higher.



**CHEM 105 Chemistry, Man and Society 3 (3,0,0,0)**

A survey of basic ideas in chemistry for non-science majors. Explores chemistry at work in everyday life. Investigates structure and change in the real world.

**CHEM 106 Beginning Chemistry Laboratory 1 (0,3,0,0)**

Laboratory exercises designed to illustrate material discussed in CHEM 105. May be used in partial fulfillment of the General Education Core requirement.

Prerequisite: CHEM 105 (or concurrent enrollment in CHEM 105).

**CHEM 107 Food Chemistry 4 (3,3,0,0)**

An introduction to composition of food including water, nutrients (carbohydrates, proteins, fats), food additives, flavoring and the changes they undergo during processing and storage. Using concepts of the scientific method, students will also examine the chemistry of minerals, vitamins and food coloring and explore the interaction of these items in the human body. This course is designed for non-science majors with little or no background in chemistry.

**CHEM 108 Introduction to Chemistry 4 (4,0,0,0)**

Survey of elementary principles of general chemistry, organic chemistry, and biochemistry, and their application to living systems. For non-science majors and students majoring in nursing and allied health.

Prerequisite: High school chemistry or Instructor approval.

**CHEM 110 Chemistry for Health Sciences I 4 (3,3,0,0)**

Survey of general chemistry designed for Allied Health majors and non-science majors. Emphasis on the foundation needed for the study of organic and biochemistry.

Prerequisite: MATH 120 or 124 or above.

**CHEM 111 Chemistry for Health Sciences II 4 (3,3,0,0)**

Survey of organic and biochemistry designed for Allied Health majors, and non-science majors. Application of chemical principles leading to an understanding of how living organisms function.

Prerequisite: CHEM 110.

**CHEM 121 General Chemistry I 4 (3,3,0,0)**

An investigation of the fundamental structure of matter and chemical terminology. Introduces topics such as solution chemistry, thermochemistry and gas laws. Designed for science and pre-professional majors. Students enrolled in CHEM 121 should have taken or have concurrent enrollment in MATH 127 or MATH 128.

Prerequisite: CHEM 103 or 110; or a passing score on the Chemistry Placement Exam.

**CHEM 122 General Chemistry II 4 (3,3,0,0)**

An application of chemical principles to inorganic systems. Emphasis on thermodynamics, equilibrium and kinetics.

Prerequisite: CHEM 121; and MATH 127 or 128.

**CHEM 220 Introductory Organic Chemistry 4 (3,3,0,0)**

Introduction to the properties of organic functional groups and to elementary laboratory techniques.

Prerequisite: CHEM 111 or CHEM 122.

**CHEM 241 Organic Chemistry I 4 (3,3,0,0)**

Intensive introduction to the chemistry of carbon and its functional groups, including the structure and behavior of its molecules.

Laboratory emphasis is on natural processes.

Prerequisite: CHEM 122.

**CHEM 242 Organic Chemistry II 4 (3,3,0,0)**

Continuation of CHEM 241, covering simple and poly-functional compounds, with emphasis on syntheses of organic molecules.

Laboratory emphasis on natural processes and qualitative analysis.

Prerequisite: CHEM 241.

**CHEM 292 Selected Topics in Chemistry 1-4 (0,3-12,0,0)**

Covers selected topics of interest to students in chemistry.

Prerequisite: CHEM 122 and Instructor approval.

**Chinese****CHI 101B Conversational Chinese I 3 (3,0,0,0)**

A course emphasizing spoken communication. Speaking skills, oral listening skills, reading and writing skills explored. A vocabulary of Chinese-English words developed.

**CHI 102B Conversational Chinese II 3 (3,0,0,0)**

A continuation of CHI 101B, Conversational Chinese I.

Prerequisite: CHI 101B.

**CHI 111 First Year Chinese I 4 (4,0,0,0)**

The development of language skills in listening speaking and writing. Oral emphasis.

**CHI 112 First Year Chinese II 4 (4,0,0,0)**

A second semester course designed to continue and improve skills learned in CHI 111.

Prerequisite: CHI 111.

**CHI 211 Second Year Chinese I 3 (3,0,0,0)**

A continuation of CHI 112 and intended for non-native Chinese speakers who wish to study Chinese including listening, speaking, reading, and writing.

Prerequisite: CHI 112.



**CHI 212 Second Year Chinese II 3 (3,0,0,0)**

A continuation of CHI 211 and includes structural review and development of the intermediate level of conversation, reading, and writing.

Prerequisite: CHI 211.

### Computing and Information Technology

**CIT 095 Personal Computer Basics 3 (3,0,0,0)**

This course provides a hands-on, activity based learning experience that covers computer terminology, working with files, and protecting against computer viruses. It explores the Internet, teaches how to email and share pictures via email, and how to do searches. Students will create a document with word processing software and a basic budget with spreadsheet software. An overview of other computer applications such as data bases and presentations will be included. Graded Pass/Fail.

**CIT 112B Network+ 3 (3,0,0,0)**

Course teaches knowledge and skills required to troubleshoot, configure, and manage common network wireless and wired devices. Major topics include establishing basic network design and connectivity, understanding and maintaining network documentation, identifying network limitations and weaknesses, and implementing network security, standards, and protocols. Course prepares students for the CompTIA Network+ certification exam.

**CIT 114B IT Essentials 4 (3,2,0,0)**

Course teaches knowledge and skills required to assemble and maintain personal computers and peripheral devices. Major topics include assembling components, installing software, connecting to networks, troubleshooting and repair, customer support, imaging and virtualization. Assists student preparation for CompTIA A+ certification. Course content is a combination of content from former CIT 110 and CIT 111 courses.

**CIT 118B Network Security Management 3 (3,0,0,0)**

Students will learn about network and information security management topics, including Information Security Common Body of Knowledge (ISCBK), threat techniques, and protective techniques through a technical approach. Risk analysis, contingency planning, categories of security devices, password techniques, encryption, network protocol, and intercept devices are emphasized as part of the appropriate ISCBK domain.

**CIT 119B Business Data Networks 3 (3,0,0,0)**

This is an introductory course that looks at various types of data networks used in many organizations. The students will learn about LANs, WANs, OSI and TCP/IP models, IP addressing, dial-up devices, security, network applications, and network management.

**CIT 130 Beginning Java 3 (3,0,0,0)**

An introduction to the Java programming language. Covers the language's control structures, Object Oriented Concepts, simple graphical displays, file input/output, and error handling.

Prerequisite: IS 115 or Instructor approval.

**CIT 131 Beginning C Programming 3 (3,0,0,0)**

An introduction to the C programming language. Topics will include C data types, input, output, operators, decision and looping statements, functions, and the C library.

Prerequisite: IS 115 or Instructor approval.

**CIT 132 Beginning Visual Basic 3 (3,0,0,0)**

An introduction to the Visual Basic.NET programming language. Topics will include problem solving, Visual Basic.NET Objects, control structures, input, output, events, methods, functions, and display of data.

Prerequisite: IS 115 or Instructor approval.

**CIT 133 Beginning C++ 3 (3,0,0,0)**

An introduction to the C++ programming language. Topics will include C++ data types, input, output, operators, decision and looping statements, functions and classes.

Prerequisite: IS 115 or Instructor approval.

**CIT 134B Beginning C# Programming 3 (3,0,0,0)**

An introduction to the C# programming language. Use of the C# programming language for solving problems. Covers C#'s control structures, Object Oriented Concepts, simple graphical displays, file input/output, and error handling.

Prerequisite: IS 115 or Instructor approval.

**CIT 137B Special Topics - Programming Language 3 (3,0,0,0)**

Special topics course that explores a programming language at an introductory level. Topics will include the language's data types, input, output, operators, decisions and looping statements, functions and other topics specific to the language. This course may be repeated by students who wish to explore up to three different languages, for a maximum of 9 credits.

Prerequisite: IS 115 or Instructor approval.

**CIT 151 Beginning Web Development 3 (3,0,0,0)**

An introduction to the creation and styling of websites using HTML and CSS. Websites will include text, graphics, and multimedia.

Prerequisite: IS 100B or 101; or Instructor approval.



**CIT 152      Web Script  
Language Programming      3 (3,0,0,0)**

An introduction to client-side scripting to control the appearance and capabilities of webpages. JavaScript will be used to improve navigation of web sites, to validate data submitted in through forms, to add functionality to web pages, and to improve the user experience. A discussion of libraries, such as JQuery, will be included.

Prerequisite: IS 115 and CIT 151; or Instructor approval.

**CIT 154B      Dynamic Web Applications      3 (3,0,0,0)**

Hands-on exploration of Web applications such as wikis, blogs, syndication methods, podcasting, social networking, virtual worlds, online video and image sharing, and web based office applications. In-depth examination of these increasingly pervasive Web 2.0 applications and of their implications and potential for many career fields. Students projects showcased in electronic portfolios (optional).

Prerequisite: IS 100B or 101; or Instructor approval.

**CIT 160      Introduction to  
Computer Security      3 (3,0,0,0)**

Principles and practices of protecting valuable data from loss, corruption and compromise. Emphasis on the needs of home computer users and small businesses. Topics include data backup, risk assessment, network and internet security and e-commerce.

Prerequisite: IS 100B or 101; or Instructor approval.

**CIT 173      Introduction to Linux      3 (3,0,0,0)**

An introduction to the Linux Operating System. Topics include Linux origins, file system, user commands and utilities, graphical user interfaces, editors, manual pages and shells. Students are expected to have basic computer literacy prior to enrolling in this course.

**CIT 174      Linux System Administration      3 (3,0,0,0)**

This course covers a variety of topics: installing and configuring a Linux Server, managing users and groups, securing the system and much more. Students should complete CIT 173 or have a knowledge of Linux fundamentals before attending this course.

**CIT 176      Linux Shell Programming      3 (3,0,0,0)**

An introduction to the Linux shell, shell scripts, shell programming, and utilities. Topics will include the Linux Bash, Korn, and C shells; regular expressions; and grep, sed, and awk utilities. Students will learn to automate system administration tasks with shell scripts, programs, and Linux utilities.

**CIT 180      Database Concepts and SQL      3 (3,0,0,0)**

Basic principles of data modeling and relational database design. Hands-on learning of Structured Query Language (SQL).

Prerequisite: IS 115 or Instructor approval.

**CIT 181      Introduction to Oracle      3 (3,0,0,0)**

The fundamentals of the Oracle software system. It will include hands-on experience with Oracle's implementation of SQL, its procedural extension of SQL (PL/SQL), and its development tools, such as SQL\*Plus and Oracle Application Express.

Prerequisite: CIT 180 or Instructor approval.

**CIT 183      Database Administration      3 (3,0,0,0)**

An introduction to the primary responsibilities of a database administrator. Learn to install a DBMS, such as SQL Server or Oracle; to manage database objects to monitor performance; to manage data storage; to oversee database security and user access; to ensure database connectivity; and to plan for backup and recovery.

Prerequisite: CIT 180 or Instructor approval.

**CIT 184      Oracle PL/SQL  
Programming I      3 (3,0,0,0)**

The basics of writing Oracle PL/SQL program units. PL/SQL primitive data types, control structures, cursors, procedures, functions, packages, and triggers will be covered.

Prerequisite: CIT 180 or Instructor approval.

**CIT 201B      Word Certification  
Preparation      3 (3,0,0,0)**

Comprehensive coverage of basic and advanced features of Microsoft Word including, but not limited to, the set of skills on the Microsoft's certification exams for Word.

Prerequisite: IS 100B or IS 101.

**CIT 202B      Excel Certification  
Preparation      3 (3,0,0,0)**

Comprehensive coverage of basic and advanced features of Microsoft spreadsheet software including, but not limited to, the set of skills on Microsoft's certification exams for Excel.

Prerequisite: IS 100B or IS 101.

**CIT 203B      Access Certification  
Preparation      3 (3,0,0,0)**

Comprehensive coverage of basic and advanced features of database management software including, but not limited to, the set of skills on Microsoft's certification exams for Access.

Prerequisite: IS 115 or Instructor approval.

**CIT 211      MCITP/MCTS Windows  
Workstation OS      3 (3,0,0,0)**

The Core A Operating systems course prepares student to prove their expertise with desktop, server and networking components. Core A consists of the required areas of study mandated by Microsoft for their MCITP/MCTS certification in a client operating system. Students should have basic computer skills.



**CIT 212 MCITP/MCTS  
Windows Server OS 3 (3,0,0,0)**

The Core B Advanced Operating systems course prepares students to prove their expertise with server operating systems and networking components. Core B consists of the required areas of study mandated by Microsoft to complete their MCITP/MCTS requirements. Students should have basic computer skills.

**CIT 213 MCITP/MCTS  
Network Infrastructure 3 (3,0,0,0)**

The Core C operating systems course prepares student to prove their expertise with desktop, server and networking components. Core C consists of the required areas of study mandated by Microsoft in order to complete their MCITP or MCTS certification requirements.

Prerequisite: CIT 112B.

**CIT 214 MCITP Application  
Infrastructure 3 (3,0,0,0)**

The Core D course prepares students to prove their expertise with desktop, server and networks. This course consists of the required areas of study mandated by Microsoft in order to complete their MCITP Enterprise Administrator core requirements.

Prerequisite: CIT 112B.

**CIT 215 MCITP Active Directory 3 (3,0,0,0)**

This course prepares students to prove their expertise with desktop, server and networks. This course consists of the required areas of study mandated by Microsoft in order to complete their MCITP core requirements.

Prerequisite: CIT 112B.

**CIT 216 Server+ 3 (3,0,0,0)**

An intense class to prepare mid- to upper-level technicians, responsible for server hardware functionality, to take the CompTIA Server+ certification exam. The Server+ certification credential validates advanced-level technical competency of server issues and technology, including installation, configuration, upgrading, maintenance, troubleshooting, and disaster recovery. Students will learn how to install, configure, diagnose, and troubleshoot server hardware and network operating systems.

Prerequisite: CIT 112B Network+ or associated certification.

**CIT 217 Security+ 3 (3,0,0,0)**

The purpose of this class is to prepare professionals with at least two years of networking experience and who possess a thorough knowledge of TCP/IP to take and pass the CompTIA Security+ certification exam. Topics will include general security concepts, communications security, infrastructure security basics of cryptography, and operational/organizational security.

Prerequisite: CIT 112B or associated certifications.

**CIT 218 Microsoft Special Topics 3 (3,0,0,0)**

Special topics on computers and networking equipment, OS, and administration will be covered. This course is designed specifically for students pursuing MCITP or MCTS certifications or for those desiring additional learning after achieving a Microsoft Advanced Certification. This course can be repeated to a maximum of 9 credits with different topics.

Prerequisite: CIT 112B or Instructor approval.

**CIT 222B Information Storage  
Management 3 (3,0,0,0)**

Course teaches the architectures, features, and benefits of intelligent storage systems; storage networking technologies such as FC SAN, IP SAN, NAS, and object-based and unified storage; business continuity solutions such as backup and replications; information security and management; and Cloud computing. Prepares students for EMC certification.

Prerequisite: CIT 112B and 211.

**CIT 230 Advanced Java 3 (3,0,0,0)**

An advanced course in the Java programming language. Provides specific examples of applications for which Java is designed.

Prerequisite: CIT 130 or Instructor approval.

**CIT 231 Advanced C Programming 3 (3,0,0,0)**

An advanced course in the C programming language. Topics will target problem solving using advanced methods in C including structures, arrays, pointers, sequential and direct access files in the C language.

Prerequisite: CIT 131 or Instructor approval.

**CIT 232 Advanced Visual Basic 3 (3,0,0,0)**

A continuation of CIT 132. Advanced program structures in Visual Basic.NET. Topics will include accessing external data and development of classes and other applications for which Visual Basic.NET is designed.

Prerequisite: CIT 132 or Instructor approval.

**CIT 233 Advanced C++ 3 (3,0,0,0)**

Advanced data structures and program structures in C++ language. Larger programs and special examples illustrating applications C++ was designed for.

Prerequisite: CIT 133; or CS 135; or Instructor approval.

**CIT 234 Advanced C# Programming 3 (3,0,0,0)**

An advanced course in the C# programming language. Topics will include more advanced features of the language including dynamic data structures, reusable data structures, and use of existing collections.

Prerequisite: CIT 134B or Instructor approval.



**CIT 238B Introduction to Smartphone Application Development 3 (3,0,0,0)**

This course introduces the student to smartphone application development. Students will develop applications that will function on smartphones using a software development kit and the object oriented language appropriate to the target smartphone. Students will use simulation programs to test their applications. This course may be repeated once with different topics.

Prerequisite: CIT 130 or other object oriented programming language; and a basic knowledge of the Mac and or Window operating systems.

**CIT 251 Advanced Web Development 3 (3,0,0,0)**

A continuation of CIT 151. It extends student knowledge and skills with HTML and CSS and introduces additional web-related techniques used to make webpages more engaging and more versatile. Extensible Markup Language (XML) will be used introduced as a way to share data among different systems and applications.

Prerequisite: CIT 151 or Instructor approval.

**CIT 252 Web Database Development 3 (3,0,0,0)**

Design and implementation of interactive, data-driven websites that integrate HTML/CSS, a scripting language (Active Server Pages or PHP), and a database.

Prerequisite: IS 115; and CIT 151; or Instructor approval.

**CIT 260 Systems Analysis and Design 3 (3,0,0,0)**

An examination of systems and their elements and processes. Includes techniques used by systems analysts to determine user requirements and the translation of user requirements into design specifications. Students should have programming experience.

**CIT 263B Project Management 3 (3,0,0,0)**

This course introduces students to the concepts of project management and project management software. Students will practice proper project management principles defined by the Project Management Institute in the PMBOK.

Prerequisite: IS 100B or 101; and either ENG 100 or above with a grade of C or higher; or COM 101 or above with a grade of C or higher; or Instructor approval.

**CIT 274B Ethical Hacking 3 (3,0,0,0)**

Course introduces students to concepts of penetration testing to validate security measures and identify vulnerability. Topics include IT security awareness, data confidentiality, data integrity, legislated privacy policies, and individual and institutional liability. Course also explores methods used by intruders to gain the access to computer resources and methods to prevent/reduce vulnerability.

Prerequisite: CIT 112B and 211 both with a grade of C or better.

**CIT 290 Internship in CIT I 1-3 (0,0,0,5-15)**

Supervised work experience within a selected computer and information technology firm or an information systems department in major corporation. Designed by company official and faculty advisor to apply knowledge to on-the-job situation. Available to students entering their last two semesters of instruction for degree. Contact department for application, screening, and required skills evaluation. This course may be repeated once not to exceed a total of 3 credits.

**CIT 291 Internship in CIT II 1-3 (0,0,0,5-15)**

Supervised work experience within a selected computer and information technology firm or an information systems department in major corporation. Designed by company official and faculty advisor to apply knowledge to on-the-job situation. Available to students entering their last two semesters of instruction for degree. Contact department for application, screening, and required skills evaluation. This course may be repeated once not to exceed a total of 3 credits.

Prerequisite: CIT 290.

**CIT 319 Managing Business Data Networks 3 (3,0,0,0)**

The student examines business information processing systems, including a study of the computer's relationship to the overall business information system and its subsystems. The course stresses the development of an overall framework for analyzing the use of information by organizations. Examples are developed to demonstrate the integrative nature of the information systems through the use of case studies and projects.

Prerequisite: CIT 119B or CSCO 120.

**CIT 330 Designing Virtualized Systems 4 (3,2,0,0)**

Teaches students to install, configure, and manage vSphere, and to install a complete virtual network on VMware Workstation consisting of ESXi hosts, a domain controller, a vCenter server, and an iScsi SAN. This course will help prepare for VCA-DCV and VCP-DCV certifications.

Prerequisite: CIT 112B and 211.

**CIT 363 Advanced Project and Earned Value Management 3 (3,0,0,0)**

This course is a study of advanced Project Management techniques and methodology. Topics include: Earned Value Management, Financial Instruments, Standard Industry Codes, Concepts of Accounting Theory, Budget/Proforma, use of MS Project, Excel, Visio, PowerPoint, and Access to develop, track, and present Project Management data for management review.

Prerequisite: CIT 263B.





**CIT 430      Optimizing  
Virtualized Systems                      4 (3,2,0,0)**

Teaches students to design and administer advanced vSphere solutions including storage, networks, data protection, and replication. Students will also learn to design and maintain DRS clusters, manage vSphere performance, and design and manage business continuity.

Prerequisite: CIT 330 with a grade of C or better.

**CIT 431      Open Source  
Virtualized Systems                      4 (3,2,0,0)**

Teaches students to install, configure, administer, and troubleshoot XenServer, an open-source virtual server. Students will learn how to configure a Provisioning Services host, create and manage vDisks, configure the Distributed Virtual Switch (DVS), and Workload Balancing (WLB). Students will also create and manage Windows virtual machines and the resource pools in which they will be placed.

Prerequisite: CIT 330 with a grade of C or better.

**CIT 454      E-Commerce                              4 (3,2,0,0)**

This course provides advanced level instruction in design and implementation of E-Commerce web sites as used in today's businesses. Topics covered will include how HTML, web scripting, and online databases are used together to create a dynamic and personalized experience for customers of web based businesses.

Prerequisite: CIT 180 with a grade of C or better.

**CIT 470      Information Systems  
Auditing                                      4 (3,2,0,0)**

This course covers the body of knowledge required for Information Systems Auditors. The processes, procedures, and requirements to protect, control, and assure accountability are discussed. Understanding of acquisition and development processes that meet current industry standards are presented. This course will prepare the student to take the Certified Information Systems Auditor (CISA) certification exam.

Prerequisite: CIT 263B with a grade of C or better.

**Clinical Laboratory Science****CLS 130B      Laboratory Procedures for  
Medical Office Assistants              2 (2,0,0,0)**

This course introduces theory and fundamentals of laboratory procedures for personnel working in a physician's office, including clinical significance of laboratory results.

**CLS 131B      Applied Laboratory  
Procedures for Medical  
Office Assistants                          1 (0,3,0,0)**

Practical application of laboratory procedures for personnel working in a physician's office.

Corequisite: CLS 130B.

**CLS 151      Phlebotomy                                  2 (2,0,0,0)**

Study of blood collection methods, with emphasis on patient preparation and identification, sample collection, and selected diagnostic tests performed in the clinical laboratory.

**CLS 152      Applied Phlebotomy                      2 (0,6,0,0)**

Supervised practice of blood collection methods routinely used to collect patient samples for diagnostic testing.

Corequisite: CLS 151.

**CLS 153      Phlebotomy  
Clinical Practicum                          2 (0,0,8,0)**

A clinical rotation in blood collection and specimen processing techniques.

Prerequisite: CLS 151 and 152.

**CLS 161      Urinalysis and Body Fluids              1 (1,0,0,0)**

Theory and practical application of the analysis of urine and other body fluids.

Prerequisite: Acceptance into CLS program.

**CLS 162      Applied Urinalysis  
and Body Fluids                              1 (0,3,0,0)**

Analysis of urine and other body fluids with emphasis on chemical, macroscopic, and microscopic methodologies.

Corequisite: CLS 161.

**CLS 241      Clinical Chemistry I                      3 (3,0,0,0)**

This course covers basic principles of methodology in clinical chemistry: physiologic biochemistry, specimen collection, differentiation of normal and abnormal test results, special precautions and troubleshooting of test procedures, validation of reliability and correlation with other laboratory tests.

Prerequisite: Acceptance into program and CHEM 111.

**CLS 242      Applied Clinical  
Chemistry I                                      2 (0,6,0,0)**

This course covers specimen collection and processing of carbohydrates, proteins, lipids, heme derivatives, nitrogen, enzymes, blood pH and gases, electrolytes, vitamins, hormones and drugs; liver function tests, analytical instrumentation and quality control.

Corequisite: CLS 241.

**CLS 251      Immunology/  
Immunoematology I                          2 (2,0,0,0)**

An overview of the immune response with emphasis on serological principles used in the laboratory diagnosis of disease processes. Identification of blood group antigens and antibodies and their clinical significance in transfusion therapy.

Prerequisite: Acceptance into program and CHEM 111.



**CLS 252 Applied Immunology/  
Immunoematology I 2 (0,6,0,0)**

The following serological and immunoematological laboratory procedures are covered: grouping, typing, compatibility testing, pregnancy testing, titers, cold agglutinins, quality control.

Corequisite: CLS 251.

**CLS 261 Clinical Microbiology  
for Dental Professionals 2 (2,0,0,0)**

An introduction to clinical microbiology with emphasis on microbial diseases of dental origin and diseases with secondary oral manifestations.

Corequisite: CLS 262.

**CLS 262 Applied Clinical Microbiology  
for Dental Professionals 1 (0,3,0,0)**

A laboratory course emphasizing isolation and identification of pathogenic bacteria, through the use of conventional and commercial methods, microscopic techniques, and serological tests. Specimen collection and processing of microbiological samples will also be addressed.

Corequisite: CLS 261.

**CLS 265 Laboratory Operations I 1 (1,0,0,0)**

Introduction to clinical laboratory sciences including laboratory safety, professional ethics, fundamental laboratory calculations, quality assessment, laboratory information systems, and correlation of laboratory data in patient care.

Prerequisite: Acceptance into MLT/MLS program.

**CLS 271 Clinical Microbiology I 3 (3,0,0,0)**

The study of microorganisms of medical importance to man. Includes characteristics, medical significance and identification of bacteria, mycobacteria, viruses, fungi and parasites.

Prerequisite: Acceptance into CLS program.

**CLS 272 Applied Clinical  
Microbiology I 2 (0,6,0,0)**

Specimen collection and processing. Isolation and identification of pathogenic bacteria, through the use of conventional and commercial methods, microscopic techniques and serological tests.

Corequisite: CLS 271.

**CLS 291 Hematology I 2 (2,0,0,0)**

Development, identification and function of cellular and humoral elements in whole blood. Principles of laboratory assays used in determining the existence and diagnosis of hematologic disorders.

Prerequisite: Acceptance into program and CHEM 111.

**CLS 292 Applied Hematology I 2 (0,6,0,0)**

Slide preparation and staining; manual and automated assays of whole blood components; cell identification; coagulation tests and special hematology procedures.

Corequisite: CLS 291.

**CLS 294 Clinical Practicum I 2 (0,0,6,0)**

A clinical rotation in clinical microbiology.

Prerequisite: CLS 272.

**CLS 295 Clinical Practicum II 2 (0,0,8,0)**

A clinical rotation in chemistry, urinalysis, and body fluids.

Prerequisite: CLS 162 and 242.

**CLS 296 Clinical Practicum III 4 (0,0,12,0)**

A clinical rotation in hematology, coagulation, immunology, and immunoematology.

Prerequisite: CLS 252 and 292.

**CLS 361 Urinalysis and Body Fluids II 2 (2,0,0,0)**

Advanced studies in body fluid analysis for the clinical laboratory. Emphasis on the compilation of analytical results; evaluation of data for clinical application; and assessment of quality assurance systems for the analysis of urine and other body fluids.

Prerequisite: CLS 161 and 162

**CLS 365 Laboratory Operations II 1.5 (1.5,0,0,0)**

Theory and practice of fiscal/personnel management of laboratory practitioners. Assay implementation, government regulatory and accreditation policies. Applications of basic educational methods for laboratory personnel.

Prerequisite: CLS 265.

**CLS 446 Clinical Chemistry II 2 (2,0,0,0)**

Advanced study of chemical analysis of blood, urine and other body fluids in normal and abnormal physiological conditions. Topics include endocrinology, toxicology and special procedures.

Prerequisite: CLS 242.

**CLS 447 Applied Clinical Chemistry II 1 (0,3,0,0)**

Advanced laboratory applications in chemical analysis of blood, urine and other body fluids in normal and abnormal physiological conditions. Topics include endocrinology, toxicology and special procedures.

Corequisite: CLS 446.

**CLS 448 Hematology II 2 (2,0,0,0)**

Diagnostic hematology and body fluid analysis, with advanced study of anemias, leukemias, myeloproliferative and myelodysplastic disorders, and advanced topics in hemostasis.

Prerequisite: CLS 292.



**CLS 449 Applied Hematology II 1 (0,4,0,0)**

Diagnostic hematology and body fluid analysis with emphasis on laboratory testing and molecular markers used to differentiate/diagnose various hematologic malignancies and hemostasis disorders.

Corequisite: CLS 448.

**CLS 456 Immunology/Immunochemistry II 2 (2,0,0,0)**

Study of advanced principles of immunology and the identification of clinically significant blood group antigens and antibodies in transfusion medicine.

Prerequisite: CLS 252.

**CLS 457 Applied Immunology/Immunochemistry II 1 (0,4,0,0)**

Applied laboratory procedures in immunologic and molecular techniques used to analyze antigen-antibody reactions in the diagnosis of health or disease. Includes advanced immunochemical procedures.

Corequisite: CLS 456.

**CLS 476 Clinical Microbiology II 2 (2,0,0,0)**

Advanced study of pathogenic microorganisms. Emphasis on fungal, parasitic, viral, mycobacterial diseases as well as normal and pathogenic bacteria from specific body sites.

Prerequisite: CLS 272.

**CLS 477 Applied Clinical Microbiology II 1 (0,4,0,0)**

Advanced practical applications used in recovery, isolation and identification of pathogenic microorganisms. Includes fungi, parasites, mycobacteria, viruses and miscellaneous bacteria.

Corequisite: CLS 476.

**CLS 478 Research Methods 2 (2,0,0,0)**

Study of basic research concepts and principles aimed at equipping students with skills and tools for systematic investigation in health sciences and writing of research proposals.

Prerequisite: ECON 261 and CLS 477.

**CLS 486 CLS Clinical Chemistry Review 1.5 (1.5,0,0,0)**

Comprehensive review of clinical chemistry for Clinical Laboratory Science.

Prerequisite: Admission to CLS program or Instructor consent.

**CLS 487 CLS Hematology Review 1.5 (1.5,0,0,0)**

Comprehensive review of Hematology for Clinical Laboratory Science.

Prerequisite: Admission to CLS program or Instructor consent.

**CLS 488 CLS Immunology/Immunochemistry Review 1.5 (1.5,0,0,0)**

Comprehensive review of Immunology and Immunochemistry for Clinical Laboratory Science.

Prerequisite: Admission to CLS program or Instructor consent.

**CLS 489 CLS Clinical Microbiology Review 1.5 (1.5,0,0,0)**

Comprehensive review of Clinical Microbiology for Clinical Laboratory Science.

Prerequisite: Admission to CLS program or Instructor consent.

**CLS 490 CLS General Laboratory & Urinalysis Review 1.5 (1.5,0,0,0)**

Comprehensive review of laboratory operations and Urinalysis for Clinical Laboratory Science.

Prerequisite: Admission to CLS program or Instructor consent.

**CLS 491 Clinical Practicum - Chemistry 4 (0,0,12,0)**

Clinical rotation in Clinical Chemistry. Designed to gain applied experiences and develop entry-level competencies as a Medical Laboratory Scientist.

Prerequisite: CLS 447.

**CLS 493 Clinical Practicum - Immunology/Immunochemistry 4 (0,0,12,0)**

Clinical rotation in Immunology/Immunochemistry. Designed to gain applied experiences and develop entry-level competencies as a Medical Laboratory Scientist.

Prerequisite: CLS 457.

**CLS 495 Clinical Practicum - Microbiology 4 (0,0,12,0)**

Clinical rotation in Microbiology. Designed to gain applied experiences and develop entry-level competencies as a Medical Laboratory Scientist.

Prerequisite: CLS 477.

**CLS 497 Clinical Practicum - Hematology 4 (0,0,12,0)**

Clinical rotation in Hematology. Designed to gain applied experiences and develop entry-level competencies as a Medical Laboratory Scientist.

Prerequisite: CLS 449.



## Communication

### COM 101 Oral Communication 3 (3,0,0,0)

Theory and practice in extemporaneous speaking and other prepared speaking experiences.

### COM 101H Oral Communication - Honors 3 (3,0,0,0)

Theory and practice in spoken communication and other speaking experiences. Honors addresses a greater body of research and focuses on a required theme. Honors-level courses can be used to fulfill equivalent general education requirements.

Prerequisite: Admission to the Honors program.

### COM 102 Introduction to Interpersonal Communication 3 (3,0,0,0)

Theory and practice in effective interpersonal communication with written and real world applications. Topics may include perception, using verbal and nonverbal symbols, listening, self-disclosure, interpersonal conflict, developing and maintaining relationships.

Prerequisite: ENG 100 or 101 or 113.

### COM 115 Applied Communication 3 (3,0,0,0)

Emphasis placed on improving oral and written communication skills in the workplace, including organizational networks, interviewing, presentations, listening and groups. Culture and personality are analyzed.

### COM 116 Critical Reasoning in Daily Life 3 (3,0,0,0)

Theory and practice of critical reasoning applied to a variety of everyday communication forms, including arguments, narratives, advertisements, visual media, protests, performances, and public space.

### COM 133 Culture and Communication 3 (3,0,0,0)

Introduction to theory, analysis and practice in understanding culture and its impact on communication. Emphasis on the use of cultural awareness and multicultural sensitivity to improve oral and written communication skills. (Same as ANTH 133.)

### COM 180 Cinema as Art and Communication 3 (3,0,0,0)

A survey of cinema in its diverse forms. Historical and stylistic influences on the aesthetic values and implications of cinema. The course focuses on writing about film from various perspectives. Research of peer reviewed journal articles is a focus. Illustrated by screen examples.

### COM 196 Internship 1-3 (0,0,0,1-3)

A supervised workshop experience in a local television studio, radio station, newspaper, advertising agency, public relations firm or any other organization relating to communication. Can be repeated for a total of 6 credits.

Prerequisite: Approval of the station, newspaper, agency or firm where internship will be completed; and approval from the Department of Communication Internship Coordinator.

### COM 203 Advanced Public Speaking 3 (3,0,0,0)

Theory and practice in extemporaneous speaking and other prepared speaking experiences. Emphasis on advanced delivery and research skills for public speaking.

### COM 211 Survey of Rhetorical Studies 3 (3,0,0,0)

Survey of historical development of various rhetoric canons, concepts, and perspectives beginning with ancient Greek and Roman rhetoric and concluding with contemporary discourse and rhetorical theory.

### COM 215 Introduction to Group Communication 3 (3,0,0,0)

Theory and practice in small group communication. Emphasis placed on discussion, problem solving, group roles, conflict management, and leadership.

### COM 216 Survey of Communication Studies 3 (3,0,0,0)

Survey and analysis of the concepts, principles, and values of human communication grounded in communication theory and practice.

### COM 217 Argumentation and Debate 3 (3,0,0,0)

Theory and practice in oral argumentative discourse. Emphasis placed on developing reasoning skills, critical thinking, preparing and presenting oral arguments within discussions and debates.

Prerequisite: COM 101.

### COM 288 Careers in Communication 3 (3,0,0,0)

This course is designed to introduce Communication majors to the job search process in the field of Communication. Emphasis is placed on personality assessment, interviewing skills, and drafting job search documents.

### COM 299 Special Topics in Communication 1-4 (1-4,0,0,0)

Investigates a special topic and/or area of interest within the field of Communication Studies. May be repeated for up to 6 credits.

### COM 340 Cross Cultural Communication in Health Care 3 (3,0,0,0)

Emphasis on multicultural differences within the health care systems. Focus on recognition of various cultural beliefs and attitudes in professional communication. Overview of cross-cultural theoretical perspectives.

Prerequisite: Admission to Dental Hygiene Bachelor of Science Degree Program.



## Construction Management

### **CONS 108B Construction Materials and Methods 3 (3,0,0,0)**

This course will cover building materials used for the interior and exterior environment of sustainable and non-sustainable construction. Proper methods of installation will be discussed.

### **CONS 110B Introduction to Sustainable Construction 3 (3,0,0,0)**

This course is designed to help student comprehend and apply fundamentals of sustainable construction practices with emphasis placed on the development and proper use of the Energy Conservation and Green Construction Codes.

### **CONS 111B Commercial Building Codes (IBC) 4 (4,0,0,0)**

A basic course designed to introduce the International Building Code, with emphasis placed on the development and proper use of the commercial building codes.

### **CONS 113B Residential Codes (IRC) 4 (4,0,0,0)**

A basic course designed to introduce the International Residential Code, with emphasis placed on the development and proper use of residential building, mechanical, plumbing, and electrical code requirements.

### **CONS 120B Construction Plans and Specifications 3 (3,0,0,0)**

A study of the fundamental language utilized in construction drawings. Emphasis will be placed on residential and light commercial plans.

### **CONS 185B Lean Construction 3 (3,0,0,0)**

This course is designed to advance the students' understanding of lean fundamentals and the impact it will have in the construction industry.

### **CONS 205B Construction Site Safety 2 (2,0,0,0)**

This course covers 30-hours of authorized training addressing the 29 CFR 1926 OSHA Construction Industry Regulation Standards and upon completion, students will receive a certificate from the U.S. Department of Labor's Occupational Safety and Health Administration.

### **CONS 282B Construction Law 3 (3,0,0,0)**

Items covered in this course include construction contracts and documents, specifications, contract formation, interpretation, arbitration, professional ethics, Nevada contractor lien laws, construction bonds and contractor's liabilities, rights and duties.

### **CONS 285B Construction Estimating and Scheduling 4 (3,3,0,0)**

Advanced estimating and scheduling concepts for residential and commercial projects. The critical path scheduling method will be used.

Prerequisite: CONS 120 and CONS 185; and either IS 100B or IS 101; and MATH 104B or 124 or 126.

### **CONS 286B Construction Management and Analysis 3 (3,0,0,0)**

Introduction to management theory and techniques with applications to construction problems, management principles and methods of applying this knowledge to the modern construction industry.

Prerequisite: CONS 108B and 185B and 282B; and either ENG 100 or 101 or 113.

### **CONS 288B Quality Control of Construction Waste 3 (3,0,0,0)**

This course will provide a general overview of the hazardous materials management industry, with emphasis on hazardous materials, hazardous waste, laws and regulations, and its effects on the environment and worker health and safety. (Same as WWT 110B.)

### **CONS 299B Construction Capstone Course 3 (2,3,0,0)**

This capstone course will assess the student's comprehension of the Construction Management program to include: construction estimating, law, management materials, plan review, and sustainable construction. Graded Pass/Fail.

Prerequisite: COM 115 or ENG 102 or Program Director approval.

## Computer Office Technology

### **COT 101B Computer Keyboarding I 3 (3,0,0,0)**

Mastery of computer alpha-numeric keyboard and introduction of 10-key pad. Not for students who have previously had typing.

### **COT 102 Computer Keyboarding II 3 (3,0,0,0)**

Formatting of letters, memos, and other office documents. Introduction to word processing. Students should be able to type 25 wpm.

### **COT 103B Keyboarding Review and Speed 1 (0,2,0,0)**

Emphasis on speed building techniques. May be repeated for a maximum of three credits.

### **COT 108 Speedwriting Shorthand I 3 (3,0,0,0)**

Complete theory of alphabetic shorthand – abbreviated longhand. Beginning dictation and transcription practice. Used for taking lecture notes or general office dictation.



**COT 109B Speedwriting Shorthand II 3 (3,0,0,0)**

Dictation and transcription for speed development. Reinforcement of theory through extensive repetitive use of common words, phrases, and shortcuts. Spelling and punctuation emphasis for mailable letters.

**COT 127B Microsoft Office for Offices 3 (3,0,0,0)**

Includes the beginning features of Word, Excel, Access, and PowerPoint, the main programs in Microsoft Office. Emphasis on crediting and editing office documents.

**COT 129B Records Management 3 (3,0,0,0)**

Introduction to filing principles and rules, equipment and supplies, filing systems (alphabetic, numeric, etc.), records disposition, correspondence control, information retrieval, and records storage.

**COT 132B Outlook for Offices 1 (1,0,0,0)**

Explores the features of the Microsoft Office Outlook program including Outlook e-mail, address books, distribution lists, calendar, Outlook Security, and setting up meetings.

**COT 200 Word Processing I 3 (3,0,0,0)**

Includes creating, formatting, and revising documents using the basic features of a word processing program. Focuses on proofreading and using a reference manual for grammar, format, and style. Students should be able to type 40 wpm.

**COT 201B Word Processing II 3 (3,0,0,0)**

Includes creating, formatting, and revising documents using the intermediate features of a word processing program. Focuses on proofreading and document preparation.

Prerequisite: COT 102 and 200.

**COT 205B Pads & Tabs - Office on the Go 3 (3,0,0,0)**

Introduction to an Apple iPad or similar device (provided in class). Current office applications, Internet, communication, contact/calendar, and remote access will be covered.

**COT 208B Tablet Computer, Voice and Handwriting 1 (1,0,0,0)**

Includes the basics of a Tablet computer, voice recognition and handwriting recognition, and creation and edition of documents and emails.

**COT 209B Tablet Computer, Voice and Handwriting II 3 (3,0,0,0)**

Covers more about Tablet computers and their capabilities, techniques, and shortcuts. Improve voice and handwriting recognition skills to create and edit documents and emails and perform Internet tasks. Use other current programs for note taking and reminders.

**COT 213B Business Professionalism 1 (1,0,0,0)**

A capstone course that includes creating and editing text by using a computer keyboard, voice recognition, or handwriting recognition in a word processing program. Review and edit document content using critical thinking skills.

Prerequisite: BUS 106B; and COT 102 and 127B and 200 and 201B.

**Counseling and Personal Development****CPD 116 Substance Abuse: Fundamental Facts and Insights 3 (3,0,0,0)**

Overview of how involvement with alcohol, tobacco and other drugs can affect health, personal and social development. Related social, philosophical, cultural, prevention and treatment issues.

**CPD 117 Introduction to Counseling 3 (3,0,0,0)**

Provides students with interviewing and basic counseling skills. Discusses confidentiality and ethics. Includes experiential role play.

**CPD 120 Treatment Planning and Case Management 2 (2,0,0,0)**

Provides working knowledge of intake, assessment, planning, implementation, evaluation, and proper documentation of various mental health and other community services, including legal and confidentiality requirements.

Prerequisite: CPD 117; or MHDD 109; or PSY 102.

**CPD 121 Gambling Addiction 3 (3,0,0,0)**

Provides knowledge of gambling addiction. Covers signs and symptoms, historical, cultural and economic perspectives, and treatment.

Prerequisite: PSY 101 or CPD 116.

**CPD 133 Small Group Interaction - Group Counseling 3 (3,0,0,0)**

Provides fundamental knowledge of group dynamics and observation/application of group counseling skills.

Prerequisite: CPD 117 or PSY 102.

**CPD 134 Women and Substance Abuse Treatment Issues 3 (3,0,0,0)**

Provides working knowledge of issues in counseling addicted women. Covers signs and symptoms, historical perspectives, cultural attitudes, family issues, pregnancy, drug affected children and treatment approaches.

**CPD 201 Crisis Communication Skills 3 (3,0,0,0)**

Overview of the types, stages, and interventions involved in crisis situations. Emphasis is on situational assessment, appropriate interventions, communication/counseling skills, and referral/follow-up services for persons in crisis.



**CPD 217      Advanced Counseling  
Techniques for  
Substance Abuse                      3 (3,0,0,0)**

Comprehensive overview of counseling philosophies, concepts, theories and practical treatment approaches appropriate for the substance abuser.

Prerequisite: PSY 101 and CPD 117.

**CPD 218      Family Counseling Issues  
in Substance Abuse                      3 (3,0,0,0)**

Provides knowledge for identifying and assessing substance abuse appropriate for family counseling. Theoretical and practical approaches to family counseling.

Prerequisite: PSY 101 and CPD 117.

**CPD 220      Dual Diagnosis                      3 (3,0,0,0)**

Provides working knowledge of the assessment and treatment of patients with a coexisting mental illness and substance abuse disorder.

Prerequisite: PSY 101 or CPD 116.

**CPD 230      Addiction and Trauma                      3 (3,0,0,0)**

Provides knowledge of the interrelationship between addiction and trauma. Covers diagnostic criteria and includes experiential role-play and practice in counseling skills.

**CPD 254      Bio-Psycho/Social  
Factors in Addiction                      3 (3,0,0,0)**

Theories of alcohol and other drug addictions with emphasis on the signs and symptoms of problematic use as well as methods of assessment and intervention.

Prerequisite: CPD 116.

**CPD 255      Developmental Theories  
and Prevention/  
Education Strategies                      3 (3,0,0,0)**

The impact of addiction on development in children and families, perinatal addiction and fetal alcohol syndrome, and current prevention and education models and services.

Prerequisite: CPD 254.

**CPD 290      Internship in Counseling                      1 (0,0,1,0)**

Supervised counseling work experience with selected community agencies. Up to eight semester hour credits may be earned on the basis of 100 hours of internship for one credit. May be repeated up to eight credits.

Prerequisite: CSN Addiction Program Director approval.

**CPD 291      Substance Abuse  
Counseling Practicum I                      3 (0,0,0,12)**

Substance abuse counseling work experience in a selected community agency. The student works 12 hours per week under agency supervision in the final year. If taken earlier, permission is required by CSN Addiction Program Director.

Prerequisite: CPD 290 or CSN Addiction Program Director approval.

**CPD 292      Substance Abuse  
Counseling Practicum II                      3 (0,0,0,12)**

Further supervised substance abuse counseling work experience in a selected community agency. The student works 12 hours per week under agency supervision in the final semester.

Prerequisite: CPD 290 and 291; or CSN Addiction Program Director approval.

**Computer Engineering**

**CPE 100      Digital Logic Design I                      3 (3,0,0,0)**

Logic gates. Simplification of Boolean functions. Design and testing of combinational and sequential circuits including code converters, multiplexers, adders, and synchronous counters.

Prerequisite: MATH 127 with a grade of C or higher; or MATH 128 with a grade of C or higher; or MATH 181 or above with a grade of C or higher; or SAT math score of 630 or higher; or ACT math score of 28 or higher.

**CPE 100L      Digital Logic Design I  
Laboratory                      1 (0,3,0,0)**

This laboratory course covers the following experiments: a) Basic logic gates, Boolean algebra and logic simplifications; b) combinational logic circuits and their applications, flip-flops and related devices; c) MSI circuits including multiplexers, decoders; d) binary adders, and asynchronous and synchronous counters.

Prerequisite: CPE 100 (may be taken before or at the same time as CPE 100L).

**CPE 200      Digital Logic Design II                      3 (3,0,0,0)**

Design of sequential circuits, finite state machines (FSMs), and arithmetic circuits. Timing analysis. Use of programmable logic devices (PLDs) and hardware description languages (HDLs). Assembly language.

Prerequisite: CPE 100 with a grade of C or higher.

Corequisite: CPE 200L.

**CPE 200L      Digital Logic  
Design II Laboratory                      1 (0,3,0,0)**

This laboratory course covers design and testing of combinational and sequential logic circuits. Includes synchronous and asynchronous circuits, races, cycles, and hazards, timing considerations; design programmable logic devices (PLD), Design and simulation of a simple arithmetic logic unit; assembly language simulation.

Corequisite: CPE 200.



## Criminal Justice

**CRJ 103      Communication Within  
the Criminal Justice Field      3 (3,0,0,0)**

Prepares the student to be able to communicate within the criminal justice field by introducing him/her to the five basic communication skills: report writing, non-verbal communication, basic public speaking, interviewing and interrogating skills, and courtroom testimony.

**CRJ 104      Introduction to  
Administration of Justice      3 (3,0,0,0)**

This course is designed to introduce students to the American criminal justice system. This includes the development and components of the system in addition to the procedures that ensure due process. This course is the foundation of the formal study of criminal justice.

**CRJ 106      Introduction to Corrections      3 (3,0,0,0)**

Survey of correctional science. Historical development, current concepts and practice, and study issues that impact the sentencing and management of offenders.

Prerequisite: CRJ 104.

**CRJ 107      Introduction to  
Ethics in Criminal Justice      3 (3,0,0,0)**

This course provides a study of ethical thoughts and issues facing the criminal justice professional. Topics include constitutional ethics and professional code of conduct in theory and in practice.

Prerequisite: CRJ 104.

**CRJ 108      Introduction to  
Homeland Security      3 (3,0,0,0)**

This course will introduce students to the vocabulary and important components of Homeland Security. Students will discuss the importance of the agencies associated with Homeland Security and their interrelated duties and relationships. This course will examine historical events that impact Homeland Security. It will also explore state, national, and international laws impacting Homeland Security. It will examine the most critical threats confronting Homeland Security.

**CRJ 110B      Introduction to Nevada  
Law Enforcement      3 (3,0,0,0)**

This course provides a systematic approach to examination of criminal justice in the State and in particular Southern Nevada. It will also include an overview of the major subsystems: police, prosecution, defense, courts, corrections and juvenile justice. This course is designed for students who will be attending the Law Enforcement Training Academy.

**CRJ 111B      Firearms I      3 (2,2,0,0)**

Laws of arrest, search and seizure. Moral and ethical aspects of the use of deadly force. Firearm handling, safety, range nomenclature, marksmanship and qualification.

**CRJ 114B      Firearms II      2 (1,2,0,0)**

Continuation of CRJ 111B. Advanced range qualification, precision marksmanship, defensive measures, counter ambush procedures, combat shooting, robbery in progress, building searches and shotgun use.

Prerequisite: CRJ 111B.

**CRJ 120      Community Relations      3 (3,0,0,0)**

This course provides an understanding of the positive and negative relationships between criminal justice professionals and various members of the community.

Prerequisite: CRJ 104.

**CRJ 130      Survey of Criminal Law      3 (3,0,0,0)**

An introduction to criminal law, its common law origins, basic concepts and applications in legal proceedings.

Prerequisite: CRJ 104.

**CRJ 140      Elements of Supervision      3 (3,0,0,0)**

This course discusses and examines innovative ideas and concepts concerning supervision of employees and leadership roles in criminal justice agencies.

Prerequisite: CRJ 104.

**CRJ 145      Transportation  
and Border Security      3 (3,0,0,0)**

This course provides an in-depth view of modern border and transportation security. Specific topics include security for sea-ports, ships, aircraft, trains, trucks, pipelines, buses, etc. This course focuses on the technology needed to detect terrorists and their weapons as well as includes discussion on legal, economic, political, and cultural aspects of the problem.

Prerequisite: CRJ 108 or EMA 101.

**CRJ 155      Juvenile Justice System      3 (3,0,0,0)**

An analysis of the causes and extent of delinquent behavior; techniques addressing juvenile offenders and victims; prevention and repression of delinquency; organization of community resources for juvenile offenders including juvenile law, court, and correctional procedures.

Prerequisite: CRJ 104.

**CRJ 160      Business Continuity  
and Resilience      3 (3,0,0,0)**

This course provides instruction in the importance of an effective Continuity of Operations Plan/Program (COOP). The course will provide fundamental understanding of continuity of operations, terms, objectives, and benefits to private business and public agencies. The course will emphasize the importance of having a plan which provides for a rapid and efficient return to business after an emergency.

Prerequisite: CRJ 108 or EMA 101.





**CRJ 161 Crime Scene Investigation 3 (3,0,0,0)**

This course will provide the fundamentals of modern crime scene investigation including procedures and skills in securing, searching and investigating a crime scene, behavior at the crime scene, and the collection and preservation of evidence. The student will also learn how to prepare a report for use in court proceedings.

Prerequisite: CRJ 104.

**CRJ 162 Investigative Photography I 3 (3,0,0,0)**

This course will provide the fundamentals of documenting crime scenes, evidence, and people through photographic processes. An elementary knowledge of photography is required.

Prerequisite: CRJ 104.

**CRJ 163 Investigative Photography II 3 (3,0,0,0)**

A course covering advanced investigative photography techniques and the use of digital photography.

Prerequisite: CRJ 162.

**CRJ 164 Introduction to Criminal Investigation 3 (3,0,0,0)**

Fundamentals of investigation; techniques of crime scene search and recording; collection and preservation of physical evidence; modus operandi processes; sources of information; interviews and interrogations; preliminary and follow-up investigations.

Prerequisite: CRJ 104.

**CRJ 165 Criminalistic Science 3 (3,0,0,0)**

Evidence collection and preservation, scientific analysis, laboratory procedures and techniques to ensure chain of custody.

Prerequisite: CRJ 104.

**CRJ 167B Preliminary Investigation for Police Recruits 3 (3,0,0,0)**

This course will provide the basic skills needed to do effective police preliminary criminal investigations. The emphasis will be on learning proper techniques as a first responder to a crime scene, how to secure a crime scene and controlling the scene including determining if a crime occurred, rendering aid to the injured, arresting suspects and securing witnesses.

**CRJ 170B Physical Training for Law Enforcement 1 (0,2,0,0)**

Post pretest. Physical training relevant to a law enforcement profession to prepare for the final physical training test.

**CRJ 210B Community Policing in Southern Nevada 3 (3,0,0,0)**

This course provides an introduction into the community policing models of Southern Nevada. It will also include an overview of the history, definition, evaluation and proactive policing concepts as applied to the various groups of citizens served by law enforcement agencies. This course is designed for students who will be attending the Law Enforcement Training Academy.

**CRJ 211 Police in America 3 (3,0,0,0)**

This course familiarizes students with the role and evolution of law enforcement in the United States, including the qualifications and expectations for law enforcement. Key issues related to use of force, ethics, policy, and law are explored.

Prerequisite: CRJ 104.

**CRJ 214 Principles of Police Patrol Techniques 3 (3,0,0,0)**

An examination of the mission of uniform patrol functions, how to properly prepare for patrol and how to respond to calls under a variety of circumstances.

Prerequisite: CRJ 104.

**CRJ 215 Probation and Parole 3 (3,0,0,0)**

This course will provide an overview of the probation and parole systems in the United States. The emphasis will be on the theories related to effective probation and parole policies, the procedures related to probation and parole, and the skills necessary to be an effective probation or parole officer.

Prerequisite: CRJ 104.

**CRJ 216B Police Patrol Tactics 3 (3,0,0,0)**

This course will provide a basic understanding of police patrol techniques. Various methods and procedures used including tactics for routine patrol, responding for calls for service, citizen contact, and how to handle suspects. Students will understand legal requirements.

**CRJ 219B Emergency Vehicle Operation and Control 3 (1,4,0,0)**

Shuffle steering, steering motion dynamics and vehicle braking (lock-wheel, ABS, impending). Pursuit driving times (vehicle timing) and techniques. Measurement of hearing and tunnel vision.

**CRJ 221B Criminal Procedures for Law Enforcement 3 (3,0,0,0)**

This course will provide an understanding of the laws, court decisions and legal procedures for the law enforcement officer. Students will learn the legal framework necessary for law enforcement officers to conduct their duties legally.

**CRJ 225 Criminal Evidence 3 (3,0,0,0)**

A study of evidence rules and procedural laws affecting criminal evidence. Overview of the appeal process with particular attention to recent U.S. Supreme Court Decisions.

Prerequisite: CRJ 104.

**CRJ 229B Defensive Tactics 3 (1,4,0,0)**

Protection against persons armed with dangerous and/or deadly weapons. Demonstration and drill in a number of holds, come alongs, restraints and baton use.



**CRJ 233 Nevada Criminal Law 3 (3,0,0,0)**

To familiarize the CRJ student with Nevada Criminal Law as set forth in the Nevada Revised Statutes and as interpreted and tested in cases before the Nevada Courts.

Prerequisite: CRJ 104.

**CRJ 235 Legal Method and Process 3 (3,0,0,0)**

Federal and local judicial systems, analysis and synthesis of judicial opinions, the methods of interpretation of statutes, and the role of the courts in conflict resolution.

Prerequisite: CRJ 104.

**CRJ 251 Principles of Correctional Administration 3 (3,0,0,0)**

This class provides an overview of management and operations of correctional facilities.

Prerequisite: CRJ 104.

**CRJ 261 Intelligence Analysis and Security Management 3 (3,0,0,0)**

This course examines intelligence analysis and its indispensable relationship to the security management of terrorist attacks, man-made disasters and natural disasters. It also explores vulnerabilities of our national defense and private sectors, as well as the threats posed to these institutions by terrorists, man-made disasters, and natural disasters. Students will discuss substantive issues regarding intelligence support of homeland security measures implemented by the United States and explore how the intelligence community operates.

Prerequisite: CRJ 108 or EMA 101.

**CRJ 270 Introduction to Criminology 3 (3,0,0,0)**

This course introduces theories that attempt to explain criminal behavior. The role of criminological theory and its impact on public policy in the effort to reduce crime is explored.

Prerequisite: CRJ 104.

**CRJ 286 Sexual Abuse of Children 3 (3,0,0,0)**

This course focuses on the complex issues associated with the sexual abuse of children. Emphasis will be on the definition of crimes against children, typology of offenders and victims, sex registration laws, and the roles of criminal justice agencies.

**CRJ 288 Second Year Capstone in Criminal Justice 3 (3,0,0,0)**

This course provides a capstone experience in the field of criminal justice, and provides preparation for advanced academic experiences or professional careers in criminal justice.

Prerequisite: CRJ 104 and Department approval.

**CRJ 290 Internship in Criminal Justice 3 (0,0,0,9)**

Career related field experience working directly with criminal justice or social services agencies. Note: Application process must be completed one (1) semester prior to starting the internship.

Prerequisite: CRJ 104; and successful completion of 18 units of criminal justice credits; and instructor approval.

**Cardiorespiratory Sciences****CRS 111 Introductory Concepts of Cardiorespiratory Sciences 3 (3,0,0,0)**

Presents an overview of health care delivery system and cardiorespiratory professional structures. Basic CRS care modalities are emphasized in context of clinical practice guidelines, therapist-driven protocols, and critical pathways.

Prerequisite: Admission to Associate of Applied Science Cardiorespiratory Sciences degree program.

**CRS 112 Introductory Concepts of Cardiorespiratory Equipment 1 (0,4,0,0)**

Emphasizes skill development of non-critical cardiorespiratory care treatment modalities. Equipment application and operation theory presented in context of guidelines, protocols, and pathways.

Corequisite: CRS 111.

**CRS 115 Clinical Practicum I 4 (0,0,16,0)**

Introduces the non-critically ill cardiorespiratory patient in the clinical setting. Emphasizes hospital decorum, professionalism, equipment theory and application, guidelines, protocols and pathways.

Corequisite: CRS 111.

**CRS 121 Advanced Concepts of Cardiorespiratory Sciences 3 (3,0,0,0)**

Introduces acute (critical) cardiorespiratory care emphasizing all aspects of mechanical ventilation and patient monitoring. Critical thinking skills will be further developed through simulated cardiorespiratory care plans.

Prerequisite: CRS 115.

**CRS 122 Advanced Concepts of Cardiorespiratory Equipment 1 (0,4,0,0)**

Emphasizes skill development of critical cardiorespiratory care treatment modalities. Mechanical ventilation, physiological monitoring, and other application and operation theory presented in context of guidelines, protocols and pathways.

Corequisite: CRS 121.

**CRS 123 Applied Cardiorespiratory Assessment 3 (3,0,0,0)**

Presents cardiopulmonary disease assessment, including chest physical exam, chest x-ray, and physiological monitoring. Case studies will assist respiratory care plan development based on guidelines, protocols and pathways.

Corequisite: CRS 121.



- CRS 124      Cardiorespiratory Pharmacology      3 (3,0,0,0)**  
Presents a pharmacological basis of cardiorespiratory interventions. Additionally, integrates this knowledge with aerosol, intramuscular, and intravenous medication administration techniques.  
Prerequisite: CRS 115.  
Corequisite: CRS 123.
- CRS 125      Clinical Practicum II      4 (0,0,16,0)**  
Introduces the critically ill cardiorespiratory patient in the clinical setting. Emphasis on mechanical ventilation, physiological monitoring and other advanced therapeutic modalities.  
Corequisite: CRS 121.
- CRS 135      Clinical Practicum III      3 (2,0,3,0)**  
Structured preparation for the Certified Cardiographic Technician Examination (Cardiovascular Credentialing International) and Advanced Cardiac Life Support; includes EKG interpretation and supportive clinical experience.  
Prerequisite: Admission to Associate of Applied Science Cardiorespiratory Sciences degree program.
- CRS 211      Neonatal and Pediatric Cardiorespiratory Care      3 (3,0,0,0)**  
Emphasizes cardiorespiratory pathophysiology of the pediatric/neonatal patient. Introduction and advanced pediatric/neonatal concepts developed in context of clinical practice guidelines, therapist driven protocols and critical pathways.  
Prerequisite: CRS 125.
- CRS 212      Neonatal and Pediatric Cardiorespiratory Equipment 1 (0,4,0,0)**  
Emphasizes skill development of neonatal/pediatric cardiorespiratory care. Equipment application and operation theory of mechanical ventilation and physiological monitoring presented.  
Corequisite: CRS 211.
- CRS 213      Cardiorespiratory Diagnostics      3 (3,0,0,0)**  
Presents theoretical aspects of the cardiorespiratory diagnostic procedures, Holter recording, echocardiography, pulmonary function testing, stress testing, and basic polysomnography. Emphasizes application of acquired data to care plans.  
Corequisite: CRS 211.
- CRS 214      Cardiorespiratory Diagnostics Equipment      1 (0,4,0,0)**  
Introduces skill development of non-invasive cardiorespiratory diagnostics. Equipment application and operation theory presented in context of care plan expectations.  
Corequisite: CRS 213.
- CRS 215      Clinical Practicum IV      4 (0,0,16,0)**  
Emphasizes student exposure to multiple cardiorespiratory diagnostic laboratories. Rotations include non-invasive cardiorespiratory function, basic polysomnography and critical care. Continued application of guidelines, protocols and pathways.  
Corequisite: CRS 211.
- CRS 221      Continuity of Cardiorespiratory Care      3 (3,0,0,0)**  
Presents cardiorespiratory care needs of chronically ill, discharge planning, care management, patient education, alternative care sites, and home care. Psychological issues of geriatric care are discussed.  
Prerequisite: CRS 215.
- CRS 222      Seminar for Success      1 (1,0,0,0)**  
Prepares student with a process and content review of the NBRC credentialing examinations. Successful passage of NBRC self assessment examination required.  
Corequisite: CRS 221.
- CRS 225      Clinical Practicum V      4 (0,0,16,0)**  
Introduces student to chronically ill patient care in non-hospital and home settings. Successful passage of NBRC clinical simulation self-assessment examination required.  
Corequisite: CRS 221.
- CRS 312      Cardiorespiratory Leadership Dynamics      3 (3,0,0,0)**  
Prepares the student to be a department and community leader. Focus on techniques relevant to staffing, budgetary needs, inventory control, biomedical services, contractual processing and negotiations, ease and rental agreements.  
Prerequisite: Admission to the Bachelor of Applied Science Cardiorespiratory Sciences degree program.
- CRS 313      Education and Mentoring in the Cardiorespiratory Setting      3 (3,0,0,0)**  
Prepares students to educate all populations from hospital inpatients, outpatients, hospital employees, and students in both the didactic and clinical settings.  
Prerequisite: Admission to the Bachelor of Applied Science Cardiorespiratory Sciences degree program.
- CRS 315      Clinical Practicum VI      4 (0,0,16,0)**  
An advanced clinical practicum for the working Respiratory Therapist. Focus is individualized for each student.  
Corequisite: CRS 312.



**CRS 322 Research and Evidence-Based Practice 3 (3,0,0,0)**

An introduction to evidence-based practice and respiratory care research. Overview of research methodology, statistical analyses, ethical considerations, critical evaluation of peer-reviewed literature, systems change theories, and quality improvement.

Prerequisite: Admission to the Bachelor of Applied Science Cardiorespiratory Sciences degree program.

**CRS 412 Long-Term and Palliative Survey of Cardiorespiratory Care 3 (3,0,0,0)**

Topics pertinent to long-term care facilities including ethics, care, rehabilitation, reimbursement, family interaction, psychology of long-term illness (both patient and family). Palliative care, hospice philosophy, end-of-life topics.

Prerequisite: Admission to the Bachelor of Applied Science Cardiorespiratory Sciences degree program.

**CRS 421 Essentials of Sleep 3 (3,0,0,0)**

Emphasizes skill development in polysomnography. Introduction to sleep disorders, including monitoring techniques and instrumentation. Documentation of laboratory experience is required. Optional concentration on polysomnography in CRS 422 and CRS 425 as Corequisite will prepare student for the NBRC Sleep Diagnostic Specialist exam.

Prerequisite: Admission to the Bachelor of Applied Science Cardiorespiratory Sciences degree program.

**CRS 422 Special Project in Cardiorespiratory Sciences 1 (0,0,0,3)**

Students select area of desired specialty. Specialty must match area of desired clinical concentration in CRS 425. Development of faculty-guided research article, poster presentation, or community advocacy project required.

Prerequisite: CRS 312 and 313 and 322.

Corequisite: CRS 425.

**CRS 425 Clinical Practicum VII 4 (0,0,16,0)**

Students may select area of clinical specialization which may prepare them for a national certification. Specialty areas include polysomnography, asthma/COPD, simulation, teaching practicum, adult critical care, neonatal or pediatric intensive care, pulmonary diagnostics, or point-of-care.

Corequisite: CRS 422.

**Computer Science****CS 135 Computer Science I 3 (3,1,0,0)**

This course is intended for students in computer science or engineering majors. It covers: a) Program development in a complex operating environment; b) Problem-solving methods and algorithm development in a high-level programming language; c) Program design, coding, debugging, and documentation using techniques of a good programming style.

Prerequisite: MATH 127 or 128.

**CS 202 Computer Science II 3 (3,0,0,0)**

This course is the continuation of CS 135. It covers: a) Data structures and algorithms for manipulating linked lists; b) String and file processing; c) Recursion. Software engineering, structured programming and testing, especially larger programs are also covered in this course.

Prerequisite: CS 135.

**Cisco****CSCO 105B Fundamentals of Voice and Data Cabling 3 (2,2,0,0)**

This course will provide the student academic knowledge and experience relating to the physical aspects of voice and data networks. Training will be given on how to identify cable types; design, install, and troubleshoot cabling plants. Training is in a hands-on, group oriented lab environment that will stress documentation, design, installation issues, and on the job safety. Successful students will be prepared to complete the BICSI Installer Level 2c certification exam.

**CSCO 120 CCNA Internetworking Fundamentals 4 (3,2,0,0)**

This is a networking fundamentals course that introduces students to the architecture, structure, functions, components, and models of the Internet and other computer networks. It uses the OSI and TCP layered models to examine the nature and roles of protocols and services at the application, network, data link, and physical layers. The principles and structure of IP addressing and the fundamentals of Ethernet concepts, media, and operations are introduced.

**CSCO 121 CCNA Routing and Switching Essentials 4 (3,2,0,0)**

This course describes the architecture, components, and operations of routers in a small network. Students learn how to configure a router and a switch for basic functionality. Students will configure and troubleshoot routers and switches and resolve common issues with RIPv1, RIPv2, single-area and multi-area OSPF, virtual LANSs, and inter-VLAN routing in both IPv4 and IPv6 networks.

Prerequisite: CSCO 120.

**CSCO 130B Fundamentals of Wireless LANs 3 (2,2,0,0)**

An intensive introduction to wireless LANs which focuses on the design, planning, implementation, operation and troubleshooting of wireless LANs. This hands-on lab-oriented course stresses documentation, design, and installation issues, as well as lab safety, on-the-job safety, and working effectively in a group environment. This course will help prepare students for the Cisco wireless LAN Support Specialist Designation.

Prerequisite: CSCO 121.



**CSCO 205B Fiber Optic Cabling 3 (2,1,0,0)**

Course will address fiber optic system concepts, design, installation, and troubleshooting. Covered items include cable splicing, and terminating, installing optical fiber cable, field terminology and using test equipment. Course includes hands-on labs to develop skills working with fiber optic cable. Requires finger dexterity and visual acuity to work with small components.

**CSCO 220 CCNA Scaling Networks 4 (3,2,0,0)**

This course describes the architecture, components, and operations of routers in a larger and more complex network. Students learn how to configure routers and switches for advanced functionality. Students will configure and troubleshoot routers and switches and resolve common issues with OSPF, EIGRP, STP and VTP in both IPv4 and IPv6 networks. Students will also develop the knowledge and skills needed to implement DHCP and DNS operations in a network.

Prerequisite: CSCO 121.

**CSCO 221 CCNA WAN Fundamentals 4 (3,2,0,0)**

This is one of four courses that applies toward the preparation for a CCNA certification. It explains the principles of traffic control and access control lists (ACLs) and provides an overview of the services and protocols at the data link layer for wide-area access. Students learn how to implement and configure WAN protocols. WAN security concepts, tunneling, and VPN basics are also introduced.

Prerequisite: CSCO 220.

**CSCO 230B Fundamentals of Network Security 4 (3,2,0,0)**

The Fundamentals of Network Security course is designed to prepare students for certification in this field (Cisco and CompTIA security exams). The course teaches students to design and implement security solutions to reduce the risk of revenue loss and vulnerability. This course combines hands-on experience, instructor-led lectures, and a Web based curriculum for students. The course is an introduction to network security and overall security processes. This course prepares the student for successful completion of the Cisco CCNA Security certification exam. Students taking this course are assumed to have already obtained, through coursework or industry experience, the knowledge required to pass the Cisco CCNA exam.

Prerequisite: CSCO 121.

**CSCO 480 CCNP ROUTE 4 (3,2,0,0)**

This course prepares the student with the knowledge and skills necessary to use advanced IP addressing and routing in implementing scalability for routers connected to LANs and WANs. This course is recommended preparation for the CISCO CCNP Certification Exam, ROUTE.

Prerequisite: CSCO 221 or CCNA Certification.

**CSCO 482 CCNP SWITCH 4 (3,2,0,0)**

This course prepares the student with the knowledge and skills necessary to implement scalable multilayer switched networks. This course includes topics on Campus Networks, describing and implementing advanced Spanning Tree concepts, VLANs and Inter-VLAN routing, High Availability, Wireless Client Access, Access Layer Voice concepts, and minimizing service Loss and Data Theft in a Campus Network. This course is recommended preparation for the CISCO CCNP Certification Exam, SWITCH.

Prerequisite: CSCO 480 or Instructor approval.

**CSCO 484 CCNP TSHOOT 4 (3,2,0,0)**

This course teaches the student how to monitor and maintain complex, enterprise routed and switched IP networks. Skills learned include the planning and execution of regular network maintenance, as well as support and troubleshooting using technology-based processes and best practices, based on systematic and industry recognized approaches. Extensive labs emphasizes hands-on learning and practice to reinforce troubleshooting techniques. This course is recommended preparation for the CISCO CCNP Certification Exam, TSHOOT.

Prerequisite: CSCO 480 and 482.

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**Cyber Security**


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**CSEC 101B Incident Handling & Response 3 (3,1,0,0)**

Students learn to design and manage key business information security functions including incident handling, response plans, incident response teams, disaster recovery plans, and discuss business continuity plans. Reporting, response planning and budgeting are all addressed. Students prepare an incident response, disaster recovery, or business continuity plan for a real-world organization such as a business or a government body or agency. CSEC 105 taken concurrently is suggested.

Prerequisite: ENG 100 or 101 or 107 or 113 with a grade of C- or better.

**CSEC 104B Security Essentials 3 (3,1,0,0)**

Learn to build a security roadmap that can scale today and into the future. Focus on the essential information security skills and techniques needed to protect and secure an organization's critical information assets and business systems. Discuss prevention of an organization's common security problems.

Prerequisite: CIT 112B or Instructor approval.

**CSEC 105B Introduction to Technical Ethics 3 (3,0,0,0)**

This course deals with ethical issues associated with the design, use, and propagation of technology. At virtually all stages of development and use, any technology can carry with it ethical dilemmas for both creators and users. Of interest is how such dilemmas are resolved (or complicated) according to how effectively they are communicated to stakeholders. Write reports, instructions, summaries, and e-mails; develop audience awareness skills; develop skills in document layout and design, and collaborate in a group project.

Prerequisite: ENG 100 or 101 or 107 or 113 with a grade of C- or better.



**CSEC 125B Policy, Legal, & Compliance 3 (3,0,0,0)**

This course covers the laws governing business, contracts, fraud, crime, IT security, IT liability, IT policy, and ethics — all with a focus on electronically stored and transmitted records. Also covers how investigators prepare credible, defensible reports, whether for cyber, forensics, incident response, human resources, or other investigations. This course provides training and continuing education for many compliance programs such as GLBA, HIPAA, FISMA, and PCI-DSS.

Corequisite: CSEC 101B.

**CSEC 131B Operations & Physical Security 3 (3,1,0,0)**

This course introduces the basics of network/physical security. Computer network vulnerabilities and threats are introduced. This course exposes the student to network security planning, security technology, security organization, and monitoring. Familiarizes the student with physical security controls for a typical Information Technology (IT) infrastructure. Examines the need for physical security, types of physical security (physical barriers and site hardening; physical entry and access controls; security lighting; intrusion detection systems; video surveillance; security personnel), and physical security policies and procedures as well as physical security concerns such as access control systems, alarm systems, and environmental control systems.

Prerequisite: CSEC 101B with a grade of C or better; or Instructor approval.

**CSEC 225B Governance & Risk Management 3 (3,0,0,0)**

Topics include fully aligning IT to business strategies and direction, identifying and controlling key risks, and demonstrating legislative and regulatory compliance. Also provides students with sufficient understanding of risk assessment models, methodologies, and processes such that they can perform a risk assessment of a particular system and recommend mitigations to identified risks.

Prerequisite: CSEC 101B with a grade of C or better; or Instructor approval.

**CSEC 226B Compliance 3 (3,1,0,0)**

Introduces the student to Information Systems Security Compliance. Topics include what security compliance is, how to assess security controls (physical, procedural, and technical), and methods to remediate security gaps discovered during the security assessment using Control Objectives for Information and related Technology (COBIT), and International Standards Organization/International Electro Technical Commission (ISO/IEC 27000) as the control frameworks. Discussions conducted on compliance areas include Health Insurance Portability and Accountability Act (HIPAA), Gramm-Leach-Bliley Act (GLBA), Sarbanes-Oxley Act (SOX), Federal Information Security Management Act of 2002 (FISMA), Payment Card Industry Data Security Standard (PCI-DSS), Family Educational Rights and Privacy Act (FERPA), Children's Online Privacy Protection Act (COPPA), and Children's Internet Protection Act (CIPA).

Prerequisite: CSEC 125B with a grade of C or better; or Instructor approval.

**CSEC 231B Access Control 3 (3,1,0,0)**

Explores the concept of controlling access to information systems and applications. Topics include authorization; authentication; accounting for end-users, network devices, system, and administrators; and security controls for access control including tokens and public key infrastructures (PKIs).

Prerequisite: CIT 173 or 174 or 212 or 213 or 214 or 215 with a grade of C or better; or Instructor approval.

**CSEC 241B Cryptography 3 (3,1,0,0)**

Introduces students to concepts of cryptographic systems and how to correctly use them in real-world applications. This course features a rigorous introduction to modern cryptography with an emphasis on the fundamental cryptographic primitives of public-key encryption, digital signatures, pseudo-random number generation, and basic protocols and their computational complexity requirements.

Prerequisite: MATH 124 or above with a grade of C or better; or Instructor approval.

**CSEC 245B Device Hardening 3 (3,1,0,0)**

Provides the student access to tools and techniques to control, mitigate potential attacks, and provide confidentiality of personal and corporate data even on end-user owned devices. Covers the skills to track corporate property, and perform security and policy audits on devices owned by either the organization or by an individual without harm to the device.

Prerequisite: CIT 274B or CSEC 281B with a grade of C or better; or Instructor approval.

**CSEC 271B Security Programming & Scripts 3 (3,1,0,0)**

An in-depth study of the processes, standards, and regulations associated with secure software scripting. Plan, manage, document, and communicate all phases of a secure software development cycle. Topics include security requirements, secure software life development cycle, threat modeling, and Security Technical Implementation Guides (STIGs).

Prerequisite: IS 115; and either CIT 217 or CSEC 104B all with a grade of C or better; or Instructor approval.

**CSEC 281B Ethical Hacking 3 (3,1,0,0)**

Introduces students to concepts of penetration testing to validate security measures and identify vulnerabilities. Topics include IT security awareness, data confidentiality, data integrity, legislated privacy policies, and individual and institutional liability. Explores methods used by intruders to gain access to computer resources and methods to prevent/reduce vulnerabilities.

Prerequisites: CIT 112B and 211 with a grade of C or better; or Instructor approval.



**CSEC 285B Evaluate Emerging Technologies 3 (3,1,0,0)**

A survey of emerging and leading technologies in the cybersecurity field. Research, evaluate, and recommend emerging technologies. Determine secure implementation strategies for best-fit business solutions. Topics include evolutionary technology development and adoption in organizations.

Prerequisite: CSEC 105B; and either CIT 274B or CSEC 281B all with a grade of C or better; or Instructor approval.

**CSEC 286B Network Analytics 3 (3,1,0,0)**

Create, analyze, and report network analytics for information security. Conduct network analytics using available tools and accepted methods for analyzing the seven domains of a typical Information Technology (IT) infrastructure. Monitoring, reporting, and escalation are emphasized.

Prerequisite: CIT 112B with a grade of C or better; or Instructor approval.

**CSEC 287B Security Analysis 3 (3,1,0,0)**

Conduct a vulnerability analysis upon a network in order to practice or refine the attack methodologies with the hacker tools and techniques to which the student was exposed during the various program courses. Prepare a written report of the security design, attack methodology, tools, and techniques. Focus on testing and the documentation process in order to prepare post-test reports.

Prerequisite: CIT 274B or CSEC 281B with a grade of C or better; or Instructor approval.

**CSEC 289B Malware Analysis 3 (3,1,0,0)**

Covers the tools and methodologies used to perform malware analysis on executables found on Windows systems using a practical, hands-on approach.

Prerequisite: CIT 217 or CSEC 104B with a grade of C or better; or Instructor approval.

**CSEC 290B Security Capstone 3 (3,1,0,0)**

A comprehensive project-driven study of network design and security with an emphasis on the integration of knowledge, practical applications, and critical thinking. Topics include advanced concepts in network and security design. This class must be taken in the student's final semester.

Prerequisite: Program Director approval.

**Culinary Arts****CUL 100 Sanitation/HACCP 2 (2,0,0,0)**

Theory and practice of Culinary Sanitation. Course covers proper food handling techniques, food borne illness prevention and introduction to "Hazard Analysis Critical Control Point" method of kitchen operations. Meets standards of National Sanitation Certification.

**CUL 110 Basic Cookery 4 (2,4,0,0)**

Introduction to culinary fundamentals, techniques and skills of modern cookery. Class covers procedures, ingredients and cooking theories.

**CUL 115 Introduction to Butchery and Charcuterie 3 (2,3,0,0)**

Students will learn proper receiving, inspection, and fabrication of meats, poultry, fish and shellfish. Basic techniques of smoking and force meat production will also be covered.

Prerequisite: CUL 110 and FAB 102.

**CUL 125 Principles of Baking 3 (2,3,0,0)**

This course will cover baking ingredients, use of equipment, proper storage and sanitation methods. Students will learn how to produce yeast products, pastries, pies, cookies and quick breads.

Prerequisite: CUL 110 with C- or higher; and FAB 102.

**CUL 130 Garde Manger 3 (2,3,0,0)**

Fundamentals of pantry with proper techniques and procedures in egg cookery, hot and cold sandwiches, lunch and dinner salads and dressings, basic garnishes, canapés and hot and cold appetizer production.

Prerequisite: CUL 110 and FAB 102.

**CUL 135 Breads of the World 3 (2,3,0,0)**

Students will learn measuring methods and scaling techniques, proper handling of yeast doughs, specialty doughs, different batters, and laminated doughs.

Prerequisite: CUL 110 with C- or higher; and FAB 102.

**CUL 140 Catering Operations 3 (2,3,0,0)**

This course teaches students how to plan and execute various types of catered events. The course will include planning, pricing, organization and preparation of the event. This includes planning and production of foods from assorted cuisines. Both front and back of the house operations will be covered.

Prerequisite: CUL 110 and FAB 102.

**CUL 175 Cake Design 3 (2,3,0,0)**

Students will learn basic mixing techniques, ingredients, measuring and scaling. Instruction includes production of icings, fillings, specialty cakes, and cake decorating.

Prerequisite: CUL 125 and FAB 102.

**CUL 200 Aromatics/Restaurant Experience 4 (2,4,0,0)**

Students will learn basic history and use of herbs and spices. They will learn how to enhance foods through proper usage. This class includes participation in actual restaurant operations.

Prerequisite: CUL 110 and FAB 102 both with a grade of C- or higher.



**CUL 215 Plated Desserts 3 (2,3,0,0)**

Introduction to hot, cold, and frozen desserts. Students will learn how to make ice creams, sorbets, and parfaits. This course will cover chocolate decorations and the creation of plate presentations using fresh fruits and dessert sauces.

Prerequisite: CUL 125 and FAB 102.

**CUL 220 International Cuisine 4 (2,4,0,0)**

Study of international foods with an emphasis on authentic ingredients and their proper usage. Participation in restaurant operations is included in this class.

Prerequisite: CUL 110 and 200; and FAB 102.

**CUL 225 Advanced Baking 3 (2,3,0,0)**

This course will cover advanced and specialty breads, brioche and coffee cakes. Students will also learn how to make puff dough pastries, quiches, custards, and ice cream and sorbets.

Prerequisite: CUL 125 and FAB 102.

**CUL 230 Pastry Arts 3 (2,3,0,0)**

Course study will include European Pastries. Emphasis will be placed on ingredients, techniques, measuring, sealing, assembly and storage.

Prerequisite: CUL 125 and FAB 102.

**CUL 235 Advanced Garde Manger 3 (2,3,0,0)**

Preparation techniques for force meats, mousses, galantines, terrines and pates. Perform cheese, salt, tallow and ice sculpting. Discuss hot and cold food competition guidelines.

Prerequisite: CUL 130 and FAB 102.

**CUL 240 French Cuisine 4 (2,4,0,0)**

Culinary fundamentals of classical cuisines are practiced in a weekly preparation of gourmet menus in a restaurant setting. Special emphasis is placed on proper cooking techniques.

Prerequisite: CUL 110 and CUL 200; and FAB 102 each with a grade of C- or higher.

**CUL 250 Saucier 3 (2,3,0,0)**

Basic sauce concepts and technical guidelines to produce high quality sauces. Covers stocks, thickening agents, reductions, liaisons, purees, mother sauces and compound derivations.

Prerequisite: CUL 110 and 200; and FAB 102.

**CUL 255B Retail Bakery Management 3 (2,3,0,0)**

This course introduces students to the application of baking and pastry arts production techniques in a wholesale and/or retail setting. The student is introduced to the theory regarding proper techniques for marketing and merchandising baked goods. Cost control for bakeries as well as recipe standardization and conversion, production planning, purchasing, costing and price for profit will be looked at. It will also feature the theory and practice of pastry buffet planning including themes and presentations.

Prerequisite: CUL 125 and FAB 102.

**CUL 260 Introduction to Chocolate 3 (2,3,0,0)**

This course will cover the use of tempered chocolate for dipping, molding, and decorating. Students will learn to develop creative skills using chocolate. This course also covers techniques in piping, modeling, cutouts and curls.

Prerequisite: FAB 102 and CUL 125 both with a minimum grade of C-.

**CUL 265 Introduction to Sugar Arts 3 (2,3,0,0)**

This course will cover the fundamentals of the art of pulled sugar including product identification, proper production techniques, and proper usage. Students will learn to create pulled sugar pieces, blown sugar pieces and poured pieces. They will also learn to use them in the design and production of centerpieces.

Prerequisite: CUL 125 and FAB 102 both with a grade of C- or higher.

**CUL 270 Ice Carving 1 (1,1,0,0)**

A basic class devoted to developing the skills necessary to plan and produce functional and decorative Ice Sculptures. The class covers the safe use of hand and power tools as well as methods and procedures for transport and display.

**CUL 275 Advanced Cake Design 3 (2,3,0,0)**

This course covers advanced techniques in cake decorating. Students will learn how to make advanced icings such as fondant and royal icing, and how to assemble and decorate advanced specialty and wedding cakes.

Prerequisite: CUL 175.

**CUL 280B Principles of Quantity Baking 3 (2,3,0,0)**

This course will emphasize fundamental baking and pastry production techniques used in wholesale and/or retail bakeries. The student will participate in the production of scratch baking and commercial product usage. Group practice skills in team building and communication will be covered. American and European style pastry products will be featured. Baker's percentages and conversion will be emphasized.

Prerequisite: CUL 125 and FAB 102.

**CUL 285B Advanced Chocolate 3 (2,3,0,0)**

The various methods for tempering and the different types of chocolate will be reviewed. Students will learn advanced molding, shaping and texturing techniques. Creating an advanced showpiece will also be covered.

Prerequisite: CUL 260 and FAB 102.

**CUL 290 Culinary Competition 3 (2,4,0,0)**

Covers both category A and B for food shows based on the American Culinary Federation guidelines. Student may choose either category for the practical hands-on.

Prerequisite: FAB 102.





**CUL 295 Work Experience in Culinary Arts 1 (0,0,0,1)**

In addition to the academic requirements, the Department of Hospitality Management requires 200 hours of acceptable employment in the hospitality industry. This work experience will be measured qualitatively as well as quantitatively. The work experience requirement should be met during the school year or in summers. Students who plan to transfer to UNLV will be able to transfer a maximum of 500 hours of employment toward UNLV's 1000-hour employment requirement. International students must go to the office of International Student Services to verify employment eligibility and obtain authorization. This course can be repeated up to a maximum of four credits. Grade will be given upon verification of employment.

**Dental Assisting****DA 106B Radiation Protection for Dental Auxiliaries 1 (1,0,0,0)**

Course designed to acquaint the participant with radiation hazards and protection services for patient and operator.

**DA 107B Intraoral Radiographic Technique 2 (1,2,0,0)**

Production of dental radiographs including processing, mounting and eliminating errors. Participants will expose, mount and critique a complete radiographic survey of a mannequin and selected patients.

**DA 108B Introduction to Dental Assisting 2 (2,0,0,0)**

Overview of the dental occupations, dental terminology, dental history, interpersonal relationships and employment requirements.

Prerequisite: Admission to the Dental Assisting Program.

Corequisite: DA 115B and 118B and 124B.

**DA 115B Dental Health Education 1 (1,0,0,0)**

Principles of preventive dentistry to include: nutritional physiology, essentials and counseling effect of nutrition on dental health; epidemiology, etiology and prevention of dental disease; design and management of a plaque control program and additional preventive measures, i.e., fluoride and sealant utilization.

Prerequisite: Admission to the Dental Assisting Program.

Corequisite: DA 108B and 118B and 124B.

**DA 118B Dental Materials for Dental Assistants 3 (2,3,0,0)**

Composition, characteristics, physical properties and uses of materials commonly used in dental practice. Includes laboratory practice in manipulating dental materials.

Prerequisite: Admission to the Dental Assisting Program.

Corequisite: DA 108B and 115B and 124B.

**DA 119B Dental Chairside Procedures 4 (2,8,0,0)**

Development of the dexterity needed to assist in four- and six-handed dentistry, demonstrating proper posture and form at chairside. Positive communication, sterilization, disinfection, and neatness are stressed, plus knowledge of instruments, dental operative procedures, manipulation of cements, bases and impression materials.

Prerequisite: DA 108B and 115B and 118B and 124B with a grade of C or higher.

Corequisite: DA 123B and 128B.

**DA 120B Introduction to Dental Insurance 1 (1,0,0,0)**

Introduction to dental insurance processing including alternative payment plans. Introduction to CDT coding.

**DA 123B Practice Management and Procedures 3 (3,0,0,0)**

Principles of dental office routine, reception duties, bookkeeping, appointment control, correspondence, telephone technique, filing, interview techniques, and computer applications.

Prerequisite: DA 108B and 115B and 118B and 124B with a grade of C or higher.

Corequisite: DA 119B and 128B.

**DA 124B Integrated Science for Dental Assistants 4 (4,0,0,0)**

Anatomy and physiology of the body systems, with special emphasis on the head and neck. Embryology, histology and tooth morphology are included.

Prerequisite: Admission to the Dental Assisting Program.

Corequisite: DA 108B and 115B and 118B.

**DA 126B Clinical Externship 6 (1,0,0,20)**

Supervised clinical dental assisting experience in selected private dental practices and public clinics.

Prerequisite: DA 119B and 123B and 128B with a grade of C or higher.

Corequisite: DA 136B.

**DA 128B Dental Radiology 3 (2,3,0,0)**

An introduction to basic concepts of radiology, including radiation protection, intraoral and panoramic techniques of film exposure, processing and mounting.

Prerequisite: DA 108B and 115B and 118B and 124B each with a grade of C or higher.

Corequisite: DA 119B and 123B.



**DA 136B Dental Specialties 3 (3,0,0,0)**

A survey of the role of the dental assistant in the specialties of dentistry including orthodontics, pedodontics, oral surgery, periodontics, endodontics, and prosthodontics.

Prerequisite: DA 119B and 123B and 128B each with a grade of C or higher.

Corequisite: DA 126B.

**DA 299B Independent Study 1-5 (1-5,0,0,0)**

Selected topics of interest to dental assisting students.

## Dance

**DAN 101 Dance Appreciation 3 (3,0,0,0)**

A multicultural exploration of the world's first and most universal art form. Ballet history, sex and social dance, the politics of dance and twentieth century self-expression among others are investigated through lecture, video and demonstration.

**DAN 108 Pilates I 1 (1,0,0,0)**

Pilates based floor work emphasizing increased flexibility and strength with application to dancers and non-dancers alike. This course may be repeated to a maximum of four credits.

**DAN 115 Middle Eastern Dance I 1 (1,2.5,0,0)**

Learn to isolate and undulate gracefully to Middle Eastern music. Explore the ancient arts of belly dance and the people throughout history who have contributed to its evolution. This course may be repeated to a maximum of four credits.

**DAN 119 Swing Dance 1 (1,2.5,0,0)**

Further development of swing dance styles introduced in beginning ballroom dance. This course may be repeated to a maximum of four credits.

**DAN 125 Ballroom Dance (Beginning) 1 (1,2.5,0,0)**

Instruction in the major ballroom dances, including waltz, swing, fox trot, tango, rumba, and the cha-cha. This course may be repeated to a maximum of four credits.

**DAN 126 Ballroom Dance (Beginning/Intermediate) 1 (1,2.5,0,0)**

Continuation of beginning ballroom dance. This course may be repeated to a maximum of four credits.

**DAN 128 Latin Dance 1 (1,2.5,0,0)**

Further development of Latin dances introduced in beginning ballroom dance. This course may be repeated to a maximum of four credits.

**DAN 132 Jazz Dance (Beginning) 1 (1,2.5,0,0)**

Beginning techniques of jazz dance. This course may be repeated to a maximum of four credits.

**DAN 133 Jazz Dance (Beginning/Intermediate) 1 (1,2.5,0,0)**

Continuation of beginning jazz dance. This course may be repeated to a maximum of four credits.

**DAN 135 Ballet (Beginning) 1 (1,2.5,0,0)**

Beginning techniques and theory of classical ballet. This course may be repeated to a maximum of four credits.

**DAN 136 Ballet (Beginning/Intermediate) 1 (1,2.5,0,0)**

Continuation of beginning ballet with more demanding concepts and skills. This course may be repeated to maximum of four credits.

**DAN 138 Modern Dance (Beginning) 1 (1,2.5,0,0)**

Introductory technique and theory of modern concert dance. This course may be repeated up to a maximum of four credits.

**DAN 139 Modern Dance (Beginning/Intermediate) 1 (1,2.5,0,0)**

Continuation of Modern Dance (Beginning). This course may be repeated to a maximum of four credits.

**DAN 144 Tap Dance (Beginning) 1 (1,2.5,0,0)**

Beginning techniques of tap dancing. This course may be repeated to a maximum of four credits.

**DAN 145 Tap Dance (Beginning/Intermediate) 1 (1,2.5,0,0)**

Continuation of beginning tap dance. This course may be repeated to a maximum of four credits.

**DAN 146 Musical Dance Theater 1 (1,0,0,0)**

An historical overview of dance in musical theater. Includes a study of styles of major choreographers.

**DAN 160B Hip Hop Dance 1 (1,2.5,0,0)**

Beginning level Hip Hop. Previous experience in dance not necessary. Offers foundation for dance by putting into practice basic techniques for Hip Hop. Particular emphasis on student's physical awareness, expressiveness, and grasp of material. This course may be repeated to a maximum of four credits.

**DAN 175 Yoga for Dancers 1 (1,2.5,0,0)**

Yoga techniques of stretching and breathing applied to the dancer's instrument with resultant stress relief, increased flexibility, and enhanced physical alignment. This course may be repeated to a maximum of four credits.

**DAN 188 Dance Improvisation 2 (2,1.5,0,0)**

Development of performance and compositional skills through the exploration and analysis of basic dance elements including time, shape, space, motion and dynamics.



**DAN 215 Middle Eastern Dance II 1 (1,2.5,0,0)**

A continuation of learning to isolate and undulate gracefully to Middle Eastern music. A further exploration of the ancient arts of belly dance and the people throughout history who have contributed to its evolution. Course will build on the fundamentals of Middle Eastern dance technique. This course may be repeated to a maximum of four credits.

**DAN 225 Ballroom Dance (Intermediate) 1 (1,2.5,0,0)**

Intermediate techniques of ballroom dance. This course may be repeated to a maximum of four credits.

**DAN 232 Jazz Dance (Intermediate) 1 (1,2.5,0,0)**

Intermediate techniques of jazz dance. This course may be repeated to a maximum of four credits.

**DAN 235 Ballet (Intermediate) 1 (1,2.5,0,0)**

Intermediate technique and theory of classical ballet. This course may be repeated to a maximum of four credits.

**DAN 236 Ballet (Intermediate/Advanced) 1 (1,2.5,0,0)**

A continuation of Ballet (Intermediate). This course may be repeated to a maximum of four credits.

**DAN 238 Modern Dance (Intermediate) 1 (1,2.5,0,0)**

Intermediate technique and theory of modern concert dance. This course may be repeated to a maximum of four credits.

**DAN 239 Modern Dance (Intermediate/Advanced) 1 (1,2.5,0,0)**

Continuation of Modern Dance (Intermediate). This course may be repeated to a maximum of four credits.

**DAN 244 Tap Dance (Intermediate) 1 (1,2.5,0,0)**

Intermediate techniques of tap dance. This course may be repeated to a maximum of four credits.

**DAN 245 Repertory Tap Dance 1 (1,2.5,0,0)**

Learning of tap repertory and new choreography leading to performance opportunities. This course may be repeated to a maximum of four credits.

**DAN 281 Dance Performance 1 (1,2.5,0,0)**

Learning of repertory and new choreography leading to formal and informal performance opportunities. This course may be repeated to a maximum of four credits.

**DAN 284 Dance Project 1 (0,3,0,0)**

Complete production of a dance piece including choreography, sound score selection, costume design, and all production aspects to result in performance of the piece in the CSN Student Dance Concert. Restricted to Dance Certificate of Achievement candidates. This course may be repeated to a maximum of four credits.

**DAN 287 Concert Dance Company 1 (1,2.5,0,0)**

Professionally structured rehearsals of repertory and new choreography in preparation for formal performances, educational outreach programs and possible touring. Students should also be registered for a combination of technique courses: DAN 138 and DAN 235, or DAN 136 and DAN 238, or DAN 235 and DAN 238. Class size for DAN 287 is limited and audition will be the first day of class.

**DAN 288 Choreography 2 (2,1.5,0,0)**

Introduction to the art of making dances with emphasis on the manipulation of time, shape, space, motion and dynamics.

**Dental Hygiene****DH 100 Introduction to Dental Hygiene 1 (1,0,0,0)**

Introduction to dental hygiene as a profession; roles and responsibilities, licensing and regulations. Emphasis on professional writing requirements, cultural awareness, and future directions in the field. Field observation required.

Prerequisite: ENG 100 or 101 or 113 with a C or better; and either ENG 102 or 114 with a C or better.

**DH 102 Oral Biology 3 (2,3,0,0)**

Histology and embryology of oral structural formation. Clinical recognition of normal oral structures, study of physiological and structural functions of the teeth, head and neck, and supporting tissues.

Prerequisite: Admission to the Associate of Science Dental Hygiene Program; and BIOL 223 and 224 both with a grade of C or higher.

**DH 104 Dental Hygiene I 3 (3,0,0,0)**

Introduction to dental hygiene practice. Use and care of instruments, medical and dental histories, emergencies, infection control, appointment procedures and clinical operations.

Prerequisite: Admission to the Associate of Science Dental Hygiene Program.

**DH 105 Introduction to Clinical Practice 2 (0,0,7,1)**

Clinical application of diagnostic, preventive and therapeutic procedures utilized in patient care by a dental hygienist.

Prerequisite: Admission to the Associate of Science Dental Hygiene Program.

**DH 107 Legal and Ethical Implications in Dental Hygiene 2 (2,0,0,0)**

Introduction to professional, legal, and ethical concepts in Dental Hygiene.

Prerequisite: Admission to the Associate of Science Dental Hygiene Program.



**DH 110 Concepts of Oral Health 2 (1,3,0,0)**

Basic concepts of oral health care, adjunctive aids and foundation of preventive strategies. Introduction to product evaluation, disease process, needs assessment, behavior modification, learning principles, deposits, stains and fluoride.

Prerequisite: Admission to the Associate of Science Dental Hygiene Program.

**DH 112 Oral Radiology 3 (2,3,0,0)**

A study of the theory of radiology, the techniques of film exposure, processing, mounting and interpretation. Radiation dosage and hazards as well as protection mechanisms for patient and operator are stressed.

Prerequisite: Admission to the Associate of Science Dental Hygiene Program.

**DH 115 Clinical Practice I 3 (0,0,10,2)**

Practice in performing oral prophylaxis, sterilization, patient management, patient education, fluoride use, charting, inspection of teeth, patient scheduling and recare systems.

Prerequisite: DH 104 and 105.

**DH 116B Supervised Clinical Practice 1 (0,0,4,0)**

This course is designed to provide continuity of clinical practice. The student will continue to improve clinical skills. May be repeated for a maximum of five credits.

**DH 117 Periodontics I 2 (1,0,3,0)**

Concepts and practice of advanced instrumentation, instrument sharpening, periodontal debridement, power scaling, chemotherapeutics and desensitizing agents, air-jet, sealant placement, soft tissue curettage, dental implants and lasers.

Prerequisite: DH 104 and Admission to the Associate of Science Dental Hygiene Program.

**DH 119 General and Oral Pathology for Dental Hygienists 2 (2,0,0,0)**

The fundamentals of microscopic and gross pathology disease, repair, healing and regression. Special emphasis: diseases, developmental disturbances, infection, lesions, and injuries to the oral cavity.

**DH 122 Nutritional Aspects in Dentistry 2 (2,0,0,0)**

Introduction to principles of basic biochemistry and the relationship of nutrition to oral health. Application of nutritional education to dental hygiene practice: provide nutritional assessment.

Prerequisite: Admission to the Associate of Science Dental Hygiene Program.

**DH 202 Pharmacology 2 (2,0,0,0)**

A study of drugs by groups with special emphasis on those used in dentistry including their physical and chemical properties, dosage and therapeutic effects.

Prerequisite: Admission to the Associate of Science Dental Hygiene Program.

**DH 203 Special Patients 2 (2,0,0,0)**

Considerations in the treatment of patients with specific physical and mental challenges with a special emphasis on the management of the geriatric patient.

**DH 208 Community Dental Health I 2 (2,0,0,0)**

Functions of health care agencies, literature, epidemiology of dental diseases, community preventive measures, program planning, the geriatric population and dental health educational methods.

Prerequisite: Admission to the Associate of Science Dental Hygiene Program.

**DH 209 Pain and Anxiety Control 3 (2,0,3,0)**

Administration of local anesthetics and nitrous oxide/oxygen analgesia. Pharmacological agents, physical and emotional evaluation of patients, anatomy and neurophysiology. Management of related medical emergencies.

**DH 210 Clinical Dental Hygiene II 4 (0,0,14,2)**

Clinical application of diagnostic, preventive, and therapeutic procedures utilized in patient care by a dental hygienist.

Prerequisite: DH 115.

**DH 211 Dental Materials and Techniques for Dental Hygienists 2 (1,3,0,0)**

Study of dental materials including physical and chemical properties, manipulation, utilization, and application in dental and dental hygiene procedures.

**DH 212 Periodontic Principles II 2 (2,0,0,0)**

Fundamental principles of periodontics, etiology, histo-pathology, classification of gingival and periodontal diseases, prevention and non-surgical treatment.

**DH 216 Principles of Dental Practice 1 (1,0,0,0)**

Concepts of dental office management, productivity, marketing, interviewing and responsibilities of professionals.

Prerequisite: Admission to the Associate of Science Dental Hygiene Program.

**DH 217 Periodontics III 1 (1,0,0,0)**

Advanced study of periodontology with special emphasis on new surgical modalities and equipment. Orientation to all aspects of periodontal practice.

**DH 219 Community Dental Health Field Experience 1 (0,0,4,0)**

Prepares student to function as an effective oral health educator, practitioner, and resource person in public health settings.

Prerequisite: DH 208.



**DH 220 Clinical Dental Hygiene III 4 (0,0,14,2)**

A continuation of Clinical Dental Hygiene II.

Prerequisite: DH 210.

**DH 296 Board Review 1 (1,0,0,0)**

Covers a review of topics in preparation for the Dental Hygiene National Board Examination.

**DH 297B Pain Management for the Dental Professional 3 (1,0,6,0)**

Administration of local anesthetics and nitrous oxide analgesia. Pharmacologics, patient evaluation, anatomy and neurophysiology, management of medical emergencies.

Prerequisite: Program Director approval.

**DH 298B Dental Hygiene Career Skills 2 (1,0,3,0)**

Review of essential dental hygiene skills for clinical examination preparation or re-entry into the dental hygiene profession. Graded Pass/Fail.

Prerequisite: Program Director approval.

**DH 299B Independent Study 1-5 (1-5,0,0,0)**

Covers selected topics of interest to dental hygiene students including review for Dental Hygiene National Board Examination. Graded Pass/Fail.

Prerequisite: Instructor and Department Chair approval.

**DH 303 Prevention and Management of Medical Emergencies 2 (2,0,0,0)**

Provides a foundation for critical decision making in the management of medically compromised patients during oral health care. Emphasis on precautions and treatment alterations for patients with medical complications and protocols managing a medical emergency.

Prerequisite: Admission to the B.S. Dental Hygiene program.

**DH 304 Dental Hygiene Theory I 3 (3,0,0,0)**

Introduction to dental hygiene practice. Use and care of instruments, medical and dental histories, emergencies, infection control, appointment procedures and clinical operations.

Prerequisite: Admission to the B.S. Dental Hygiene program.

Corequisite: DH 305.

**DH 305 Pre-Clinical Practice 3 (0,0,11,1)**

Clinical application of diagnostic, preventive, and therapeutic procedures utilized in patient care by a dental hygienist.

Prerequisite: Admission to the B.S. Dental Hygiene program.

Corequisite: DH 304.

**DH 306 Preventive Oral Health Concepts 2 (1,3,0,0)**

Basic concepts of oral health care, adjunctive aids and foundation of preventive strategies. Introduction to product evaluation, disease process, needs assessment, behavior modification, learning principles, deposits, stains and fluoride.

Prerequisite: Admission to the B.S. Dental Hygiene program.

**DH 307 Legal and Ethical Concepts in Dentistry 2 (2,0,0,0)**

Introduction to professional, legal, and ethical concepts in the dental professions.

Prerequisite: Admission to the B.S. Dental Hygiene program.

**DH 308 Dental Materials 2 (1,3,0,0)**

Study of dental materials including physical and chemical properties, manipulation, utilization, and application in dental and dental hygiene procedures.

Prerequisite: Admission to the B.S. Dental Hygiene program.

**DH 311 Pharmacology for Dental Hygienists 2 (2,0,0,0)**

A study of drugs by groups with special emphasis on those used in dentistry including their physical and chemical properties, dosage, and therapeutic effects.

Prerequisite: Admission to the B.S. Dental Hygiene program.

**DH 312 General and Oral Pathology for the Dental Hygienist 2 (2,0,0,0)**

Fundamentals of microscopic and gross pathology disease, repair, healing and regression period. Special emphasis: diseases, developmental disturbances, infection, lesions, and injuries to the oral cavity.

Prerequisite: Admission to the B.S. Dental Hygiene program.

**DH 313 Periodontic Principles I 2 (1,0,3,0)**

Introduction to periodontal scaling and debridement, associated equipment, and procedures.

Prerequisite: Admission to the B.S. Dental Hygiene program.

**DH 314 Oral Radiology and Interpretation 3 (2,3,0,0)**

Theory and practice of radiology, image production, interpretation, and radiation safety.

Prerequisite: Admission to the B.S. Dental Hygiene program.

**DH 315 Clinical Dental Hygiene I 3 (0,0,10,2)**

Continued practice of the dental hygiene process of care, instrumentation skills, and professional judgement with a focus on safe, initial ability.

Prerequisite: Admission to the B.S. Dental Hygiene program.

**DH 400 Leadership and Group Dynamics 2 (2,0,0,0)**

Students will develop skills in leadership, communication, and team building in preparation for taking on administrative roles within the dental profession.



**DH 401 Pain Control Methods 2 (1,3,0,0)**

Administration of local anesthetics and Nitrous Oxide/Oxygen Analgesia pain control methods, prevention, and management of related medical emergencies.

Prerequisite: Admission to the B.S. Dental Hygiene program.

**DH 402 Patient Diversity and Cultural Awareness 2 (2,0,0,0)**

Study of the physical, mental and social aspects of diversity with emphasis on awareness of patient and population needs. Investigations into cultural awareness strategies to address needs and behavior change.

**DH 403 Periodontic Principles II 2 (2,0,0,0)**

Fundamental principles of periodontics, etiology, histopathology, classification of gingival and periodontal diseases, prevention, and non-surgical treatment.

Prerequisite: Admission to the B.S. Dental Hygiene program.

**DH 404 Research Methodology 2 (2,0,0,0)**

Fundamental and working knowledge of the scientific method employed in oral health research. Critical analysis of research. Utilization of scientific research and supporting evidence-based publications.

Prerequisite: Admission to Dental Hygiene Bachelor of Science Degree Program.

**DH 405 Clinical Dental Hygiene II 4 (0,0,14,2)**

Enhanced practice of the dental hygiene process of care: use of diagnostic, preventive, and therapeutic procedures and professional judgement with a focus on refining ability.

Prerequisite: Admission to the B.S. Dental Hygiene program.

**DH 406 Future Directions in Dental Hygiene 2 (2,0,0,0)**

Exploration of career options to facilitate selection of a specialization track. Emphasis placed on current literature and policies that affect the future of the dental hygiene profession. Critical analysis of existing dental practice acts.

Prerequisite: Admission to the Bachelor of Science Dental Hygiene Degree Program.

**DH 407 Dental Public Health Concepts 2 (2,0,0,0)**

Overview of public health care principles and community dental health care planning.

Prerequisite: Admission to the B.S. Dental Hygiene program.

**DH 408 Introduction to Teaching Methodologies 2 (2,0,0,0)**

Introduction to the basic concepts of teaching. Includes teaching philosophies and methodologies. Emphasis on units of learning, learning objectives, and lesson plans.

**DH 411 Dental Public Health Field Experience 1 (0,0,4,0)**

Off campus clinical and oral health promotion experience in dental public health settings.

Prerequisite: Admission to the B.S. Dental Hygiene program.

**DH 412 Dental Public Health Administration 2 (2,0,0,0)**

Foundational concepts of leadership skills as applied to oral health programs, program management, legal, financial and ethical considerations. Communication with the grant writing process is presented.

Prerequisite: DH 402 and 404; and Admission to Dental Hygiene Bachelor of Science Degree Program.

**DH 413 Periodontic Principles III 1 (1,0,0,0)**

Advanced study of periodontology with special emphasis on new surgical modalities and equipment. Orientation to all aspects of periodontal practice.

Prerequisite: Admission to the B.S. Dental Hygiene program.

**DH 414 Principles of Dental Hygiene Practice 1 (1,0,0,0)**

Overview of practice settings, employment and supervision protocols, productivity, and responsibilities of ethical practice.

Prerequisite: Admission to the B.S. Dental Hygiene program.

**DH 415 Clinical Dental Hygiene III 4 (0,0,14,2)**

Integrated practice of the dental hygiene process of care: use of diagnostic, preventive, and therapeutic procedures and professional judgement with a focus on competent ability.

Prerequisite: Admission to the B.S. Dental Hygiene program.

**DH 418 Advanced Education Concepts 2 (2,0,0,0)**

Emphasis will be placed on curriculum planning and implementation. New classroom technology will be emphasized.

Prerequisite: DH 408 and Admission to the Dental Hygiene Bachelor of Science Degree Program.

**DH 422 Oral Epidemiology and Biostatistics 2 (2,0,0,0)**

Principles and methods of epidemiologic investigation and the use of classical statistical approaches to describe the oral health of populations.

Prerequisite: DH 402; or Instructor approval; and Admission to the Dental Hygiene Bachelor of Science Degree Program.



**DH 428 Clinical/Laboratory Teaching 2 (1,0,0,4)**

Provides students with knowledge and skills in clinical instruction. Psychomotor skill development, analysis and remediation of performance problems. Includes seminar and student teaching externship. Drug test required for externship.

Prerequisite: DH 418 and Admission to the Dental Hygiene Bachelor of Science Degree Program.

**DH 440 Capstone Seminar I 1 (0,0,0,3)**

Provides the opportunity to develop, implement, and evaluate a culminating project to demonstrate achievement of program outcomes.

Prerequisite: DH 400 and 402 and 404 and 406 and 408.

**DH 442 Capstone Seminar II 2 (0,0,0,6)**

Provides the opportunity to develop, implement, and evaluate a culminating project to demonstrate achievement of program outcomes. Limited to Bachelor of Science Dental Hygiene degree-completion students.

Prerequisite: DH 400 and 402 and 404 and 406 and 408.

**Diesel Technology****DT 104 Diesel Equipment Service 4 (1,6,0,0)**

Preventive maintenance procedures of the major components of heavy equipment, use of hand and power tools service manuals, precision measurement, and equipment out of service standards.

**DT 115 Diesel/Heavy Equipment Electrical Systems 4 (1,6,0,0)**

This course introduces electrical systems on modern trucks and construction equipment. Theory of electricity and electronics, types of electrical circuits, wiring, components and use of test equipment are covered as well as diagnostics of batteries, starting and charging systems.

Prerequisite: DT 104.

**DT 117 Advanced Diesel/Heavy Equipment Electronics 4 (1,6,0,0)**

Advanced troubleshooting of AC and DC, electronic circuits, on board computers, electronically controlled components including convenience accessories and hydraulic controls. This course prepares the student for the ASE T6 certification exam.

Prerequisite: DT 115 or Instructor approval.

**DT 136 Diesel Engine Repair I 4 (1,6,0,0)**

Students develop basic knowledge of design, construction and operating principles of diesel engines. This course emphasizes service, maintenance, diagnosis and repair of internal engine components including lubrication and cooling systems.

Prerequisite: DT 104.

**DT 138 Diesel Engine Repair II 4 (1,6,0,0)**

Students study components, maintenance, diagnostics and repair of modern diesel engines with a specific focus on intake, fuel delivery, and exhaust systems. This course prepares the student for the ASE T2 certification exam.

Prerequisite: DT 136 or Instructor approval.

**DT 145 Diesel Brake Systems 4 (1,6,0,0)**

This course provides students with knowledge of medium and heavy duty hydraulic and airbrake systems including study in components, maintenance, diagnostics, and repair. This course prepares the student for the ASE T4 certification exam.

Prerequisite: DT 115.

**DT 150B Diesel Hydraulics 4 (1,6,0,0)**

Presents the theoretical basis for hydraulic circuitry in heavy equipment. Attention is given to circuit components and how they work on heavy diesel equipment. Assembly, disassembly, and troubleshooting are emphasized.

Prerequisite: DT 104.

**DT 155 Steering, Suspension and Hydraulic Directional Controls 4 (1,6,0,0)**

Prepares the student with the knowledge and skills needed to adjust, diagnose, service and repair mechanical and hydraulic directional control, as well as suspension systems found on trucks and construction equipment. This course prepares the student for the ASE T5 certification exam.

Prerequisite: DT 104.

**DT 165 Diesel/Heavy Equipment Heating, Air Conditioning 4 (1,6,0,0)**

This course covers theory, diagnostics, maintenance and service of air conditioning equipment found on truck cabs and off-road equipment. Emphasis is placed on diagnosis of various refrigerant systems while demonstrating knowledge and practice of EPA compliance requirements.

Prerequisite: DT 115.

**DT 205 Diesel/Heavy Equipment Drive Train and Axles 4 (1,6,0,0)**

This course includes the study of heavy truck chassis heavy duty transmissions, drivelines, power dividers, differentials as well as torque converters, torque dividers, power shift transmissions, planetary and gear final drives, tracks, rollers and idlers. Emphasis is placed on troubleshooting and service procedures required.

Prerequisite: DT 104.

**DT 295 Internship Co-Op I 2 (0,0,0,10)**

Cooperative education course, designed to provide the student with on-the-job supervised and educationally directed work experience. Each course except DT 295 will have a prerequisite of successful completion of the preceding Work Experience course.



**DT 296 Internship Co-Op II 2 (0,0,0,10)**

Cooperative education course, designed to provide the student with on-the-job supervised and educationally directed work experience. Each course except DT 295 will have a prerequisite of successful completion of the preceding Work Experience course.

**DT 297 Internship Co-Op III 2 (0,0,0,10)**

Cooperative education course, designed to provide the student with on-the-job supervised and educationally directed work experience. Each course except DT 295 will have a prerequisite of successful completion of the preceding Work Experience course.

**Early Childhood Education****ECE 121 Parent Caregiver Relationships 1 (1,0,0,0)**

A course designed for Early Childhood students in which they can acquire various communications skills to enhance parent/caregiver relationships.

**ECE 122 Observation Skills 1 (1,0,0,0)**

A course designed to expose parents and teachers to various formal and informal observation methods that will enhance their observation and recording skills.

**ECE 123 Health and Nutrition for Young Children 1 (1,0,0,0)**

Study includes nutrition, health, safety, infectious disease, first aid, and preventative measures for accidents and spread of diseases.

**ECE 127 Role of Play for Infants and Toddlers 1 (1,0,0,0)**

Emphasis on techniques and play materials for use in the home and child care setting which will foster the child's total development from birth to 2 1/2 years.

**ECE 130 Infancy 3 (3,0,0,0)**

Study of social, emotional, language and sensorimotor development in infancy. Emphasis placed on skills and facilitating optimum infant development.

**ECE 134 Guiding Infant/Toddlers 1 (1,0,0,0)**

A guidance course based on knowledge of developmental levels coupled with realistic expectations for behavior. Emphasis on positive teaching and parenting approaches.

**ECE 138 Step Families 1 (1,0,0,0)**

A course for parents and teachers focusing on the unique dynamics of step families, and the special issues of adults and children living in them.

**ECE 151 Math in the Preschool Curriculum 1 (1,0,0,0)**

A study of mathematical development in young children. Emphasis on teaching techniques, materials and activities for supporting math development.

**ECE 152 Science in the Preschool Curriculum 1 (1,0,0,0)**

Study of young child's emerging awareness of the biological and physical environment. Emphasis on supportive teaching techniques, materials and activities.

**ECE 153 Language Development in the Preschool 1 (1,0,0,0)**

Study of the development of language in preschool children. Exposure to activities and materials for fostering development of receptive and expressive language skills in the preschool.

**ECE 154 Literature for Preschool Children 1 (1,0,0,0)**

Brief survey of literature and poetry for use with preschool children. Techniques for integrating literature into the preschool curriculum will be examined.

**ECE 155 Literacy and the Young Child 1 (1,0,0,0)**

The development of learning activities and materials which augment and enhance the development of literacy skills in the young child.

**ECE 156 Music in the Preschool Curriculum 1 (1,0,0,0)**

Teaching techniques and music activities for young children. Focus on listening, singing, rhythm and creative movement.

**ECE 157 Art in the Preschool Curriculum 1 (1,0,0,0)**

A study of artistic/creative development. Emphasis on teaching techniques for supporting and enhancing artistic/creative development using a range of materials and activities.

**ECE 158 Activities for Physical Development in Young Children 1 (1,0,0,0)**

A study of teaching techniques, materials and activities for supporting and enhancing gross motor development with a focus on both patterned and creative movement.

**ECE 159 After School Activities 1 (1,0,0,0)**

Developing curriculum for the school-aged child in after school programs. Emphasis on appropriate teaching techniques, materials, activities and nutritious snacks.

**ECE 162 Teaching the Two-Year Old 1 (1,0,0,0)**

Study of the physical, cognitive, and social-emotional characteristics of two-year old children. Emphasis on choosing learning materials and equipment and on planning appropriate activities for two-year olds in music, art, physical education, math, science, language development, literature, and reading readiness.





**ECE 163 The School Age Child 3 (3,0,0,0)**

Study of the social, emotional, physical and cognitive development of the child from 6-12 years with emphasis on facilitation of optimum development.

**ECE 200 The Exceptional Child 3 (3,0,0,0)**

A survey of the characteristics and requirements of children (infancy through age 8) with special needs. Focus on the various exceptionalities, legislation affecting persons with special needs, and the impact of special needs upon the family and the individual.

**ECE 202 Understanding Human Growth and Development 3 (3,0,0,0)**

The class will provide a comprehensive introduction to the principles and basic concepts of child development. The course integrates the dimensions of physical, cognitive and psychosocial development into each major state of the child's life – prenatal, infancy, preschool years, middle childhood and adolescence.

**ECE 204 Principles of Child Guidance 3 (3,0,0,0)**

A focus on support and enhancement of the child's social/emotional development, social skills, and self-esteem through the use of positive guidance.

**ECE 231 Preschool Practicum 3-4 (0,0,0,9-12)**

A student teaching experience either on or off campus. Instructor approval required. Must be concurrently enrolled in ECE 245 Practicum Seminar.

**ECE 232 Practicum: Infant and Toddler 3-4 (0-1,0,0,6-12)**

A student teaching experience in an infant/toddler setting either on or off campus. Concurrent enrollment in ECE 245 MAY be required. Instructor approval.

**ECE 233 Practicum in Early Childhood Special Education 3 (0,0,0,9)**

A practical course focusing on the development of techniques, strategies and adaptations needed to implement the inclusion of pre-school children with special needs.

**ECE 235 Adapting Curricula for Young Children with Special Needs 3 (2,3,0,0)**

Course focuses on adapting typical early childhood curricula to meet the needs of infants, toddlers and preschoolers with special needs.

Prerequisite: ECE 200 and 251 both with a grade of C- or higher.

**ECE 238 Family and Community Relations 1 (1,0,0,0)**

Requires participation in the Community College Early Childhood Education Lab. Class, conferences, discussion and community resources studied and applied to home and school needs. May repeat course once.

**ECE 240 Administration of the Preschool 3 (2,3,0,0)**

Study of the principles and practices of preschool organization and administration.

**ECE 241 Practicum for Teacher Aides 4 (0,0,0,16)**

A teaching experience as an aide in an elementary classroom.

Corequisite: ECE 245 and Department approval.

**ECE 245 Practicum Seminar 2 (2,0,0,0)**

A required seminar for students concurrently enrolled in ECE 231 or ECE 241. Instructor approval.

**ECE 250 Introduction to Early Childhood Education 3 (3,0,0,0)**

An introduction to the field of early childhood education for children ages 3 - 8. Emphasis on the diverse physical, cognitive, social/emotional, and unique educational need of young children.

**ECE 251 Curriculum in Early Childhood Education 3 (3,0,0,0)**

Study of curriculum models; developmental learning theories; and curriculum planning and implementation in early childhood programs.

Prerequisite: ECE 250 with a grade of C- or higher.

**ECE 252 Infant/Toddler Curriculum 3 (3,0,0,0)**

Study of curriculum for children age 0-2 1/2 years emphasizing physical, emotional, social, and cognitive development through daily routines and planned activities.

**ECE 254 Applied Child Guidance 3 (3,0,0,0)**

A course focusing on the practical application of positive guidance methods and the concept of family systems.

Prerequisite: ECE 204.

**ECE 260 Children's Literature 3 (3,0,0,0)**

Survey of children's literature and poetry for teachers and parents. Emphasis on developing literacy and strategies for integrating children's literature into school and home environments.

**ECE 273 Individual Child and Community 3 (3,0,0,0)**

Study of the impact growing up in a changing world has on the development of children. Emphasis on the process of socialization.

**ECE 274 Individual Child and Family 3 (3,0,0,0)**

Study of diverse family systems and ways they evolve, nurture and socialize children to function in our diverse society. Explore strategies to interface with diverse families.



**ECE 285 Current Issues in Infancy 2 (2,0,0,0)**

Study of the current trends and issues in infancy and their impact on working with infants.

### Economics

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**ECON 100 Introduction to Economics 3 (3,0,0,0)**

This course is intended for students with no prior background in business or economics. It is study of basic macroeconomics, microeconomics, and international economics principles, as well as current global economic and social issues. The course introduces the student to basic economic concepts and applications emphasizing the economic way of thinking. The student will, therefore, relate principles such as scarcity, opportunity cost, and cost-benefit analyses to everyday real world economic situations.

**ECON 102 Principles of Microeconomics 3 (3,0,0,0)**

An examination of the price theory for product market models and consumer demand models with attention focused on the application of price theory in current economic issues.

Prerequisite: MATH 124.

**ECON 103 Principles of Macroeconomics 3 (3,0,0,0)**

A study of the determination of levels of national income, employment, prices and basic causes of fluctuation of these levels.

Prerequisite: MATH 124.

**ECON 180 The Economics of Discrimination 3 (3,0,0,0)**

The Discrimination of Economics investigates the economic causes, effects, and remedies of discrimination based on categories such as age, ethnicity, gender, religion, national origin, or sexuality. (Same as WMST 180.)

**ECON 261 Principles of Statistics I 3 (3,0,0,0)**

Introduction to descriptive statistics, probability and expectations, theoretical distributions, hypothesis testing and regression analysis. The emphasis is on use, application, and interpretation of statistical techniques.

Prerequisite: MATH 124.

**ECON 262 Principles of Statistics II 3 (3,0,0,0)**

Advanced statistical techniques, including multiple regression, the classical time series model, analysis of variance and non-parametric statistics.

Prerequisite: ECON 261 or Instructor approval.

**ECON 274 Investment Economics 3 (3,0,0,0)**

This course will explore the basic scientific paradigms and applications to micro-finance and investing. Topics will include individual securities, equity, fixed income, governments, global issues, bond funds, limited partnerships, options, futures, monetary market systems, real estate investing, microbanking, precious metals, antiques and collectables, micro-financial planning and many others.

**ECON 275 Risk Management Economics 3 (3,0,0,0)**

This is a course of study in the theory and practice of risk management and insurance economics. Topics include risk management typology and Cyber risk models/applications, wealth creation and conversation, estate planning science, life insurance market, health risk management, senior risk management, basic insurance ethics, federal and state insurance laws and codes and many others.

**ECON 276 Internship in Financial Economics 3 (1,0,0,8)**

Interactive participation with numerous financial institutions in applying practical financial and investment tools and policies toward the completion of a research financial and investment project.

**ECON 295 Special Topics in Economics 1-3 (1-3,0,0,0)**

Topics of current interest in applied economics and finance. This develops awareness of and appreciation for applied economics. May be repeated for a maximum of six credits.

**ECON 320 Economics of Health and Health Care 3 (3,0,0,0)**

Economics of health care sector including physician, allied health professional, hospital and insurance markets. Emphasis on the role of government, private sector, information and externalities in health care outcomes.

Prerequisite: ECON 102 or Instructor approval and Admission to the Dental Hygiene Bachelor of Science Degree Program.

### Education

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**EDU 201 Introduction to Elementary Education 3 (3,0,0,0)**

Introductory course in teacher education that examines the role of the elementary school teacher in today's society; historical, philosophical, cultural, and social domains are investigated. Strategies for effective interpersonal communication are explored. Foundations for the practice of teaching are explored and practiced at an introductory level. Observation in a local elementary school is required.

**EDU 202 Introduction to Secondary Education 3 (3,0,0,0)**

Introduction to the historical and philosophical foundations, settings, problems, and issues related to contemporary secondary schooling and its complexities. Current issues and educational foundations (multicultural, social, and psychological) emphasized. Observation in a classroom is required.

**EDU 203 Introduction to Special Education 3 (3,0,0,0)**

This course provides an overview of special education. Focus is on characteristics of learners with disabilities and on the historical, social and legal foundations of special education. The course is designed for undergraduate students in special education, general education, nursing, counseling, psychology and related fields. Observation in a classroom is required.



**EDU 207 Exploration of Children's Literature 3 (3,0,0,0)**

Survey of children's literature genres. Censorship, historical background, children's interests, literature programs and book evaluation.

**EDU 210 Nevada School Law 2 (2,0,0,0)**

This course is designed to acquaint prospective teachers with the legal aspects of the school setting.

**EDU 214 Preparing Teachers to Use Technology 3 (3,0,0,0)**

Overview of uses of computers in education, including the use of the computer as a teacher utility, the use of application programs, and the selection and use of educational software.

**EDU 215 Substitute Teaching Essentials: Introduction 1 (1,0,0,0)**

This course is designed to encourage students to consider substitute teaching. Focus will be on interviewing, first aid and CPR, communication, and code of ethics.

**EDU 216 Substitute Teaching Essentials: Preparation and Planning 1 (1,0,0,0)**

This course prepares the novice substitute teacher to become successful at planning, organizing and using skills and strategies that affect the classroom daily routine.

**EDU 217 Substitute Teaching Essentials: School Procedures 1 (1,0,0,0)**

This course is designed to give substitute teachers an insight on the best practices of the school environment and how to prepare and handle policies and procedures during the daily routine.

**EDU 220 Principles of Educational Psychology 3 (3,0,0,0)**

The psychology of learning, motivation, growth and development, personality, dynamics, and social adjustment.

Prerequisite: ECE 250 or EDU 201 or 202 or 203.

**EDU 240 Introduction to Classroom Management 3 (3,0,0,0)**

This course will provide an introduction to classroom management theories and techniques: building a classroom management system, producing responsible behavior, and maintaining positive classroom management.

**EDU 270 Internet Research in Education 3 (3,0,0,0)**

This course is designed to help students learn more about information resources available when conducting research in the field of education and other subjects; identifying and mastering appropriate Internet research tools (search engines, directories, databases, digital libraries, e-journals, bibliographies, encyclopedias); developing research strategies, and critically evaluating Internet information.

**EDU 280 Valuing Cultural Diversity 3 (3,0,0,0)**

Introduces preservice educators to microcultures which may include class, ethnicity, gender, exceptionalities, religion, language, and age. Culturally appropriate pedagogical practices, dimensions of multicultural education, and educational implications of diversity emphasized.

**EDU 295 Special Topics in Education 1-6 (1-6,0,0,0)**

This course will provide content benefitting preservice teachers in preparation for the classroom and a career in education.

**EDU 298 Introduction to Gifted Education 3 (3,0,0,0)**

Study of educational programs for gifted children, including identification, characteristics, history, philosophy and programming options. Investigations on research, creativity, intelligence and special populations will also be covered.

**EDU 299 Education Portfolio 1 (1,0,0,0)**

Students will compile a final portfolio of artifacts from their CSN education coursework for use in education department program assessment and for supporting students in applying for undergraduate teacher education program and/or for future employment. The Education portfolio serves as the capstone for the CSN Elementary, Secondary, Special Education, and Early Childhood Education Emphasis AA Degrees.

Prerequisite: Instructor permission.

**Electrical Engineering****EE 190 Electrical and Computer Engineering Freshman Design 1 (0,3,0,0)**

This course is an introduction to history and overview, as well as design principle in electrical and computer engineering. It covers: a) working safety; professional ethics lectured by guest engineers from local industries; b) various branches of electrical and computer engineering lectures lectured by various professors; c) construction and test of various electrical circuits and computer system.

**EE 220 Circuits I 3 (3,0,0,0)**

This course is an introduction to linear circuit analysis. It covers Kirchhoff's laws, node and loop analysis, Thevenin, Norton, and other circuit network theorems, operational amplifiers, first order RL and RC circuits, second order RLC circuits.

Prerequisite: MATH 182.

Corequisite: EE 220D.

**EE 220D Circuits I Discussion 0 (1-3,0,0,0)**

This course covers: 1) Solving electrical circuit problems using PSpice, 2) Solve electrical problems using Multisim, and 3) Build and test simulated circuits.

Prerequisite: MATH 182.

Corequisite: EE 220.



**EE 220L      Circuits I Discussion  
and Laboratory    1 (0,3,0,0)**

This discussion and laboratory course covers: 1) Introduction to PSpice, a simulation tool for electrical circuits, problem solving using PSpice 2) Multisim, schematic capture/simulation software, problem solving using Multisim, 3) Test equipment including power suppliers, multimeters, function generator, and oscilloscopes.

Prerequisite: EE 190 and MATH 182.

**EE 221                    Circuits II    3 (3,0,0,0)**

EE 221 is the second semester of a one-year course to study electrical circuits. It covers a) sinusoidal steady state analysis by using phasors, sinusoidal steady state power; b) the Laplace transform and its applications to circuit analysis and network function; c) magnetically coupled circuits and transformers; d) circuit analysis in s-domain, and frequency response.

Prerequisite: EE 220.

**EE 221L                Circuits II Laboratory    1 (0,3,0,0)**

This laboratory course covers operation of general and special purpose electrical test equipment in AC circuit. Students will design, build, and test: 1) RL, DC and RLC circuits; 2) Transformer circuits to measure AC power; 3) Frequency response circuits. Computer simulation software PSpice and Multisim will also be used in this course.

Corequisite: EE 221.

## Engineering

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**EGG 101                Introductory Engineering  
Experience    2 (2,3,0,0)**

This is an introductory course to learn the program outcomes for students in electrical or computer engineering majors. Other topics include professional ethics, technical communication, the design process, and technology's impact on a global society.

**EGG 125B            Civil-Survey Design    3 (2,2,0,0)**

Advanced subdivision, street and utility horizontal design and computations; basic map preparation; methods and procedures for construction surveying of civil-designed improvements.

**EGG 131                Technical Physics I    3 (3,0,0,0)**

This course is designed for students in technical areas to study physics. Numerical calculations are intensive. This is the first semester of a one-year course. It covers equilibrium, motion, dynamics, wave and fluid mechanics.

Prerequisite: ET 111B or MATH 116 or above (except MATH 122, 123).

**EGG 131L             Technical Physics I - Lab    1 (0,3,0,0)**

This course is for students that are taking or have taken EGG 131 Technical Physics I. Numerical calculations are intensive. Experiments in the course cover topics such as equilibrium, motion, dynamics, wave and fluid mechanics that are covered in the lecture course EGG 131.

Suggested Prerequisite: EGG 131 (or concurrent enrollment in EGG 131).

**EGG 132                Technical Physics II    4 (3,3,0,0)**

Continuation of EGG 131. Covers thermodynamics, electricity, magnetism, basic AC/DC circuits, solid state physics, optics, and an introduction to modern physics.

Prerequisite: EGG 131.

**EGG 206                Engineering Mechanics I    3 (3,0,0,0)**

Engineering analysis of concentrated and distributed force systems at equilibrium, analysis of structures, beams and cables, friction, virtual work, fluid statics, shear and moment diagrams.

Prerequisite: MATH 181 or Instructor approval.

## Emergency Management Administration

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**EMA 101                Principles of  
Emergency Management    3 (3,0,0,0)**

This course introduces students to the fundamental aspects of emergency management. Students will learn the principles of emergency management and be able to work with the main emergency management issues. The course also describes how various emergency management services work together in a system of resources and capabilities.

**EMA 102                Disaster Mitigation  
and Preparedness    3 (3,0,0,0)**

This course is designed to introduce students to the process and practice of emergency planning. The course covers a range of strategies and skills that planners require to achieve a successful planning process for dealing with disasters in future time, and those that must be considered when planning for implementing the emergency plan at the time of disaster impact.

Prerequisite: CRJ 108 or EMA 101.

**EMA 120                Emergency  
Operations Centers    3 (3,0,0,0)**

This course provides information on how to determine the best location for an emergency operations center (EOC), and describes the factors that should be considered in choosing its physical design. It describes the most prevalent approaches to EOC functions and the reasons for using them in organizing an EOC. The course also stresses the importance of standard operating procedures (SOPs) in EOC operations, and the requirements for conducting exercises and evaluations of the EOC.

Prerequisite: CRJ 108 or EMA 101.



**EMA 130 Role and Scope of the Public Information Officer 3 (3,0,0,0)**

This course provides students with the basic skills needed to perform public information duties as they relate to emergency management. It focuses on the definition of the job of the public information officer (PIO) as well as the skills needed for that position. The course also covers the Joint Information System element of the National Incident Management System.

Prerequisite: COM 101; and CRJ 108 or EMA 101.

**EMA 140 Disaster Response and Recovery 3 (3,0,0,0)**

This course introduces the basic concepts of disaster response and recovery. Concepts include the roles and responsibilities of emergency management stakeholders. Describes how roles and responsibilities differ in response versus recovery.

Prerequisite: CRJ 108 or EMA 101.

**EMA 220 Emergency Simulations and Exercises 3 (3,0,0,0)**

This course provides students with the knowledge and skills to develop and conduct disaster exercises that can be used to test emergency operations plans and operational response capabilities of organizations, businesses and communities. The course also addresses and satisfies the National Exercise and Evaluation Program criteria.

Prerequisite: CRJ 108 or EMA 101.

**EMA 230 Incident Command System (ICS) and National Incident Management System (NIMS) 3 (3,0,0,0)**

The Incident Command System (ICS) National Training Curriculum covers introductory (overview, orientation and basics), intermediate and advanced elements of the National Incident Management System (NIMS). This course provides ICS management tools for all levels of users.

Prerequisite: CRJ 108 or EMA 101.

**EMA 250 Terrorism Response Planning 3 (3,0,0,0)**

This course identifies policies and procedures for the emergency management administrator and staff. It evaluates Emergency Operations Plans (EOPs) as well as other government entities. The EMA manager will learn about hard and soft targets in his/her jurisdiction.

Prerequisite: CRJ 108 or EMA 101.

**Emergency Medical Services****EMS 108B Emergency Medical Technician Training 8 (7,3.5,0,0)**

Basic emergency medical training in trauma and medical patient assessment, airway management, fracture and wound care, basic pharmacology and semiautomatic external defibrillation. Course satisfies local fire department testing.

Prerequisite: Healthcare Provider CPR card; current immunizations; background check; drug screen; and health insurance required.

Corequisite: EMS 150B.

**EMS 110B Secondary EMS Instructor 2 (2,0,0,0)**

A 24-hour course for experienced providers that presents introductory concepts, resources, and skills to effectively deliver quality EMS education. Includes essential instructor knowledge, such as: psychology of learning, classroom management, legal issues, and evaluation practices.

Prerequisite: Currently certified as an AEMT or Paramedic with at least two (2) years of full-time or five (5) years of volunteer/part-time EMS experience; or EMS Program Director approval.

**EMS 112B Primary EMS Instructor 1 (1,0,0,0)**

A 16-hour course for experienced instructors that provides the fundamental knowledge essential to being a Primary EMS Instructor. Content will focus on the educational processes, and learning theories and practice. It will provide practical experience in teaching strategies and facilitation techniques. Approaches to assessment and evaluation using observation, practice and reflection are presented.

Prerequisite: Currently certified as a Secondary EMS Instructor at any provider level; or EMS Program Director approval.

**EMS 115B Advanced Emergency Medical Technician 7 (6,3,0,0)**

Instructs in the roles and responsibilities for the Advanced EMT. Skills include, but are not limited to patient assessment skills, intravenous therapy, advanced airway management, basic electrophysiology, radio communications, and pharmacology for the Advanced EMT. Current certification as an EMT, current immunizations, background check, drug screen and health insurance required.

Corequisite: EMS 116B.

**EMS 116B AEMT Clinical Practice 1 (0,0,7,0)**

Field training for the Advanced EMT student. Will involve in-hospital rotations, field ambulance training, and community service. Graded Pass/Fail.

Prerequisite: Current certification as an EMT; current immunizations; background check; drug screen and health insurance required.

Corequisite: EMS 115B.



**EMS 117B Clinical Practicum 1 (0,0,4,0)**

Supervised application of EMT Intermediate skills in the field and/or hospital setting. Emphasis will be on patient assessment, EKG interpretation, pharmacology applications, advanced and basic airway management.

Prerequisite: Current enrollment or acceptance in the CSN Paramedic program; current certification as an Intermediate EMT; current immunizations; and health insurance required.

**EMS 125B Pharmacology for Paramedics 3 (3,0,0,0)**

A fundamental course in pharmacology for the prehospital health provider. Areas of emphasis are the pharmacodynamics and pharmacokinetics of drug therapy, roles and responsibilities of drug administration and dosage calculations. Covers common drug classifications found in the prehospital setting.

Prerequisite: EMS Program Director approval

**EMS 127B Paramedic Clinical Practice I 2 (0,0,16,0)**

Supervised application in a hospital and prehospital setting of the skills learned in aggregate Paramedic training. Emphasis will be on patient assessment, recognition and management of medical and trauma emergencies. Graded Pass/Fail.

Prerequisite: HIT 117B with a grade of C or higher and EMS Program Director approval.

**EMS 129B Paramedic Fundamentals 3 (2,3,0,0)**

Introduction to a paramedic approach to patient assessment including adaptive techniques for special populations (obstetrics, geriatrics, and special challenges). Laboratory instruction and practice will focus on application and interpretation of prehospital diagnostic and monitoring devices, advanced airway management, medication delivery, and therapeutic communications.

Prerequisite: HIT 117B with a grade of C or higher and EMS Program Director approval.

**EMS 130B Paramedic Assessment I 1 (0,3,0,0)**

This course will develop introductory patient assessment and history taking skills necessary for further progression through the Paramedic program. Students shall build upon previously learned skills acquired within the EMT and/or AEMT coursework, while implementing ECG monitoring and pharmacological interventions as learned in other classes.

Prerequisite: HIT 117B with a grade of C or higher and EMS Program Director approval.

**EMS 145B Essentials of Paramedic Medicine 3 (3,0,0,0)**

Instruction and practice on basic aspects of EMS systems and leadership, workforce safety and wellness, public health, documentation, communications, medical, legal, and ethical issues, and special circumstances such as assault and abuse will be addressed. This course will be tailored to advancing the students' understanding of these subjects through integration with EMS research and publications.

Prerequisite: EMS 117B with a grade of C or higher and EMS Program Director approval.

**EMS 150B EMT Clinical Practice 1 (0,0,6,0)**

This course places the EMT in the skill performance clinical arena. Areas of emphasis include, but are not limited to community service projects, Prehospital EMS Ride-a-longs, Labor and Delivery rotations, In-hospital Emergency Department rotations, and Psychiatric observation rotations. Graded Pass/Fail.

Corequisite: EMS 108B

**EMS 165B Pathophysiology for Paramedics 3 (3,0,0,0)**

A correlative approach to pathophysiology employing both physical assessment skills and a basic cellular understanding to the various disease entities and trauma processes.

Prerequisite: HIT 117B with a grade of C or higher and EMS Program Director approval.

**EMS 166B Advanced Medical Care 4 (3,3,0,0)**

A cumulative course which incorporates the recognition and management of prehospital emergencies to include topics of assessment, differential diagnosis, pathophysiology, pharmacology, electrophysiology and treatment. Lab components include advanced airway management, advanced invasive procedures, medication administration and electrical therapy modalities.

Prerequisite: EMS 125B and 129B and 130B and 165B and 168B all with a grade of C or higher

**EMS 167B Paramedic Clinical Practice II 2 (0,0,16,0)**

Supervised application in a hospital and prehospital setting of the skills learned in aggregate Paramedic Training. Emphasis will be on patient assessment and recognition and management of medical and trauma emergencies. Graded Pass/Fail.

Prerequisite: EMS 127B.

**EMS 168B Electrophysiology/ Electrocardiography 3 (3,0,0,0)**

Instructs in the anatomy and physiology of the conduction system of the heart, the electrical system and electrocardiography, abnormal EKG patterns and the recognition and management of dangerous or life-threatening dysrhythmias. Includes an introduction to 12-lead ECG interpretation.

Prerequisite: HIT 117B with a grade of C or higher and EMS Program Director approval.

**EMS 169B Advanced Cardiac Life Support (ACLS) 1 (0.75,0.5,0,0)**

Instructs in the most current standards of the American Heart Association for ACLS. Class is offered in seminar format over two days.

Prerequisite: Current AHA BLS CPR card and EMS Program Director approval.



**EMS 171B Prehospital Trauma Life Support (PHTLS) 1 (0.75,0.5,0,0)**

Instructs in the assessment and management of the critical trauma patient according to national PHTLS format. Course is ALS in format, but may be suitable for very experienced Intermediate level providers. Class is offered in seminar format over two days.

Prerequisite: EMS Program Director approval.

**EMS 172B Vehicle Extrication for Paramedics 2 (1.75,0.5,0,0)**

Vehicle extrication operations level is a participative course designed for prehospital care providers in NFPA 1670. Enhances and incorporates new knowledge and skills necessary to access, extricate, and care for victims of crash incidents. Provides knowledge in scene management and familiarization with local resources needed to mitigate incidents. Provides knowledge for competence at hazardous materials awareness level. Includes National Fire Academy ICS for EMS training.

Prerequisite: Enrollment in CSN Paramedic training.

**EMS 173B Paramedic Field Internship 3 (0,0,0,24-32)**

Field internship allowing students to practice and apply advanced life support knowledge and skills. Each student will be a third person on a Paramedic rescue unit and will work directly with a Paramedic preceptor. Graded Pass/Fail.

Prerequisite: Completion of CSN Paramedic training to date; local provisional Paramedic Certificate; and six months of 911 transport experience.

**EMS 176B Pediatrics for Paramedics 4 (3,3,0,0)**

Instructs in a comprehensive approach to the pediatric patient from birth to adolescence. Course will include AHA-Pediatric Advanced Life Support Curriculum (PALS).

Prerequisite: EMS 125B and 165B and 168B all with a grade of C or higher.

**EMS 185B Advanced Trauma Care 3 (3,0,0,0)**

Instructs in the recognition and management of traumatic emergencies, to include hemorrhage, shock, traumatic brain injuries, burns, environmental emergencies, multisystem trauma, crime scene awareness, terrorism and hazmat operations.

Prerequisite: EMS 129B and 130B and 165B all with a grade of C or higher.

**EMS 190B Emergency Medical Dispatch 3 (2,0,4,0)**

Designed to perform emergency dispatch using the Emergency Priority Dispatch Systems. Students identify the correct chief complaint or incident type, prioritize response assignments, provide life-sustaining support, handle difficult callers and reduce the potential for life-threatening mistakes.

**EMS 201B Operations and Management in EMS 1 (1,0,0,0)**

Includes EMS system planning, organizing, directing, quality control, financing, stress management, and interagency communications. Will also address current issues in EMS locally and nationally.

Prerequisite: Current EMT Paramedic certification or approval.

**EMS 202B Advanced ECG Interpretation 1 (1,0,0,0)**

Introduction to 12 lead ECG interpretation. Topics will include intraventricular conduction delays, myocardial ischemia, injury, and infarction. Will also include pre-excitation syndrome, bundle branch blocks, ectopy, and advanced dysrhythmia interpretation. Course may be offered in seminar blocks as necessary.

Prerequisite: EMS 168B with a grade of C or higher.

**EMS 230B Paramedic Assessment II 1 (0,3,0,0)**

This course will allow the participant to apply the information gained from prior paramedic coursework in a manner that emphasizes proper patient assessment, and the development and implementation of an appropriate treatment plan based on high-quality emergency care. This course will be tailored to advancing the students understanding of all paramedic subjects through practical skills scenarios.

Prerequisite: EMS 130B with a grade of C or higher.

**English****ENG 092 College Prep English I 5 (5,0,0,0)**

Emphasis on college-level reading and writing. Practice in paragraph construction and the introduction to the complete essay. Review of grammar/punctuation skills and sentence structure. Guidance and instruction in integrating reading and writing skills.

Prerequisite: English Placement Test.

**ENG 098 Preparatory Composition 3 (3,0,0,0)**

Intensive reading and writing course focusing on college-level critical reading and essay writing strategies. This course was designed for students whose ACT or SAT scores indicate that they would benefit from an additional semester of English before beginning their college-level work.

Prerequisite: ENG 092 with a grade of C- or higher or English Placement Test.

**ENG 100 Composition Enhanced 5 (5,0,0,0)**

A writing intensive course designed to strengthen college-level composition skills, with particular attention to audience, purpose, and context for writing focusing on the writing process and introducing research.

Prerequisite: English Placement Test; or completion of ENG 098 with a grade of C- or better; or ESL 139 with a grade of C- or better.



**ENG 101      Composition I                              3 (3,0,0,0)**

ENG 101 is designed to strengthen college-level writing skills, with particular attention to audience, purpose, and rhetorical situation focusing on the writing process and introducing research.

Prerequisite: English Placement Test; or completion of ENG 098 with a grade of C- or better; or ESL 139 with a grade of C- or better.

**ENG 101H      Composition I – Honors                              3 (3,0,0,0)**

A writing intensive, Honors-level course designed to strengthen college-level composition skills, with particular attention to audience, purpose, and context for writing focusing on the writing process and introducing research. Limited class size ensures workshop environment.

Prerequisite: English Placement Test reflecting placement in ENG 101; and Reading Placement Test reflecting reading placement in ENG 101; and Admission to the Honors program; or Instructor approval.

**ENG 102      Composition II    3 (3,0,0,0)**

ENG 102 is a continuation and extension of ENG 101 and equivalents with attention to analytical reading and writing, critical thinking, and research methodologies, while emphasizing interpretation, analysis, synthesis, and argument.

Prerequisite: ENG 100 or 101 or 101H or 113 with a grade of C- or higher.

**ENG 102H      Composition II – Honors                              3 (3,0,0,0)**

An Honors-level version of ENG 102 Composition II, with a more in-depth focus on workshop and research techniques. Class will continue to emphasize rhetorical methodology, while deepening a student's ability to read and write analytically, think critically, and interpret effectively.

Prerequisite: ENG 100 or 101 or 101H or 113 with a grade of C or higher; and Admission to the Honors program.

**ENG 107      Technical Communications I      3 (3,0,0,0)**

Apply the techniques of the professional writing process to real world documents such as e-mails, business correspondence, proposals, reports, and websites.

Prerequisite: Placement into ENG 100 or 101 or 113 or ENG 098 or ESL 139 with a grade of C or higher.

**ENG 113      Composition I for International Students                              3 (3,0,0,0)**

A writing intensive course designed to strengthen college-level composition skills, with particular attention to audience, purpose, and context for writing focusing on the writing process and introducing research.

Prerequisite: English Placement Test; or completion of ENG 098 with a grade of C- or better; or ESL 139 with a grade of C- or better.

**ENG 114      Composition II for International Students                              3 (3,0,0,0)**

Continuation and extension of ENG 113 and equivalents with attention to analytical reading and writing, critical thinking, and research methodologies, while emphasizing interpretation, analysis, synthesis and argument.

Prerequisite: ENG 100 or 101 or 101H or 113 with a grade of C- or higher.

**ENG 181      Vocabulary and Meaning                              2 (2,0,0,0)**

Problems of meaning, word derivation and word formation are investigated with a view to enlarging and refining a working English vocabulary.

**ENG 196      Internship    1-3 (0,0,0,50-150)**

A supervised workshop experience in a business or organization. Can be repeated for a total of six credits.

Prerequisite: English major; and approval of the organization where the internship will be completed; and Internship Coordinator approval.

**ENG 205      Introduction to Creative Writing: Fiction and Poetry      3 (3,0,0,0)**

A course designed to give students writing experience, introduce them to marketable types of writing and sharpen their writing to commercially acceptable quality.

Prerequisite: ENG 100 or 101 or 101H or 113 with a grade of C- or better; or Department Chair or Instructor approval.

**ENG 211      Introduction to Linguistics                              3 (3,0,0,0)**

An introduction to the study of language from the perspective of Modern Linguistics. The class studies the formation of sounds, words, sentences, and meaning; as well as aspects of language variation and acquisition.

**ENG 220      Writing Poetry    3 (3,0,0,0)**

The study of poetry writing methods and forms with concentration on the student's creative writing. This course can be repeated once for credit.

Prerequisite: ENG 205 or Instructor approval.

**ENG 221      Writing Fiction    3 (3,0,0,0)**

A course for learning the craft of fiction writing in a workshop setting with a goal of refining the creative process, implementing critical self-editing, and developing an understanding of the aesthetics of fiction as art. This course can be repeated once for credit.

Prerequisite: ENG 205 or Instructor approval.

**ENG 223      Themes of Literature    3 (3,0,0,0)**

Themes and ideas significant in literature. May be repeated for a maximum six credits.

Prerequisite: ENG 100 or 101 or 101H or 113 with a grade of C- or higher; or Department Chair or Instructor approval.





**ENG 223H Themes of Literature - Honors 3 (3,0,0,0)**

Themes and ideas significant in literature. Topics will be more intensive or covered in more depth than in the non-Honors version. May be repeated for a maximum six credits. Courses with "H" suffixes are designated Honors-level courses and can be used to fulfill equivalent general education requirements.

Prerequisite: ENG 100 or 101 or 101H or 113 with a grade of C or higher; or Department Chair or Instructor approval; and Admission to the Honors program.

**ENG 224B Introduction to Screenwriting 3 (3,0,0,0)**

The study of screenwriting methods and forms with a concentration on the student's creative writing.

**ENG 230 Writing Creative Non-Fiction 3 (3,0,0,0)**

The study of creative non-fiction writing methods and the art of the personal essay with concentration on the student's creative writing.

Prerequisite: ENG 205 or Instructor approval.

**ENG 231 World Literature I 3 (3,0,0,0)**

World Literature I explores literature from our earliest texts to c1651. Individual sections will include texts selected from around the world, and incorporate prose, poetry, and drama. Discussing the central themes of the global literary discourse will help students discover how authors have contributed to the literary tradition, recognize the influence of literature on contemporary thought, and form connections across historical, geographical, and cultural boundaries.

Prerequisite: ENG 100 or 101 or 101H or 113 with a grade of C- or higher; or Department Chair or Instructor approval.

**ENG 231H World Literature I - Honors 3 (3,0,0,0)**

A reading intensive, Honors-level course designed to introduce students to the major figures, movements and ideas in world literature from ancient times to 1650.

Prerequisite: ENG 100 or 101 or 101H or 113 with a grade of C or higher; and Admission to the Honors program.

**ENG 232 World Literature II 3 (3,0,0,0)**

World Literature II explores literature from c1651 to current times. Individual sections will include texts selected from around the world, and incorporate prose, poetry, and drama. Discussing the central themes of the global literary discourse will help students discover how authors have contributed to the literary tradition, recognize the influence of literature on contemporary thought, and form connections across historical, geographical, and cultural boundaries.

Prerequisite: ENG 100 or 101 or 101H or 113 with a grade of C- or higher; or Instructor approval.

**ENG 232H World Literature II - Honors 3 (3,0,0,0)**

A reading intensive, Honors-level course designed to introduce students to the major figures, movements and ideas in world literature from 1650 to the present.

Prerequisite: ENG 100 or 101 or 101H or 113 with a grade of C or higher; and Admission to the Honors program.

**ENG 235 Survey of English Literature I 3 (3,0,0,0)**

Reading and discussion of major British works and writers from Early English through the eighteenth century.

Prerequisite: ENG 100 or 101 or 101H or 113 with a grade of C- or higher; or Department Chair or Instructor approval.

**ENG 236 Survey of English Literature II 3 (3,0,0,0)**

Reading and discussion of major British works and writers from late eighteenth century through modern literature.

Prerequisite: ENG 100 or 101 or 101H or 113 with a grade of C- or higher; or Department Chair or Instructor approval.

**ENG 241 Survey of American Literature I 3 (3,0,0,0)**

Includes major American works and writers, Colonial Period to the Civil War, with emphasis on both enjoyment and critical appreciation of literature.

Prerequisite: ENG 100 or 101 or 101H or 113 with a grade of C- or higher; or Department Chair or Instructor approval.

**ENG 242 Survey of American Literature II 3 (3,0,0,0)**

Includes major American works and writers, Civil War to present, with emphasis on both enjoyment and critical appreciation of literature.

Prerequisite: ENG 100 or 101 or 101H or 113 with a grade of C- or higher; or Department Chair or Instructor approval.

**ENG 243 Introduction to Short Story 3 (3,0,0,0)**

Short stories read and discussed, with special emphasis on analysis and interpretation of plot, character, point of view, theme, symbol and tone.

Prerequisite: ENG 100 or 101 or 101H or 113 with a grade of C- or higher; or Department Chair or Instructor approval.

**ENG 252 Introduction to Drama 3 (3,0,0,0)**

Reading and discussion of works selected from among the best in Western Culture, including but not restricted to ancient Greek comedy and tragedy, Shakespeare, Eighteenth Century Comedy and 19th Century Expressionism. Critical reviewing of drama, both live and on film, is promoted and encouraged.

Prerequisite: ENG 100 or 101 or 101H or 113 with a grade of C- or higher; or Department Chair or Instructor approval.



**ENG 256 Introduction to the Literature of King Arthur 3 (3,0,0,0)**

Readings in primary and secondary materials relating to the Arthurian Cycle.

Prerequisite: ENG 100 or 101 or 101H or 113 with a grade of C- or higher; or Department Chair or Instructor approval.

**ENG 257 Introduction to Classical Mythology 3 (3,0,0,0)**

Readings in primary and secondary materials relating to the Classical Mythology.

Prerequisite: ENG 100 or 101 or 101H or 113 with a grade of C- or higher; or Department Chair or Instructor approval.

**ENG 259 Speculative Fiction and Fantasy Literature 3 (3,0,0,0)**

Reading and discussion of selected novels and short stories.

Prerequisite: ENG 100 or 101 or 101H or 113 with a grade of C- or higher.

**ENG 260 World Mythology 3 (3,0,0,0)**

Readings in primary and secondary sources to World Mythology.

Prerequisite: ENG 100 or 101 or 101H or 113 with a grade of C- or higher; or Instructor approval.

**ENG 261 Introduction to Poetry 3 (3,0,0,0)**

Lectures and discussions about poetry intended to develop the student's ability to read, understand and evaluate a poem.

Prerequisite: ENG 100 or 101 or 101H or 113 with a grade of C- or higher; or Department Chair or Instructor approval.

**ENG 265 Nature in Literature 3 (3,0,0,0)**

Students will read, analyze, and discuss various literary expressions of our conceptions of nature.

Prerequisite: ENG 100 or 101 or 101H or 113 with a grade of C- or higher; or Department Chair or Instructor approval.

**ENG 267 Introduction to Women and Literature 3 (3,0,0,0)**

Study of a variety of important women authors. Some semesters, offered as a study of important female characters taken from famous plays and novels.

Prerequisite: ENG 100 or 101 or 101H or 113 with a grade of C- or higher; or Department Chair or Instructor approval.

**ENG 268 Introduction to Migrant Literature 3 (3,0,0,0)**

Themes and ideas significant in immigrant literature related to voluntary and compulsory migration.

Prerequisite: ENG 100 or 101 or 101H or 113 with a grade of C- or higher; or Department Chair or Instructor approval.

**ENG 271 Introduction to Shakespeare 3 (3,0,0,0)**

Shakespeare's principal plays read for their social interest and their literary excellence.

Prerequisite: ENG 100 or 101 or 101H or 113 with a grade of C- or higher; or Department Chair or Instructor approval.

**ENG 271H Introduction to Shakespeare - Honors 3 (3,0,0,0)**

An Honors-level study of Shakespeare's principal plays read for their social interest and literary excellence. Honors emphasizes an in-depth study of Shakespeare's work focusing on its relevance to modern life. Courses with "H" suffixes are designated Honors-level courses and can be used to fulfill equivalent general education requirements.

Prerequisite: ENG 100 or 101 or 101H or 113 with a grade of C or higher; and Admission to the Honors program.

**ENG 272 Queer Literature 3 (3,0,0,0)**

Overview of gay and lesbian literary figures from Western antiquity to present. Instruction explores love and sex between same-sex relationships through a historical and theoretical framework. Emphasis on rereading texts to discover gay and lesbian themes ignored or concealed in more traditional textual analyses.

Prerequisite: ENG 100 or 101 or 101H or 113 with a grade of C- or higher; or Department Chair or Instructor approval.

**ENG 273 Comic Books as Literature 3 (3,0,0,0)**

This course will examine the power of comic books as they create and manipulate the significance of historical, social, political, and cultural issues within the framework of critical reading and literary analysis.

Prerequisite: ENG 100 or 101 or 101H or 113 with a grade of C- or higher; or Department Chair or Instructor approval.

**ENG 275 Contemporary Literature 3 (3,0,0,0)**

Reading and discussion of recent literature of various types to acquaint students with contemporary writers.

Prerequisite: ENG 100 or 101 or 101H or 113 with a grade of C- or higher; or Department Chair or Instructor approval.

**ENG 278 Readings in the Contemporary Novel 3 (3,0,0,0)**

Study of the post-World War II novel, its development, and direction.

Prerequisite: ENG 100 or 101 or 101H or 113 with a grade of C- or higher; or Department Chair or Instructor approval.

**ENG 284 Introduction to the Bible as Literature 3 (3,0,0,0)**

Readings in primary and secondary materials relating to the Bible as Literature.

Prerequisite: ENG 100 or 101 or 101H or 113 with a grade of C- or higher; or Department Chair or Instructor approval.



**ENG 289 Holocaust and Genocide Literature 3 (3,0,0,0)**

Focuses on literature of the World War II Holocaust and other previous and subsequent genocidal literature. Reading, discussion of selected works in social, historic, literary, comparative contexts.

Prerequisite: ENG 100 or 101 or 101H or 113 with a grade of C- or higher; or Department Chair or Instructor approval.

**ENG 290 Introduction to African-American Literature 3 (3,0,0,0)**

Introduction to the poetry, fiction, drama, and non-fiction of African Americans.

Prerequisite: ENG 100 or 101 or 101H or 113 with a grade of C- or higher; or Department Chair or Instructor approval.

**ENG 292 Introduction to Chicano Literature 3 (3,0,0,0)**

Introduction to Chicano literature through the study of classic and contemporary works of prose, poetry, and theater. Course conducted in English.

Prerequisite: ENG 100 or 101 or 101H or 113 with a grade of C- or higher; or Department Chair or Instructor approval.

**ENG 293 Latin American Literature 3 (3,0,0,0)**

An introduction to a rich and complex tradition of literary production from Latin America (including the Caribbean) that dates back from the pre-Columbian period to the present. Course will be conducted in English.

Prerequisite: ENG 100 or 101 or 101H or 113 with a grade of C- or higher; or Department Chair or Instructor approval.

**ENG 296 Portfolio Assessment 1 (0,0,0,1)**

A one-credit, independent study undertaken to satisfy the exit requirement of the Associate of Arts degree in English with a creative writing emphasis.

Prerequisite: Instructor approval.

**ENG 298 Writing About Literature 3 (3,0,0,0)**

ENG 298 focuses on prose, poetry, and drama in order to provide the tools students need for continued literary study. The course introduces basic literary terms, and various methods for analyzing texts.

Prerequisite: ENG 100 or 101 or 101H or 113 with a grade of C- or higher; or Department Chair or Instructor approval.

**ENG 299 Special Topics in English 3 (3,0,0,0)**

Investigates a special topic and/or area of interest within the field of English language, creative writing, or composition.

Prerequisite: ENG 100 or 101 or 101H or 113 with a grade of C- or higher; or Department Chair or Instructor approval.

**ENG 333 Professional Communications 3 (3,0,0,0)**

A course in applied rhetoric for students to develop the writing and communication skills they will need as professionals. The goal is to make strong writers with flexible analysis, writing, and oral communication skills.

Prerequisite: ENG 100 or 101 or 101H or 113 with a grade of C or higher; or Department Chair or Instructor approval; and Admission to the Bachelor of Science degree program in Dental Hygiene; or the Bachelor of Applied Science degree program in Cardiorespiratory Sciences or Medical Laboratory Scientist.

**Environmental Science****ENV 101 Introduction to Environmental Science 3 (3,0,0,0)**

A survey of basic ecological principles and an examination of selected environmental issues including overpopulation, pollution and energy alternatives.

**ENV 201 Environmental Toxicology and Risk Assessment 3 (3,0,0,0)**

The course introduces students to the principles and methods used to determine whether a relationship exists between an agent and an adverse effect in humans and to independently carry out a risk assessment. Students develop an understanding of current approaches to risk management by writing a risk management paper and learning about risk communication.

Prerequisite: ENV 101.

**ENV 206 Introduction to Climate Change 3 (3,0,0,0)**

This class will examine the physical, chemical, and social factors that influence the components of Earth's climate system.

Prerequisite: ENV 101.

**ENV 220 Introduction to Ecological Principles 3 (3,0,0,0)**

An introduction to the major principles and underlying processes of organismal, population, community and ecosystem ecology. (Same as BIOL 220.)

**ENV 260 Environmental Measurement and Analysis 4 (3,3,0,0)**

An introduction to multi-media sampling and analytical methods for evaluation of outdoor/indoor air, soil/surfaces, and water.

Prerequisite: CHEM 121 and CHEM 122

**ENV 299 Special Topics in Environmental Science 1-3 (0,3-9,0,0)**

Covers selected topics of interest to students in environmental sciences. This course may be repeated for a max of 6 credits.

Prerequisite: ENV 101.



## Education Professional Development

### EPD 111B The Paraprofessional in Education 3 (3,0,0,0)

A course designed to acquaint students with the role of a paraprofessional in education.

### EPD 113B Assisting in Math and Science Instruction 3 (3,0,0,0)

A course designed to introduce the student paraprofessional to current practices and tutoring strategies for math and science.

### EPD 114B Assisting in Language Arts/Literacy Instruction 3 (3,0,0,0)

An introductory course addressing the language arts curriculum and tutoring strategies for the student paraprofessional assisting in the classroom.

### EPD 115B Spanish for the School Professional 3 (3,0,0,0)

Basic conversational Spanish appropriate for the school professional.

### EPD 116B Classroom Technology 3 (3,0,0,0)

The class will provide the student experience with technology commonly used in the classroom.

### EPD 117B Understanding Special Education 3 (3,0,0,0)

An overview of the basics of special education including the IEP, IDEA and related services essential for education paraprofessionals.

### EPD 118B Effective Communication Strategies 3 (3,0,0,0)

This course will explore effective communication strategies such as conflict resolution and effective means of communicating in writing in the school setting.

### EPD 119B Understanding Assessment 3 (3,0,0,0)

This course will explore the role of assessment as it relates to the public school setting.

### EPD 121B Diversity in the Classroom 3 (3,0,0,0)

This course is primarily designed for paraprofessional support teachers to explore the basic principles of diversity in schools, and of teaching diverse learners. Observation in schools is required.

### EPD 122B Legal Issues in the Classroom 3 (3,0,0,0)

This course will explore the legal implications of working in a public school setting as a paraprofessional.

### EPD 130B Supervising Education Paraprofessionals in School Settings 3 (3,0,0,0)

This course will provide teachers with supervisory skills and tools to work effectively with paraprofessionals in education.

### EPD 131B Health and Safety Issues in School Settings 3 (3,0,0,0)

A course addressing the basic health and safety practices of the school setting.

### EPD 162B PPST/Praxis I Reading Review 1 (1,0,0,0)

Review of reading and test taking skills to assist the student in approaching the PPST/Praxis I Reading Exam with confidence. Graded Pass/Fail.

### EPD 163B PPST/Praxis I Writing Review 1 (1,0,0,0)

Review of writing and test taking skills to assist the student in approaching the PPST/Praxis I Writing Exam with confidence. Graded Pass/Fail.

### EPD 164B PPST/Praxis I Math Review 1 (1,0,0,0)

Review of math and test-taking skills to assist the student in approaching the PPST/Praxis I Math Exam with confidence. Education majors are required to pass the PPST/Praxis I before completing their degree program. Graded Pass/Fail.

### EPD 350 Teaching with Technology - Level I 1 (1,0,0,0)

Overview of teaching with technology utilizing online learning styles, discussing digital technologies and experiencing with software programs as teacher resources. This course is taught exclusively online for practicing teachers.

Prerequisite: Basic computer and word processing skills.

### EPD 351 Teaching with Technology - Level II 1 (1,0,0,0)

Overview of teaching with technology utilizing online web and educational resources and exploring distance education related articles. This course is taught exclusively online for practicing teachers.

### EPD 352 Teaching with Technology - Level III 1 (1,0,0,0)

Overview of teaching with technology utilizing online web resources, teacher utilities, and educational resources. Course taught exclusively online to practicing teachers. Must possess basic computer/word processing skills and access to current office programs.

### EPD 353 Orientation to Online Learning 1 (1,0,0,0)

Overview of the course management system, WebCT, used in online course development, including Email, Discussion Board and Chatroom.

### EPD 354 Student Assessment in Online Courses 3 (3,0,0,0)

This online course addresses various assessment formats that can be used for evaluating students in online courses.



**EPD 355 Instructional Design for Online Course Development 3 (3,0,0,0)**

Introduces instructional design principles and relates the principles to the development of online courses.

**EPD 356 Special Topics: Technology Innovations in Online Learning 2 (2,0,0,0)**

This course introduces the emerging technologies for online teaching and learning. The list of technologies is subject to change based on professor discretion, as the course progresses, in terms of both additions and deletions of technologies. Technologies include: Web-Blogs, voice over Internet protocol (VoIP), and Podcasts.

**EPD 357 Teaching and Learning in the Online Classroom - Level I 1 (1,0,0,0)**

This course introduces pedagogical principles, skills and strategies for effective online teaching and online course management. Participants gain hands-on experience in using web-based chat rooms, email and discussion boards to increase student interaction in their online courses. Participants begin revising course content for the web and developing activities and assignments appropriate for specific disciplines. Course is taught exclusively within WebCT to practicing educators.

**EPD 358 Teaching and Learning in the Online Classroom - Level II 1 (1,0,0,0)**

Introduction to instructional strategies for online instruction. Students will explore the differences between live and online instruction, gain experience in using search engines/subdirectories to conduct research and critically evaluate online resources for instruction. Course is taught exclusively online to practicing educators.

**EPD 359 Teaching and Learning in the Online Classroom - Level III 1 (1,0,0,0)**

Participants learn how to revise course content, develop activities and assessment methods appropriate for specific disciplines. Ethical and legal issues associated with online learning will also be discussed. Course is taught exclusively online.

**EPD 361 Encouraging Communication in Online Courses 3 (3,0,0,0)**

This course provides insight in and methods for structuring an online course to maximize the quality on interactions among students, and between the instructor and students.

**EPD 362 Universal Design Principles for Online Learning 3 (3,0,0,0)**

In this hands-on course you will discover how the principles of Universal Design can help you create course content that can be accessed and used by anyone, including people with disabilities. By the end of the course, participants will have a good understanding of Universal Design Principles for Online Learning, know potential accessibility/usability issues that need to be considered in course design, and be able to create more accessible/usable course content.

**Educational Psychology****EPY 303 Educational Psychology 3 (3,0,0,0)**

General principles, theories and recent research evidence regarding human development, human learning and human motivation, especially as they pertain to classroom instruction.

Prerequisite: PSY 101; or SOC 101; or ANTH 101; and Admission to the Bachelor of Science degree program in Dental Hygiene.

**English as a Second Language****ESL 110B Integrated Skills I 3 (3,0,0,0)**

The goal of this course is students' acquisition and control of the sound structures and sentence patterns of basic introductory English.

Prerequisite: ESL Placement Test.

**ESL 111B Integrated Skills II 3 (3,0,0,0)**

The goal of this course is students' acquisition and control of the sound structures and sentence patterns of beginning – low level English.

Prerequisite: ESL Placement Test; or ESL 110B with a grade of C- or higher; or Instructor approval.

**ESL 115B Reading and Communication for International Students I 3 (3,0,0,0)**

Development of reading and communication skills through analysis of assigned texts, study of vocabulary and idioms; explanation of grammar difficulties as needed, and guided discussion.

Prerequisite: Placement Test.

**ESL 118B Reading and Communication for International Students II 3 (3,0,0,0)**

Development of reading and communication skills through analysis of assigned texts; study of vocabulary and idioms; explanation of grammar difficulties as needed; and guided discussion.

Prerequisite: Placement Test; or both ESL 110B and 115B.

**ESL 119B Reading and Communication for International Students III 3 (3,0,0,0)**

Development of reading and communication skills through analysis of assigned texts; study of vocabulary and idioms; explanation of grammar difficulties as needed; and guided discussion.

Prerequisite: Placement Test; or both ESL 110B and 115B.

**ESL 120 Integrated Skills III 3 (3,0,0,0)**

The goal of this course is students' acquisition and control of the basic sound structures and sentence patterns of beginning–mid Level English.

Prerequisite: ESL Placement Test; or ESL 111B with a grade of C- or higher; or Instructor approval.



**ESL 121 Integrated Skills IV 3 (3,0,0,0)**

The goal of this course is students' acquisition and control of the basic sound structures and sentence patterns of beginning–high level English.

Prerequisite: ESL Placement Test; or ESL 120 with a grade of C- or higher; or Instructor approval.

**ESL 122 Listening and Pronunciation 3 (3,0,0,0)**

The goal of this course is for students to improve sound production and listening comprehension specifically in vowel/consonant system, reduced forms, stress, and intonation.

Prerequisite: ESL Placement Test; or ESL 120 with a grade of C- or higher; or Instructor approval.

**ESL 123 Reading I 3 (3,0,0,0)**

The goal of this course is for students to develop intermediate–low level reading skills through analysis of assigned texts.

Prerequisite: ESL Placement Test; or ESL 121 with a grade of C- or higher; or Instructor approval.

**ESL 124 Grammar I 3 (3,0,0,0)**

The goal of this course is students' acquisition and control of the basic structures and sentence patterns of intermediate–low Level English.

Prerequisite: ESL Placement Test; or ESL 121 with a grade of C- or higher; or Instructor approval.

**ESL 125 Reading II 3 (3,0,0,0)**

The goal of this course is for students to develop intermediate–mid level reading skills through analysis of assigned texts.

Prerequisite: ESL Placement Test; or ESL 123 with a grade of C- or higher; or Instructor approval.

**ESL 126 Grammar II 3 (3,0,0,0)**

The goal of this course is students' acquisition and control of the basic structures and sentence patterns of intermediate–high Level English.

Prerequisite: ESL Placement Test; or ESL 124 with a grade of C- or higher; or Instructor approval.

**ESL 127 Listening and Note-taking 3 (3,0,0,0)**

The goal of this course is to improve students' listening comprehension, speaking, and note-taking skills in preparation of lecture-based courses.

Prerequisite: ESL Placement Test; or ESL 126 with a grade of C- or higher; or Instructor approval.

**ESL 129 Writing I 3 (3,0,0,0)**

This goal of this course is for ESL students to write short simple, compound, and complex sentences without global errors and to form clear, short paragraphs.

Prerequisite: ESL Placement Test; or ESL 126 with a grade of C- or higher; or Instructor approval.

**ESL 132 Reading III 3 (3,0,0,0)**

The goal of this course is for students to develop intermediate–high level reading skills through analysis of assigned texts.

Prerequisite: ESL Placement Test; or ESL 125 with a grade of C- or higher; or Instructor approval.

**ESL 133 Speech 3 (3,0,0,0)**

The goal of this course is for ESL students to speak effectively and give formal speeches in front of a large group.

Prerequisite: ESL Placement Test; or ESL 129 with a grade of C- or higher; or Instructor approval.

**ESL 134 Beginning Conversation 3 (3,0,0,0)**

The goal of this course is for ESL students to gain confidence in speaking, increase vocabulary, start conversations, and improve fluency and accuracy.

Prerequisite: ESL Placement Test; or ESL 121 with a grade of C- or higher; or Instructor approval.

**ESL 135 Reading IV 3 (3,0,0,0)**

The goal of this course is for students to develop advanced–low level reading skills through analysis of assigned texts.

Prerequisite: ESL Placement Test; or ESL 132 with a grade of C- or higher; or Instructor approval.

**ESL 136 Intermediate Conversation 3 (3,0,0,0)**

The goal of this course is for ESL students to form/support/argue opinions in conversations and increase fluency and accuracy.

Prerequisite: ESL Placement Test; or ESL 124 or 134 with a grade of C- or higher; or Instructor approval.

**ESL 138 Writing II 3 (3,0,0,0)**

The goal of this course is for ESL students to write complex paragraphs.

Prerequisite: ESL Placement Test; or ESL 129 with a grade of C- or higher; or Instructor approval.

**ESL 139 Writing III 3 (3,0,0,0)**

The goal of this course is for ESL students to write essays.

Prerequisite: ESL Placement Test; or ESL 135 and 138 both with a grade of C- or higher; or Instructor approval.

**ESL 140 Advanced English Editing 3 (3,0,0,0)**

The goal of this course is for advanced ESL speakers to edit their own grammar mistakes in writing.

Prerequisite: ESL Placement Test; or ESL 139 with a grade of C- or higher; or Instructor approval.

**ESL 190 ESL Capstone Sequence 3 (3,0,0,0)**

The goal of this capstone course is for ESL students to write research essays based on analysis of audience, purpose, and rhetorical situations in college-level texts.

Prerequisite: ESL Placement Test; or ESL 139 with a grade of C- or higher; or Instructor approval.



**ESL 195 TEAS Prep Course for Medical Students 3 (3,0,0,0)**

The goal of this course is for native English and advanced ESL speakers to acquire test-taking strategies and skills/content in the reading and English/language sections of the Test for Essential Academic Skills (TEAS).

Prerequisite: Instructor approval

**Electronics Engineering Technology****ET 100B Survey of Electronics 3 (3,0,0,0)**

Introduces modern electronics technology and electronics concepts including voltage, current, resistance, power and frequency and functional analysis of simple analog and digital systems.

**ET 104B Fabrication and Soldering Techniques 0.5-6 (0,1-12,0,0)**

Introduces electronic fabrication skills, tool operations applied to fabrication techniques of simple circuit boards, reading of schematic diagrams, soldering, drafting and wire wrapping.

**ET 106B Test Equipment Operation 3 (2,2,0,0)**

An introduction to the use and operation of general and special purpose electronic test equipment, includes oscilloscope, multi-meters, electronic multimeters, signal generators and transistor/capacitor testers.

**ET 108B Telecommunications and the Information Age 3 (3,0,0,0)**

An introductory course that looks at the Telecommunications Industry from a technology standpoint. The student will learn about the telephone and telephone system, local area networks, fiber optics, how a modem works, wireless communications and other related topics.

**ET 111B Mathematics for Electronics Applications 3 (3,0,0,0)**

An electronics algebra/trigonometry course which includes signed numbers, laws of exponents, proportions, logarithms, trigonometric functions, polar and rectangular conversions. A working knowledge of pre-algebra is strongly suggested; a satisfactory ACT/SAT/Placement Test score and/or completion of a rigorous secondary school algebra course are good indicators.

Prerequisite: MATH 093 with a grade of C or better or MATH 116 with a grade of C or better; or a satisfactory ACT/SAT/Placement Test score in MATH 95 or above; or Program approval.

**ET 113B Introduction to Radar 3 (3,0,0,0)**

This course is an introduction to fundamental principles of radar. Topics include keys to a fundamental understanding of radar, directivity and the antenna beam, pulsed-delay and FM ranging, pulse compression, the Doppler effect, the pulsed spectrum, measuring range rate, choice of low and high PRFs, automatic tracking, and resolution requirements.

Prerequisite: ET 132B.

**ET 125B RF and Microwave Devices 3 (3,0,0,0)**

This course includes a close look at various semiconductor RF and microwave devices, including microwave vacuum tubes, oscillators, amplifiers and power supplies.

**ET 131B DC for Electronics 4 (3,3,0,0)**

Basic concepts of passive electronic circuits to include laws, measurements, and calculations relating to direct current. Components and general purpose test equipment are used in practical experimentation. Students in this course should have a working knowledge of algebra

**ET 132B AC for Electronics 4 (3,3,0,0)**

Basic concepts of passive electronics circuits to include laws, measurements, and calculations relating to alternating current. Basic active components and applications are also introduced. Components and general purpose test equipment are used in practical experimentation.

Prerequisite: ET 111B or MATH 127; and ET 131B (with a grade of C or higher) or MT 102B (with a grade of B or higher).

**ET 138B Introduction to Slot Machine Technology 0.5-3 (0.5-3,0,0,0)**

An introduction course detailing the theory and operation of typical slot machines. Installation, maintenance and troubleshooting of slot machines and their peripherals will also be covered in this course. This course can be repeated for up to a total of 3 credits.

**ET 155B Home Technology Convergence 3 (3,0,0,0)**

This course prepares students for the CompTIA's Home Technology Integration (HTI+) certification exam (HTO-10, HTI+ Residential System Examination and the HTO-102 HTI+ Systems Infrastructure and Integration Examination for HTI+ certification) and provides hands-on exercises in home technology integration skills. Topics covered include integration and internet control of residential subsystems, structured wiring systems integration, and an introduction to computer networking, safety, and troubleshooting. Subsystems discussed are home security, audio/video, computer networks, electrical wiring, HVAC (Heating Ventilation/Air Conditioning), irrigation, cable/satellite, broadband, and telecommunications. Hands-on lab experiences cover commercial wiring and the installation and troubleshooting of integrated system.

**ET 205B Power Supply Theory and Repair 1-4 (1-3,0-2,0,0)**

The course covers the theory, operation, troubleshooting, and repair of unregulated, series linear and switching power supplies. A basic understanding of DC circuit theory and a rudimentary understanding of AC from work experience is recommended for students of this course. Can be repeated for a total of 4 credits.



**ET 206B Video Monitor Theory and Repair 1-4 (0-3,0-3,0,0)**

Covers the theory, operation, repair, and troubleshooting of CRT displays, LCDs, and the power supplies which are found in most CRT and LCDs. The hands-on labs will include troubleshooting on equipment from various manufacturers. This course is designed for students who have completed courses on DC and digital electronics or have at least 2 years of electronic experience. Can be repeated for up to a total of 4 credits.

**ET 212B Digital Logic I 4 (3,3,0,0)**

This course is the first semester of a one-year course to study digital logic. It covers number system, logic gates, Boolean algebra and Karnaugh mapping, binary arithmetic and adders, combinational/sequential circuits and their applications. Students taking this course should have a basic understanding of electrical/electronics theory.

**ET 213B Digital Logic II 4 (3,3,0,0)**

Counters and registers, TTL and CMOS integrated circuits, MSI logic circuits, analog/digital interfacing circuits, memory devices, and introduction to microprocessors and microcomputers.

Prerequisite: ET 212B.

**ET 220B Solid State Devices and Circuits I 4 (3,3,0,0)**

Covers characteristics, analysis and operation of rectifier diodes, Zener and other diodes; BJT transistor small-signal and power amplifiers; FET and MOSFET transistors and circuitry.

Prerequisite: ET 132B or Instructor approval.

**ET 222B Solid State Devices and Circuits II 4 (3,3,0,0)**

This course covers amplifier-frequency responses for both discrete and integrated circuits, op-amp circuits, thyristors, oscillators, active filters, and voltage regulators.

Prerequisite: ET 220B.

**ET 224B Vacuum Tube Theory 1-4 (1-3,0-2,0,0)**

This course covers the theory of operation for all electronic tube devices and focuses on the operation of tube based devices Diodes, Triodes, Tetrodes, and Pentodes. The course also covers the use of tube devices in basic circuits such as power supplies. The course is designed for students who have completed courses in electronic devices or have at least 2 years of electronic experience. Can be repeated for a total of 4 credits.

Prerequisite: ET 132B.

**ET 228B Data Acquisition 3 (2,3,0,0)**

This course provides a detailed look at data acquisition components: analog-to-digital converters (ADCs), digital-to-analog converters (DACs), sample and hold amplifiers, sensors, and PLLs. Op-amp theory and applications are also covered.

Prerequisite: ET 132B and 212B.

**ET 238B Device Peripherals 3 (2,2,0,0)**

Covers the key components and sub-assemblies used in slot machines and other self-service devices such as Kiosks, and ATMs. Instruction includes topics such as opto-couplers, thyristors, bill acceptors, and interface standards, microprocessors/controllers, power supplies, switches, and displays.

Prerequisite: ET 131B and 212B.

**ET 270B Electronics Bench Servicing Techniques 4 (3,3,0,0)**

Troubleshooting and servicing television, radio and other home entertainment equipment utilizing general purpose and special purpose test equipment.

**ET 276B Telecommunications 4 (3,3,0,0)**

Topics covered include the Public Switched Telephone Network, the subscriber loop interface, the telephone instrument, trunk circuits, T-Carrier, switching, Voice over IP (VoIP) and telephone company operations.

Prerequisite: ET 131B.

**ET 282B Microprocessors I 3 (2,3,0,0)**

A course on microprocessors and interfacing with real world devices such as drones. Microprocessors will be programmed using assembly and higher level languages such as C. A microprocessor's instruction set will be covered along with its architecture and interface.

Prerequisite: ET 132B and 212B; or Instructor or Program approval.

**ET 285B Electronics Certification/ Examination Preparation 3 (3,0,0,0)**

The course is a review of DC and AC Electronic theory; solid state devices and circuits; digital circuits; microprocessor/microcontroller circuits; operation of test instruments and measurement methods, and troubleshooting of electronics circuits. The course prepares students for certification and employment tests in electronics.

**ET 289B Electrical Troubleshooting 1-4 (1-3,0-3,0,0)**

Maintenance and service of electronic equipment and troubleshooting techniques using electrical measuring and test devices. This course is designed for students who have completed electronics courses that cover DC-AC electronics, semiconductor devices, and digital electronics or have at least 2 years of experience in electronics. Can be repeated for up to a total of 4 credits.

**ET 293B Telecommunication Transmission Methods 3 (2,3,0,0)**

Topics include: Amplitude, Frequency and Pulse Modulation, Modem technologies (wireline, cable and DSL), error control, cyclic codes (CRC-16, Hamming, etc.). Circuit switched and packet transmission of voice and data over SONET and wireless media (fiber optic and microwave) are emphasized.

Prerequisite: ET 132B.





**ET 294B EET Capstone 3 (2,2,0,0)**

Review of electrical circuits, analog and digital electronics, micro-processors; design, fabrication and testing of an emphasis/concentration based project including schematics, wiring diagrams, and software; brief presentation and demonstration of working prototype. This course must be completed for each emphasis/concentration attempted. Course may be repeated up to 9 credits.

Prerequisite: ET 293B or 238B.

**ET 301 Customer Service Management 3 (3,0,0,0)**

This course provides students with an introduction and basic overview of the importance of customer relations and service in business and industry. The course deals with why and how organizations must reach out to customers so they may understand and gain the benefits in doing so. It is about satisfying the customers. It challenges students to use their critical and creative skills in all aspects of the subject.

Prerequisite: Department approval.

**ET 313 Advanced Radar 3 (2,2,0,0)**

Increases understanding of Moving Target Indication (MTI) and Moving Target Detecting (MTD) processing.

Prerequisite: ET 113B.

**ET 389 Advanced Electronics Troubleshooting 3 (2,3,0,0)**

This course is a study of the systematic techniques for troubleshooting electronic equipment. Logical procedures are emphasized rather than specific circuits. Students are required to troubleshoot and repair selected equipment.

Prerequisite: ET 220B and 289B.

**ET 410 Business Telecommunications 3 (3,0,0,0)**

This course provides students with an introduction and basic overview of the field of Business Telecommunications, as well as an introduction to current management and strategic issues. Students will have a working knowledge of many of the telecommunications components and associated terminology as they apply to business in this age of electronic communication.

Prerequisite: ET 108B.

**ET 420 Control Systems 3 (2,3,0,0)**

This course provides various controller synthesis methods that are particularly relevant in practice. The topics include PID design, algebraic design, optimal control and specific control architectures such as cascade control and feed forward approaches. Moreover, the course puts emphasis on fundamental limits that are introduced by practical equipment such as sensors and actuators.

Prerequisite: MATH 126; and either MATH 127 or 128; and ET 228B.

**ET 430 Electrical Power Systems 3 (2,3,0,0)**

This course studies motors, generators, and techniques employed in the electric power distribution. Topics include: magnetism and magnetic circuits, DC motors and generators, single and three-phase transformers and power systems, single line diagrams, three-phase fault calculations, load considerations, power factor correction, and system considerations.

Prerequisite: MATH 126; and either MATH 127 or 128; and ET 132B.

**ET 494 Senior Project 3 (2,3,0,0)**

This course requires the planning and designing of a project in consultation with faculty advisors and industry contacts (as required). The project is built, tested and demonstrated. Written technical reports and oral presentations of the project are required. This class must be taken in the student's final semester.

Prerequisite: Department approval.

### Food and Beverage

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**FAB 102 Sanitation for the Food Service Industry 2 (2,0,0,0)**

Designed to provide an overview of the theory and practice of food safety and sanitation for food service operations. Emphasis is placed on methods that help an operation prevent foodborne illness outbreaks. Students have an opportunity to earn a ServSafe Food Protection Manager Certification.

**FAB 112 Restaurant Management I 3 (2,3,0,0)**

Designed to provide an overview of the principles of restaurant management and operations. During the laboratory portion of the course students will develop skills through hands-on practical application in Russell's (CSN's on-campus, full service, open to the public restaurant).

Prerequisite: ENG 100 or 101 or 102 or 107 or 113 or 205 or higher with a grade of C or better.

**FAB 160 Hospitality Purchasing 3 (3,0,0,0)**

Students learn the fundamental principles of purchasing food, beverages, supplies, equipment, and contract services.

Prerequisite: MATH 104B or above (except MATH 122, 123).

**FAB 167 Food Service Nutrition 2 (2,0,0,0)**

Designed to teach the fundamentals of nutrition and the basics of nutritionally balanced recipe and menu planning.

**FAB 190B Bartending 3 (2,2,0,0)**

A basic class devoted to developing the skills necessary to function as a bartender in a Hospitality operation. This is a hands-on course covering mixology of liquors and the handling of all types of alcoholic beverages. Must be 21 or older



**FAB 210 Fundamentals of Food and Beverage Control 3 (3,0,0,0)**

Cost control in the food service operation through sound procedures, controlled food production, inventories, storeroom issues, standardized recipes, effective labor practices and maintenance of records.

Prerequisite: FAB 160; and MATH 104B or 120 or 124 or 126.

**FAB 230 Menu Planning 3 (3,0,0,0)**

The basics of planning menus for a variety of food service establishments. Students will learn marketing and merchandising menus, menu development and costing, basic menu printing software and develop their own individual menus.

Prerequisite: FAB 112 with a grade of C or better.

**FAB 271 Wine Appreciation 3 (3,0,0,0)**

A comprehensive course on the wines of the world. The art of wine making, geographical identification of wine regions, ordering and serving of fine wines, history of wines and the proper matching of wines with foods. Each class meeting will include the tasting of several wines. Minimum age for enrollment is 21.

**FAB 272 Liquor and Bar Management 3 (3,0,0,0)**

A survey of the service and control of wines, liquors and beers, including discussion of taxes and local, state and national laws relating to the liquor industry. Student must be 21 or older.

**FAB 285 Catering Management 3 (3,0,0,0)**

Course teaches students how to market, sell, organize, plan, and execute catered affairs. Includes various types of meeting room setups used to meet customer requirements.

Prerequisite: FAB 112 or TCA 188 with a C- or better.

**FAB 295 Work Experience in Food Service 1 (0,0,0,1)**

In addition to the academic requirements, the Department of Hospitality Management requires 200 hours of acceptable employment in the hospitality industry. This work experience will be measured qualitatively as well as quantitatively. The work experience requirement should be met during the school year or in summers. Students who plan to transfer to UNLV will be able to transfer a maximum of 500 hours of employment toward UNLV's 1000-hour employment requirement. International students must go to the office of International Student Services to verify employment eligibility and obtain authorization. This course can be repeated up to a maximum of four credits. Grade will be given upon verification of employment.

**Filipino****FIL 101B Basics of Filipino I 3 (3,0,0,0)**

A course emphasizing spoken communication. Focus is on speaking, listening, reading and writing skills. A vocabulary of Filipino-English words developed.

**FIL 102B Basics of Filipino II 3 (3,0,0,0)**

A course continuing the development of skills acquired in FIL 101B. Increased fluency and further vocabulary development stressed.

Prerequisite: FIL 101B.

**FIL 111 First Year Filipino I 4 (4,0,0,0)**

The development of language skills in listening, speaking, reading and writing. Oral emphasis.

**FIL 112 First Year Filipino II 4 (4,0,0,0)**

A second-semester course designed to continue the development of language skills learned in FIL 111.

Prerequisite: FIL 111.

**Banking and Finance****FIN 101 Personal Finance 3 (3,0,0,0)**

A study of the techniques of managing personal income, savings and expenses, making wise purchase decisions, and insuring, investing and controlling financial resources.

**FIN 115 Introduction to Investments 3 (3,0,0,0)**

Major types of investment securities and the markets in which they are traded. Mechanics of making an investment, including basic analytical and valuation techniques and a survey of investment literature and terms.

**Floral Design****FLOR 102B Introduction to Floral Design 3 (3,1,0,0)**

Introductory course covering floral design theory, history, techniques and the skills currently required for employment in the floral design industry. Lab experience covers construction of basic floral products. Successful completion of course offers entry-level employment in field.

**FLOR 106B Permanent Botanicals 3 (3,1,0,0)**

Designed to provide the student with theory and lab experience in the use of artificial materials and dried flowers. Emphasis on mechanics and techniques of construction for home interiors, as well as commercial applications. Preservation processes and interiorscapes included.

Prerequisite: FLOR 102B.

**FLOR 108B Event Balloon Sculptures 1.5 (1,1,0,0)**

Course will address the planning, purchasing, construction, installation and strike of large event balloon decor. Arches, themed decor, props and large sculptures will be constructed.

**FLOR 115B Mega-Department Practices 3 (3,1,0,0)**

Addresses workplace practices common to mega-floral settings like those found in resorts and supermarkets. Job application, task analysis and interiorscape planning/installation are covered.

Prerequisite: FLOR 102B.



**FLOR 202B Tributes and Traditions 3 (2,2,0,0)**

A study of the effects of international influences on florals. Cultural differences in expression through floral tributes will be explored through customs, practices and traditions of many countries. Retail practices in the handling and styling of floral tributes specific to funerals with cross applications to other situations.

Prerequisite: FLOR 102B.

**FLOR 204B Traditional Weddings 3 (2,2,0,0)**

Designed to provide the student with theory and lab experience in the styling of floral pieces specific to weddings. Body flowers, carrying pieces, ceremony and reception designs will be executed. Consultation, service and delivery procedures will be covered, as well as ordering and pricing.

Prerequisite: COM 115 and FLOR 102B.

**FLOR 206B Beginning Ikebana 3 (2,2,0,0)**

Course includes history, techniques and skills specific to the Japanese art of floral design with direct application to commercial floristry. Specialized tools and containers will be required to complete lab projects reflecting the many styles of Ikebana designs.

Prerequisite: FLOR 102B.

**FLOR 208B Creativity and Competition 3 (2,2,0,0)**

Principles and practices of the creative process will be developed to enhance design skills. Students will apply these skills to prepare for industry competition.

Prerequisite: FLOR 102B.

**FLOR 216B Advanced Ikebana 3 (2,2,0,0)**

A continuation of FLOR 206B Beginning Ikebana. In-depth study of advanced styles and masters of Ikebana.

Prerequisite: FLOR 206B.

**FLOR 220B Events and Display 3 (2,2,0,0)**

Comprehensive information regarding planning, organizing, managing and delivering designs for special occasions. Party props, room decor, table treatments, lighting and display elements are emphasized along with art principles and creative thematic approaches to floral design.

Prerequisite: FLOR 102B.

**FLOR 224B Techniques and Mechanics 1.5 (1.5,0.5,0,0)**

Course addresses unique approaches to floral design mechanics and techniques for advanced design situations, including working in glass, hi-style, bridal/body flowers, naturalistic applications and European design.

Prerequisite: FLOR 102B or Instructor approval.

**FLOR 225B Color and Product Mix 1.5 (1.5,0.5,0,0)**

Course addresses the use of color as an aesthetic sales tool in the manufacture of floral products. Focus is on selection of product as it relates to color, as well as combining materials to maximize each composition in respect to texture, unity, rhythm, line, form, and balance.

Prerequisite: FLOR 102B or Instructor approval.

**FLOR 240B Advanced Weddings 3 (2,2,0,0)**

Designed to provide the student with theory and lab experience in the styling of floral pieces specific to weddings. Adapting European Designs and techniques. Body flowers, carry pieces, ceremony and reception designs will be executed. Consultation, service and delivery procedures will be covered, as well as ordering and pricing.

Prerequisite: FLOR 204B.

**FLOR 295B Floral Careers Internship 1-4 (0,0,0,5-20)**

Designed to provide the student with on-the-job supervised and educationally directed work experience in the floral industry. One credit may be earned for each 75 hours worked. Variable to four credits per semester, repeatable not to exceed eight credits total. International students must go to the International Center to verify employment and obtain authorization. After registering, contact Floral Design Program for placement. Instructor approval required.

**FLOR 299B Selected Topics 1-5 (1-3,0-4,0,0)**

Topics will vary and cover both business and design information relevant to commercial floristry, including industry experts and hands-on labs. Dates and times will vary.

**Facility Maintenance and Manufacturing****FMM 101B Introduction to Workplace Safety 1 (1.5,0,0,0)**

This course provides an overview of 29 CFR 1910 and 1926 as applied to the Manufacturing and Facilities Maintenance field. This course places emphasis on OSHA regulations and policies. Graded Pass/Fail.

**FMM 103B First Aid/CPR 0.5 (0.66,0,0,0)**

This course covers the required items for certification of basic first aid and CPR. American Heart Association certification card will be issued upon successful completion of the course. Graded Pass/Fail.

**FMM 105B Six Sigma Yellow Belt 2 (2,0,0,0)**

The Six Sigma Yellow Belt course provides overall insight into the techniques of Six Sigma, its metrics, and basic improvement methodologies. The course also provides an introduction to process management and the basic tools of Six Sigma, giving students a stronger understanding of its processes. Graded Pass/Fail.



**FMM 107B Six Sigma Green Belt 2 (2,0,0,0)**

The Six Sigma Green Belt course provides an individual with an oversight of the skills required to function within his or her function-specific area of an organization. The course also provides participants with enhanced problem-solving skills, including an emphasis on the DMAIC (Define, Measure, Analyze, Improve, and Control) model. Graded Pass/Fail.

**FMM 111B N.C.C.E.R. Core 4 (4,0,0,0)**

The course uses basic safety and workplace modules from the National Center for Construction Education and Research (NCCER) that meet the technical skill goals of each of the content areas.

**FMM 113B N.C.C.E.R. Electrical 5 (3,2,0,0)**

The course uses modules from the National Center for Construction Education and Research (NCCER) that meet the technical skill requirements of individuals working in the Electrical field. Lab Volt equipment and troubleshooting activities are correlated to supplement the NCCER curriculum for hands-on practice and technical skills training.

Prerequisite: FMM 101B.

**FMM 115B Industrial Controls 5 (3,2,0,0)**

This course is designed to teach the theory and techniques of electric motor controllers. Students will select and mount control devices to form typical control circuits, and to troubleshoot them once a fault is inserted.

Prerequisite: FMM 101B.

**FMM 117B Control of Industrial Motors 4 (2,2,0,0)**

The course studies topics in industrial-motor control through the use of block, wiring, and schematic diagrams. Mechanical and electrical assembly of control circuits is accomplished without the use of hand tools.

Prerequisite: FMM 101B.

**FMM 121B Fundamentals of Pneumatics 4 (2,2,0,0)**

The course is divided into the study of the following subsystems: Pneumatics Fundamentals, Electrical Control of Pneumatic Systems, Pneumatic Applications- PLC (programmable logic controller), Troubleshooting Pneumatic Circuits, Servo Control of Pneumatic Systems, and Sensors.

Prerequisite: FMM 101B.

**FMM 123B Hydraulic Systems 4 (2,2,0,0)**

The training program is divided into the following subsystems: Hydraulics Fundamentals, Electrical Control of Hydraulic Systems, Hydraulic Applications- PLC (programmable logic controller), Troubleshooting Hydraulic Circuits, Servo Control of Hydraulic Systems, and Sensors.

Prerequisite: FMM 101B.

**FMM 131B Manufacturing Systems I 4 (2,2,0,0)**

Simulates the operation of a production line allowing students to familiarize themselves with manufacturing applications commonly encountered in modern facilities and to experience realistic industry situations.

Prerequisite: FMM 101B; and MT 115B with a grade of C or higher.

**FMM 133B Manufacturing Systems II 4 (2,2,0,0)**

Continuation of FMM 131 with the addition of real-world industrial components. Students will be able to strengthen their understanding of a number of related technologies, including artificial vision, power electronics, automatic storage and retrieval, sensors, and wiring.

Prerequisite: FMM 131B with a grade of C or higher.

**FMM 141B Mechanical Systems I 4 (2,2,0,0)**

Covered topics include the installation, use, maintenance, and troubleshooting of mechanical drive components. The systems are divided into five levels, and each level is further divided into specific topics which deal with the components encountered in the industry. The learning is based on practical, hands-on tasks.

**FMM 143B Mechanical Systems II 4 (2,2,0,0)**

Continuation of FMM 141B. This course covers the installation, use, maintenance, and troubleshooting of mechanical drive components covered in Level I in greater detail. There is a stronger concentration of hands-on tasks.

Prerequisite: FMM 141B with a grade of C or higher.

**FMM 145B Robotics in the Manufacturing Industry 3 (1,2,0,0)**

This course is designed to teach the theory and techniques of industrial robotics, through the curriculum and hands-on exercises. Topics covered are programming and operation of industrial robotics. Additional topics include automated work cells and computer integrated manufacturing.

Prerequisite: FMM 101B.

**FMM 151B N.C.C.E.R. HVAC 5 (3,2,0,0)**

This course uses HVAC modules from the National Center for Construction Education and Research (NCCER) that meet the technical skill requirements of individuals working in the HVAC field. Training equipment and troubleshooting activities are correlated to supplement the NCCER curriculum for hands-on practice and technical skills training.

Prerequisite: FMM 101B.



**FMM 153B HVAC Energy Management 4 (2,2,0,0)**

This course is designed to introduce students to the principles and components of air handling and energy management. Additional topics include manual system control as well as automatic control via a programmable logic controller (PLC).

Prerequisite: FMM 101B.

**FMM 161B N.C.C.E.R. Plumbing 5 (3,2,0,0)**

This course uses plumbing modules from the National Center for Construction Education and Research (NCCER) that meet the technical skill requirements of individuals working in the plumbing field. Training equipment and troubleshooting activities are correlated to supplement the NCCER curriculum for hands-on practice and technical skills training.

Prerequisite: FMM 101B.

**FMM 171B Internship 2 (1,0,0,6)**

Supervised work experience with selected manufacturing employers. All core classes must be completed with a minimum 2.5 GPA. Course can be repeated up to three (3) times.

Prerequisite: Director or Department Chair approval.

## French

**FREN 101B Conversational French I 3 (3,0,0,0)**

A course emphasizing spoken communications. Speaking skills, oral listening skills, reading and writing skills explored. A vocabulary of French-English words developed.

**FREN 102B Conversational French II 3 (3,0,0,0)**

A course emphasizing a continuation of skills acquired in FREN 101B. Increased fluency and further vocabulary development stressed.

**FREN 103 First Year Business French I 4 (4,0,0,0)**

A course that deals intensively with French business practices and French business language intended for students who encounter French-speaking clients in various professional situations.

**FREN 104 First Year Business French II 4 (4,0,0,0)**

An applied language course for learners who want to communicate with ease with French-speaking clients and further their knowledge of commercial and managerial French.

Prerequisite: FREN 103.

**FREN 107 French for Hotel, Restaurant and Tourism I 3 (3,0,0,0)**

Students with no prior knowledge of French who work in hotels, restaurants or in tourist settings learn to communicate effectively with their French-speaking clientele.

**FREN 111 First Year French I 4 (4,0,0,0)**

The development of language skills in listening, speaking, reading and writing. Emphasis is placed on communication in all four language acquisition skills.

**FREN 112 First Year French II 4 (4,0,0,0)**

The further development of language skills in listening, speaking, reading and writing. Emphasis is placed on more sophisticated communication in all four language acquisition skills.

Prerequisite: FREN 111 or equivalent.

**FREN 203 Second Year Business French I 4 (4,0,0,0)**

An applied intermediate language course for learners who want to further perfect their ability in business French and their knowledge of French business practices.

**FREN 204 Second Year Business French II 4 (4,0,0,0)**

An applied intermediate language course for learners who want to perfect their language abilities and knowledge of business French and French business practices.

Prerequisite: FREN 203.

**FREN 207 French for Hotel, Restaurant and Tourism II 2 (2,0,0,0)**

Students with previous knowledge of French in the area of hotel, restaurant and tourism increase their communication skills in their respective employment fields.

Prerequisite: FREN 107.

**FREN 211 Second Year French I 3 (3,0,0,0)**

Continuation of French language skills and intensive reviews of grammatical structures, listening, speaking, reading and writing skills through an introduction to French literary readings.

Prerequisite: FREN 112 or equivalent.

**FREN 212 Second Year French II 3 (3,0,0,0)**

Further amelioration and perfection of grammatical, listening, speaking, reading and writing skills through selected French literary readings.

Prerequisite: FREN 211 or equivalent



## Fire Science Technology

**FT 101 Principles of Emergency Services 3 (3,0,0,0)**

This course provides an overview to fire protection and emergency services; career opportunities in fire protection and related fields; culture and history of emergency services; fire loss analysis; organization and function of public and private fire protection services; fire departments as part of local government; laws and regulations affecting the fire service; fire service nomenclature; specific fire protection functions; basic fire chemistry and physics; introduction to fire protection systems; introduction to fire strategy and tactics; life safety initiatives. FESHE Core Course.

**FT 104 Nevada Firefighter I 3 (3,0,0,0)**

This course will familiarize the student with the general rules and regulations of fire fighting, use and explanation of forcible entry, protective breathing apparatus, fire streams, first aid, ropes, salvage, fire hose, nozzles and apparatus, ladders, ventilation, inspection, rescue, sprinklers, fire alarms and communications, safety and fire behavior.

Prerequisite: FT 101.

**FT 105 Fire Behavior and Combustion 3 (3,0,0,0)**

This course explores the theories and fundamentals of how and why fires start, spread and are controlled. FESHE Core Course.

**FT 109B Internship in Firefighting 1 (0,0,0,4)**

This course will provide students with work experience and skills sign-offs that meet the National Fire Protection Association's Firefighter I criteria. This course will make the student eligible to take the Nevada Fire Fighter I exam. Students must have proof of insurance.

Prerequisites: FT 101 and 104; and EMS 108B.

**FT 110 Basic Wildland Firefighting 3 (3,0,0,0)**

Addresses the basic elements of wildland fire protection, fire behavior, department organization, apparatus and equipment, fire safety and incident command organization.

**FT 121 Fire Prevention 3 (3,0,0,0)**

This course provides fundamental knowledge relating to the field of fire prevention. Topics include: history and philosophy of fire prevention; organization and operation of a fire prevention bureau; use and application of codes and standards; plans review; fire inspections; fire and life safety education; and fire investigation. FESHE Core Course.

**FT 125 Building Construction for Fire Protection 3 (3,0,0,0)**

This course provides the components of building construction related to firefighter and life safety. The elements of construction and design of structures are shown to be key factors when inspecting buildings, preplanning fire operations, and operating at emergencies. FESHE Core Course.

**FT 126 Fire Investigation I 3 (3,0,0,0)**

This course is intended to provide the student with the fundamentals and technical knowledge needed for proper fire scene interpretations, including recognizing and conducting origin and cause, preservation of evidence and documentation, scene security, motives of the firesetter, and types of fire causes. FESHE Non-Core Course.

Prerequisite: FT 101 and 125; or Instructor approval.

**FT 131 Hazardous Materials Chemistry 3 (3,0,0,0)**

This course provides basic chemistry relating to the categories of hazardous materials including recognition, identification, reactivity, transportation, awareness, and health hazards encountered by emergency services. FESHE Non-Core Course. This course qualifies the student to take the State Fire Marshal Hazardous Materials Awareness and Operations State Exam.

Prerequisite: FT 101 or Instructor approval.

**FT 150 Apparatus and Equipment 3 (3,0,0,0)**

Operation of fire department apparatus and equipment. Driving techniques, traffic laws and restrictions relating to fire apparatus. Construction and maintenance of equipment also stressed.

**FT 151 Fire Protection Hydraulics and Water Supply 3 (3,0,0,0)**

This course provides a foundation of theoretical knowledge in order to understand the principles of the use of water in fire protection and to apply hydraulic principles to analyze and to solve water supply problems. FESHE Non-Core Course.

Prerequisite: FT 101 and MATH 104B; or Instructor approval.

**FT 152 Legal Aspects of Emergency Services 3 (3,0,0,0)**

This course will address the Federal, State, and local laws that regulate emergency services and include a review of national standards, regulations, and consensus standards. FESHE Non-Core Course.

Prerequisite: FT 101 or Instructor approval.



**FT 153 Occupational Safety and Health for Emergency Services 3 (3,0,0,0)**

This course introduces the basic concepts of occupational health and safety as it relates to emergency service organizations. Topics include risk and hazard evaluation and control procedures for emergency service organizations. FESHE Non-Core Course.

Prerequisite: FT 104 or Instructor approval.

**FT 154 Principles of Fire and Emergency Services Safety and Survival 3 (3,0,0,0)**

This course introduces the basic principles and history related to the national firefighter life safety initiatives, focusing on the need for cultural and behavior change throughout the emergency services. FESHE Core Course.

Prerequisite: FT 101 or Instructor approval.

**FT 190 Fire Instructor 3 (3,0,0,0)**

Topics included are the role of the instructor, preparing instructional objectives, communication skills, use of visual aids, and practice teaching techniques. Meets NFPA Standard 1041, Fire Instructor Training. Those completing the course will be certified as Fire Instructor I by the Nevada State Fire Marshal.

Prerequisite: FT 101 and 104; or Instructor approval.

**FT 191 Introduction to Company Officer 3 (3,0,0,0)**

This is an entry-level course which prepares the students to recognize the fire service company officer's role. It will examine group dynamics, communication, fire department organizational structure, fire ground and station management. This course partially meets the National Fire Protection Association's standard for Fire Officer. This course qualifies the student to take the State Fire Officer I exam.

Prerequisite: FT 101 and 104; or Instructor approval.

**FT 224 Fire Protection Systems 3 (3,0,0,0)**

This course provides information relating to the features of design and operation of fire alarm systems, water-based fire suppression systems, special hazard fire suppression systems, water supply for fire protection and portable fire extinguishers. FESHE Core Course.

**FT 226 Fire Investigation II 3 (3,0,0,0)**

This course is intended to provide the student with advanced technical knowledge on the rule of law, fire scene analysis, fire behavior, arson evidence collection and preservation, scene documentation, case preparation, and courtroom testimony. FESHE Non-Core Course.

Prerequisite: FT 126.

**FT 243 Strategy and Tactics 3 (3,0,0,0)**

This course provides the principles of fire ground control through utilization of personnel, equipment, and extinguishing agents. FESHE Non-Core Course.

Prerequisite: FT 101 and 104; or Instructor approval.

**FT 291 Fire and Emergency Services Administration 3 (3,0,0,0)**

This course introduces the student to the organization and management of a fire and emergency services department and the relationship of government agencies to the fire service. Emphasis is placed on fire and emergency service, ethics, and leadership from the perspective of the company officer. FESHE Non-Core Course.

Prerequisite: FT 101 or Instructor approval.

**FT 298 Seminar in Fire Management 3 (3,0,0,0)**

Selected topics in Fire Management.

**FT 300 Fire Dynamics 3 (3,0,0,0)**

This course examines the underlying principles involved in structural fire protection systems, building furnishings, and fire protection systems, including water-based fire suppression systems, fire alarm and detection systems, special hazard suppression systems, and smoke management systems. FESHE Non-Core Course.

Prerequisite: Instructor approval.

**FT 301 Political and Legal Foundations for Fire Protection 3 (3,0,0,0)**

This course examines the legal aspects of the fire service and the political and social impacts of legal issues. This course includes a review of the American legal system and in-depth coverage of legal and political issues involving employment and personnel matters, administrative and operational matters, planning and code enforcement, and legislative and political processes with regard to the fire service. FESHE Core Course.

Prerequisite: Instructor approval.

**FT 302 Fire and Emergency Services Administration 3 (3,0,0,0)**

This course is designed to be a progressive primer for students who want more knowledge about fire and emergency services administration. The course demonstrates the importance of the following skills necessary to manage and lead a fire and emergency services department through the challenges and changes of the 21st century: persuasion and influence, accountable budgeting, anticipation of challenges and the need for change, and using specific management tools for analyzing and solving problems. A central part of the course focuses on how the leadership of a fire and emergency services department develops internal and external cooperation to create a coordinated approach to achieving the department's mission. FESHE Core Course.

Prerequisite: Instructor approval.



**FT 303 Personnel Management for Fire and Emergency Services 3 (3,0,0,0)**

This course examines relationships and issues in personnel administration and human resource development within the context of fire-related organizations, including personnel management, organizational development, productivity, recruitment and selection, performance management systems, discipline, and collective bargaining. FESHE Core Course.

Prerequisite: Instructor approval.

**FT 304 Fire Prevention Organization and Management 3 (3,0,0,0)**

This course examines the factors that shape fire risk and the tools for fire prevention, including risk reduction education, codes and standards, inspection and plans review, fire investigation, research, master planning, various types of influences, and strategies. FESHE Core Course.

Prerequisite: Instructor approval.

**FT 305 Managerial Issues in Hazardous Materials 3 (3,0,0,0)**

This course presents current issues in management of a department-wide hazardous materials program. It includes issues that are pertinent to officers and managers in public safety departments, including regulations and requirements for hazardous materials (hazmat) preparedness, response, storage, transportation, handling and use, and the emergency response to terrorism threat/incident. Subjects covered include State, local, and Federal emergency response planning, personnel and training, and operational considerations such as determining strategic goals and tactical objectives. FESHE Non-Core Course.

Prerequisite: Instructor approval.

**FT 306 Financial Management for Fire and Emergency Services 3 (3,0,0,0)**

Provides an overview of fiscal administration in the public sector at all levels of government. Introduces students to basic concepts and practices in two key areas: government revenues and budgeting.

Prerequisite: Instructor approval.

**FT 400 Fire Investigation and Analysis 3 (3,0,0,0)**

This course examines the technical, investigative, legal, and social aspects of arson, including principles of incendiary fire analysis and detection, environmental and psychological factors of arson, legal considerations, intervention, and mitigation strategies. FESHE Non-Core Course.

Prerequisite: Instructor approval.

**FT 401 Fire Protection Structures and Systems 3 (3,0,0,0)**

This course examines the underlying principles involved in structural fire protection systems, building furnishings, and fire protection systems including water-based fire suppression systems, fire alarm and detection systems, special hazard suppression systems, and smoke management systems. FESHE Non-Core Course.

Prerequisite: Instructor approval.

**FT 402 Fire Related Human Behavior 3 (3,0,0,0)**

This course presents a study of human behavior in fire and other emergency situations. Students will examine current and past research on human behavior, systems models, life safety education, and building design to determine interactions of these areas in emergency situations. Students will develop an understanding of a best-practice building life safety system as one that combines knowledge in the areas of psychology and sociology joined with engineering and education to produce the best possible outcomes in terms of human survivability in an emergency. FESHE Non-Core Course.

Prerequisite: Instructor approval.

**FT 403 Disaster Planning and Control 3 (3,0,0,0)**

This course examines concepts and principles of community risk assessment, planning, and response to fires and natural and human-caused disasters, including National Incident Management System--Incident Command Systems (NIMS ICS), mutual aid and automatic response, training and preparedness, communications, civil disturbances, terrorist threats/incidents, hazardous materials planning, mass casualty incidents, earthquake preparedness, and disaster mitigation and recovery. FESHE Non-Core Course.

Prerequisite: Instructor approval.

**FT 404 Analytical Approaches to Public Fire Protection 3 (3,0,0,0)**

This course examines the tools and techniques of rational decision making in fire and emergency services agencies, including data collection, statistics, probability, decision analysis, utility modeling, resource allocation, and cost-benefit analysis. FESHE Non-Core Course.

Prerequisite: Instructor approval.

**FT 405 Community Risk Reduction for Fire and Emergency Services 3 (3,0,0,0)**

This course provides a theoretical framework for the understanding of the ethical, sociological, organizational, political, and legal components of community risk reduction, and a methodology for the development of a comprehensive community risk reduction plan. FESHE Core Course.

Prerequisite: Instructor approval.





**FT 406 Applications of Fire Research 3 (3,0,0,0)**

This course examines the basic principles of research and methodology for analyzing current fire-related research. The course also provides a framework for conducting and evaluating independent research in the following areas: fire dynamics, fire test standards and codes, fire safety, fire modeling, structural fire safety, life-safety, firefighter health and safety, automatic detection and suppression, transportation fire hazards, risk analysis and loss control, fire service applied research and new trends in fire-related research. FESHE Core Course.

Prerequisite: Instructor approval.

**Casino Management****GAM 103 Casino Cage Operations 3 (3,0,0,0)**

An introduction to casino cage and credit operational standards, casino cage design, bankroll accountability, cage cashier operational procedures, fill and credit standards, casino credit instruments, central credit, soft count operational procedures, check cashing, casino accounting and auditing, Title 31 compliance, and casino cage managerial techniques.

**GAM 106 Casino Floor Supervision 3 (3,0,0,0)**

Basic casino managerial techniques with an emphasis on the protection of casino games, staffing, labor/management relations, floor, pit, and shift supervision, minimum internal control standards, player ratings, currency transaction reporting, credit standards, table games accounting, and table games mathematics.

Prerequisite: MATH 104B or MATH 124 or above; with a grade of C or higher.

**GAM 108 Slots Management I 3 (3,0,0,0)**

Basic slots management techniques with an emphasis on the laws and regulations that affect slot operations, slot machine components, classifications, and functionality, current and future technology trends, consumer behavior and slot machine psychology, game selection methodologies, slot floor layout considerations, slot mathematics, slot financial reporting and analysis and human resources and customer service issues.

**GAM 109 Slots Management II 3 (3,0,0,0)**

An in-depth analytical approach to slots management. Slot performance indicators are addressed including financial analysis, incremental contribution and measurement, slot statistics, game match and PAR sheet elements, performance metrics, analysis, and evaluation, slot location effects, and player analysis.

**GAM 119 Blackjack Dealing 3 (3,0,0,0)**

Fundamentals of dealing Blackjack with an emphasis on card totaling, chip handling, shuffling, multiple deck delivery, payoffs odds, various play options, accuracy and game speed. Novelty game dealing procedures are introduced including Let-it-Ride Poker, Three Card Poker, Crazy 4 Poker, Ultimate Texas Hold 'Em Poker, Pai Gow Poker, and Casino War. Special attention given to the managerial aspects of Blackjack.

**GAM 121 Craps Dealing 3 (3,0,0,0)**

Fundamentals of dealing Craps with an emphasis on accurate and quick mental multiplication, base and stick procedures, chip handling, and take and pay sequencing. Various bets including pass line, don't pass, field, big 6, big 8, come, don't come, true odds, place, buy, lay, and propositions are introduced. Special attention given to managerial aspects of Craps.

**GAM 122 Roulette Dealing 3 (3,0,0,0)**

Fundamentals of dealing Roulette with an emphasis on accurate and quick mental computations, chip handling techniques, spinning the ball and wheel, stack pushing techniques, outside betting procedures and payoffs, inside betting procedures and payoffs, complex payoffs, table limits, pattern recognition, chip values, and conversions. Special attention given to the managerial aspects of Roulette.

**GAM 123 Baccarat Dealing 3 (3,0,0,0)**

Fundamentals of dealing Baccarat with an emphasis on chip handling techniques, the third card rule, stick calls, banker bets, player bets, tie bets, commissions, hand delivery techniques, rim credit, call bets, player shoe control, and high-limit customer relations. Mini-Baccarat, Midi-Baccarat, and Big Baccarat styles are addressed. Special attention given to the managerial aspects of Baccarat.

**GAM 124 Poker Dealing 3 (3,0,0,0)**

Fundamentals of dealing Poker with an emphasis on accurate and quick mental computations, card handling, the rake, side pots, brushing, shilling, proposition players, procedures, game speed and the various forms of Poker. Special attention given to the managerial aspects of Poker.

**GAM 126 Pai Gow Tiles Dealing 3 (3,0,0,0)**

Fundamentals of dealing Pai Gow Tiles with an emphasis on tile rankings, house ways, exceptions, tile handling techniques, player banking procedures, various tile deliveries, commissions, mental computations, accuracy, game speed and the importance of customer relations. Special attention given to the managerial aspects of Pai Gow Tiles.

**GAM 131 Race and Sports Book Management 3 (3,0,0,0)**

This course prepares students in the specific techniques and methods of the daily operations of Nevada race and sports books. Students will be made aware of supervision and managerial responsibilities of book operations. Topics include operating budgets, marketing, state regulations and bookmaking theory.

**GAM 204 Introduction to Casino Marketing 3 (3,0,0,0)**

An overview of casino marketing and how the marketing function impacts the casino organization. Topics include casino promotions, database marketing techniques, dead chip programs, discounting, casino hosting, credit procedures, marketing policies and procedures, amenities, and the casino marketing plan.

Prerequisite: MATH 104B or MATH 124 or above; with a grade of C or higher.



**GAM 206 Casino Surveillance 3 (3,0,0,0)**

All aspects of modern casino surveillance including an overview of surveillance operations, reporting procedures, internal theft, procedure violations, cheating and advantage play, basic strategy, biometric technologies, evidence, civil liabilities, detection and prevention techniques, surveillance equipment, surveillance management, and gaming control board requirements.

**GAM 207 Table Games Management 3 (3,0,0,0)**

Advanced table games management techniques with an emphasis on game productivity, gaming mathematics, table games marketing and promotions, advanced game protection strategies, customer service, table games human capital management, and an in-depth analysis of table games profitability factors.

**GAM 208 Casino Business Strategy 3 (3,0,0,0)**

Fundamentals of the strategic business processes of a casino organization from internal and external perspectives. Topics include casino economics, environmental factors including social, political, legal and competitive forces, consumer behaviors, development of a corporate culture, internal controls, and the future of the gaming industry.

**GAM 210 Casino Customer Service 3 (3,0,0,0)**

Fundamentals of the theory, practice and management of guest service and how it impacts the success of a casino organization with an emphasis on service strategies, staffing issues, and service systems. Topics include the dynamics of guest satisfaction, service quality and value, planning and analysis, the service environment, training and motivation, establishment of a total service culture, guest co-production, communications, service failure recover techniques, delivery systems, and measurement of service results.

**GAM 222 European Roulette Dealing 3 (3,0,0,0)**

Fundamentals of dealing European Roulette with an emphasis on advanced conversions, progressive limits, neighbor bets, section bets, complete bets, overlapping maximums, finale bets, complete piece layouts, station payouts, mental computations, accuracy, game speed, and the importance of customer relations. Special attention given to the managerial aspects of European Roulette. Knowledge of 00 Roulette dealing procedures is strongly recommended for this course.

**GAM 225 Introduction to Gaming Management 3 (3,0,0,0)**

Overview of the casino; topics include the economics of the casino, its interface with the hotel, organizations and terminology.

Prerequisite: ENG 100 or 101 or 113; with a grade of C or higher

**GAM 235 Gaming Laws and Regulations 3 (3,0,0,0)**

A survey of the laws and regulations pertaining to the gaming and hospitality industry. Specific emphasis includes a review and application of Nevada gaming laws, regulations, and statutes, compliance requirements of gaming licensees, licensing and registration requirements, gaming and property crimes, patron disputes, tort laws, and liabilities of the licensee.

**GAM 295 Work Experience in Casino/Gaming 1 (0,0,0,1)**

In addition to the academic requirements, the Department of Hospitality Management requires 200 hours of acceptable employment in the hospitality industry. This work experience will be measured qualitatively as well as quantitatively. The work experience requirement should be met during the school year or in summers. Students who plan to transfer to UNLV will be able to transfer a maximum of 500 hours of employment toward UNLV's 1000-hour employment requirement. International students must go to the office of International Student Services to verify employment eligibility and obtain authorization. This course can be repeated up to a maximum of four credits. Grade will be given upon verification of employment.

**Geography****GEOG 103 Physical Geography 3 (3,0,0,0)**

Physical geography examines the spatial relationships between humans and the environment. A comprehensive and integrating science, physical geography allows the integration of earth systems such as weather, land formations, and earth patterns. Continuous integration of maps, atlases, internet and geographic information system technology.

**GEOG 104 Physical Geography Laboratory 1 (0,3,0,0)**

Course provides an opportunity to apply concepts in physical geography, including map interpretation, computer GIS, meteorological processes, development of landforms and an understanding of the dynamics of the earth.

Prerequisite: GEOG 103, which may be taken concurrently.

**GEOG 106 Introduction to Cultural Geography 3 (3,0,0,0)**

An analysis of the cultural regions of the world, physical settings, peoples, settlements, economic activities and historical and political factors.

**GEOG 116 Oceanography 3 (3,0,0,0)**

In this course we will explore our world's oceans and the role of the ocean in the Earth's system. Topics covered will include the flow and transformations of water and energy into and out of the ocean, the physical and chemical properties of seawater, ocean circulation, marine life and its adaptations, interactions between the ocean and the other components of the Earth system, and the human/societal impacts on and in response to Earth's System interactions.

**GEOG 117 Meteorology/Climatology 3 (3,0,0,0)**

Studies the composition, structure, and dynamics of the Earth's atmosphere that influences global weather patterns. Meteorology defines weather concepts that provide the basis for forecasting, weather analysis and understanding atmospheric phenomena such as hurricanes, tornadoes and extreme weather. Discussion on human impact of the atmosphere, ozone depletion, greenhouse effect and air pollution.



**GEOG 299 Selected Topics in Physical Geography 1-6 (0,3-18,0,0)**

Covers selected topics of interest to students in physical geography. Prerequisite: GEOG 101 or Instructor approval.

## Geology

**GEOL 100 Earthquakes, Volcanoes and Natural Disasters 3 (3,0,0,0)**

Causes of natural disasters and their impact on people and property. Focuses on geological hazards such as earthquakes, volcanic eruptions, landslides, and floods.

**GEOL 101 Geology: Exploring Planet Earth 4 (3,3,0,0)**

Fundamentals of geology including mineral and rock origins through various earth processes. Laboratories include rock identification and interpretation of topographic and geologic maps. Required weekend field trips.

**GEOL 102 Earth and Life Through Time 4 (3,3,0,0)**

The history of Earth through geological time including methods used to recognize fossils and their significance. Laboratories involve paleontology methods, maps and fossil studies. Required weekend field trips.

Prerequisite: GEOL 101 or equivalent.

**GEOL 103 Physical Geology Laboratory 1 (0,1,0,0)**

Designed to introduce basic techniques in identification of minerals and rocks, and in the reading and interpretation of topographic and geologic maps. Includes some field exercises.

Prerequisite or Corequisite: GEOL 101.

**GEOL 105 Introduction to Geology of National Parks 3 (3,3,0,0)**

Geology of selected national parks and monuments in North America with emphasis on surface processes including the causes and effects of Pleistocene glaciation and major tectonic events that have shaped the topography of the United States and Canada.

**GEOL 299 Special Topics in Geology 1-5 (0,3-15,0,0)**

Covers selected topics of interest to students in the geological sciences.

Prerequisite: GEOL 101 or Instructor approval.

## German

**GER 101B Conversational German I 3 (3,0,0,0)**

A course emphasizing spoken communication. Speaking, listening, reading and writing skills explored. German culture also emphasized.

**GER 102B Conversational German II 3 (3,0,0,0)**

A course emphasizing a continuation of the skills acquired in GER 101B. Increased fluency and further vocabulary development stressed.

**GER 107 German for Hotel, Restaurant and Tourism I 3 (3,0,0,0)**

Students with no prior knowledge of German who work in hotels, restaurants, or tourist settings learn to communicate effectively with their German-speaking clientele.

**GER 111 First Year German I 4 (4,0,0,0)**

The development of language skills in listening, speaking, reading, and writing. Emphasis is placed on communication in all four language acquisition skills.

**GER 112 First Year German II 4 (4,0,0,0)**

The further development of language skills in listening, speaking, reading, and writing. Emphasis is placed on more sophisticated communication in all four language acquisition skills.

Prerequisite: GER 111 or equivalent.

**GER 207 German for Hotel, Restaurant and Tourism II 2 (2,0,0,0)**

Students with previous knowledge of German in the area of hotel, restaurant and tourism increase their communication skills in their respective employment fields.

Prerequisite: GER 107.

**GER 211 Second Year German I 3 (3,0,0,0)**

Continuation of German language skills and intensive review of grammatical structures, listening, speaking, reading and writing skills through an introduction to German literary readings.

Prerequisite: GER 112 or equivalent.

**GER 212 Second Year German II 3 (3,0,0,0)**

Further amelioration and perfection of grammatical structures, listening, speaking, reading and writing skills through selected German literary readings.

Prerequisite: GER 211 or equivalent.

**GER 232 German Resistance to the Nazis and Hitler 3 (3,0,0,0)**

This course explores the various forms of resistance (religious, communist, union, socialist, military, and political) to National Socialism and Hitler during the Third Reich (1933-1945).



## Geographic Information Systems

### **GIS 109 Introduction to Geographic Information Systems 3 (3,0,0,0)**

This class serves as an introduction into Geographic Information Systems (GIS). This course covers the basic concepts of a GIS. Principles of cartography and spatial analysis will also be covered. The intent of this class is to prepare the student for advanced training using specific GIS software packages.

Prerequisite: IS 100B or 101.

## Global Studies

### **GLO 101 Introduction to Global Studies 3 (3,0,0,0)**

This course explores globalization and analyzes issues with global implications through a myriad of academic and theoretical frameworks.

### **GLO 222 Terrorism and Political Violence 3 (3,0,0,0)**

This interdisciplinary course focuses on the motivation for terrorism and political violence. It addresses the question, "What makes an otherwise ordinary person deliberately attack unarmed civilians who have personally done the perpetrator no wrong and are in no position to redress the perpetrator's grievances?" (Same as PSC 222).

### **GLO 295 Topical Issues In Global Studies 1-3 (1-3,0,0,0)**

This course explores an issue of current interest in global studies. The topic is chosen by the instructor. Can be repeated for up to 6 credits with Department Chair approval.

### **GLO 299 Capstone in Global Studies 3 (0,0,0,3)**

The capstone in global studies involves students conducting an individual research project designed in cooperation with the course instructor and focused on a global issue.

## Graphic Technology

### **GRC 101 Introduction to Graphic Communications 3 (2,2,0,0)**

Broad-based foundation of fundamental theories, issues, concepts, terminologies and methodologies used for creative/design projects in the graphic communications and digital media industries. Entry course for students pursuing print, web, and/or multimedia careers.

### **GRC 103 Introduction to Computer Graphics 3 (2,2,0,0)**

Hands-on approach to fundamental concepts, terminology, technology, and techniques for creating and editing basic bitmap and vector graphics, basic page assembly using industry-standard software and hardware.

### **GRC 104 Layout and Typography 3 (2,2,0,0)**

Introduction to typography and digital page layout. Emphasis on typographical theory, terminology of traditional and digital processes, fundamentals of typographic design and layout, and design for publications and collateral.

### **GRC 107 Introduction to Visual Design 3 (2,2,0,0)**

An introductory course in the application and appreciation of the basic principles and elements of design, including form, shape, value, space, color and composition.

### **GRC 110 Drawing and Illustration 2-3 (1-2,2,0,0)**

Introductory class in developing techniques for visualizing and drawing images with an emphasis on the 2D drawing process using a variety of traditional media and techniques. Drawings are placed into digital design programs to create finished illustrations.

### **GRC 119 Digital Media 3 (2,2,0,0)**

Introduction to the basic concepts of multimedia production using industry standard software. Topics include storyboarding, working with images, audio, video, motion graphics, animation, and outputting to various formats, for multiple uses, using different production processes and workflows.

### **GRC 140 Print Production with InDesign 3 (2,2,0,0)**

Mastering the industry-standard page layout application InDesign to produce single and multiple-page documents for print reproduction. Emphasis on the complete print production workflow using Adobe software to prepare and manage assets and to plan, design, and assemble layouts.

Prerequisite: GRC 101 and 103 and 104.

### **GRC 156B Design with Illustrator 3 (2,2,0,0)**

Thorough exploration of a bézier-curve based application as a professional illustration and design tool. Hands-on projects using Adobe Illustrator.

Prerequisite: GRC 103.

### **GRC 158 Cartooning 3 (2,2,0,0)**

Cartooning characters, newspaper comics, editorials, caricatures, and mascots denoting humorous people and situations.

### **GRC 165B Digital Painting 3 (2,2,0,0)**

The design and development of digital paintings for artistic expression and places of business. Working methods are examined through class demonstrations, discussions, readings, and projects using a variety of digital painting mediums and current technologies as tools.

Prerequisite: GRC 103.



**GRC 175B Web Design I 3 (2,2,0,0)**

Designing and developing websites using HTML, CSS, and software production tools. Emphasis on the design, usability, and features of website development and production processes.

Prerequisite: GRC 103.

**GRC 179 Multimedia Design and Production I 3 (2,2,0,0)**

Overview of Multimedia design and development. Emphasis on how to design real world interactive projects that combine text, graphics, animation, audio, video, and more. Hands-on projects using popular multimedia authoring software for publishing to CD, DVD, and the Web.

Prerequisite: GRC 119.

**GRC 183B Design with Photoshop 3 (2,2,0,0)**

Thorough exploration of continuous tone images and bitmap graphics using Adobe Photoshop. Hands-on projects working with digital photographs, image correction, manipulation, compositing, scanning and illustrative design. Explores the tools and features of the industry standard application.

Prerequisite: GRC 103.

**GRC 185 Computer Animation I 3 (2,2,0,0)**

Beginning 3D animation for multimedia, including modeling, lighting, rendering, and project management. Emphasis on creating content for multimedia, importing 3D files into common authoring programs and publishing to the Web.

Prerequisite: GRC 119.

**GRC 188 Web Animation I 3 (2,2,0,0)**

Creating and publishing animations for the web using industry standard software. Students create multimedia content incorporating graphics, animations, audio, and video.

**GRC 205 History of Design 3 (2,2,0,0)**

An introduction to the evolution of design with emphasis on acquiring knowledge of the basic visual and conceptual skills necessary for understanding the relationship among design, its audience, contexts, and technology.

Prerequisite: GRC 101 and 103 and 104 and 107.

**GRC 207 Intermediate Design 3 (2,2,0,0)**

Basic design concepts, principles, and methodology for effective visual communications in print and multimedia. Class projects involve using the computer exclusively as the tool for preparing design materials and/or as the final medium.

Prerequisite: GRC 104 and 107 and 119 and 140 and 156 and 183.

**GRC 256B Advanced Design with Illustrator 3 (2,2,0,0)**

Advanced digital illustration techniques with emphasis on special projects and graphic solutions using Adobe Illustrator. Students learn techniques that enable and support the application of art and design theories, visual storytelling, the semiotics of visual representations, and other approaches to practice.

Prerequisite: GRC 156B.

**GRC 275B Web Design II 3 (2,2,0,0)**

Intermediate to advanced techniques for designing and developing websites using HTML and CSS. Continued study of design and usability to produce real world projects. Emphasis on site production process, project management, interactive CSS techniques, search engine optimization, and more.

Prerequisite: GRC 175B.

**GRC 276B Web Design III 3 (2,2,0,0)**

Designing and developing interactive websites using advanced HTML, CSS, and JavaScript. Advanced technologies and methodologies will be covered. Emphasis on the design, usability, and features of website development and production processes.

Prerequisite: GRC 275B.

**GRC 278B Advanced Design and Production 3 (2,2,0,0)**

Apply visual communication solutions to business communications needs for real client project demands and deadlines, demonstrating advanced design theory, presentation, file preparation, and industry-standard design and print production workflow skills.

Prerequisite: GRC 140 and 156B and 183B and 207.

**GRC 286B Digital Video Post-Production 3 (2,2,0,0)**

Creating and publishing motion graphics using popular video post production software. Students learn to author motion graphics combining graphics, text, animation, audio, video and more. Students create and publish highly visual programs usable with digital video, common authoring programs, and the web.

Prerequisite: VID 115B.

**GRC 288B Web Animation II 3 (2,2,0,0)**

Intermediate and advanced techniques for creating animations for the web using industry standard software. Students create multimedia content incorporating graphics, animations, interactivity, audio, and video.

Prerequisite: GRC 188.



**GRC 289B Special Projects in Graphic Communications 1-3 (0,0,0,5-15)**

Students work on individual design and communications projects under the direction of a faculty advisor; projects, provided by real world businesses and organizations, relate to the student's selected major emphasis.

Prerequisite: 21 GRC course credits.

**GRC 290 Internship in Graphic Communications 1-8 (0,0,0,5-40)**

Supervised work experience within a selected graphic communications firm, dependent upon student's major emphasis. Designed by company official and faculty advisor to apply knowledge to on-the-job situation. Available to students entering their last semester of instruction for degree. Contact department for applications, screening and required skills evaluation.

**GRC 294B Portfolio Prep 3 (2,2,0,0)**

Development of a customized, professional portfolio for prospective clients and employers. Students will create a résumé, corporate identity, stationery system, leave behind package, and online and offline brand presence. Emphasis on basic marketing tactics and developing, designing and producing a custom portfolio that will showcase strengths and skills.

Prerequisite: GRC 101 and 103 and 104 and 107 and 119 and 207.

## Greek

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**GRE 111 First Year Modern Greek I 4 (4,0,0,0)**

A course emphasizing the development of language skills in listening, speaking, reading and writing. Emphasis is placed on communication in all four language skills.

## Health and Human Performance

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**HHP 110B Introduction to the Health Professions 3 (3,0,0,0)**

This course is designed to provide the student with a survey of the various health careers and subject matter involving the health field today.

**HHP 123B Introduction to the Human Body 4 (4,0,0,0)**

Introductory study of the structural and functional characteristics of the human body and their relationships to health and disease.

**HHP 124B Introduction to the Human Body Computer Lab 1 (0,2,0,0)**

A computer-based laboratory course designed to complement instruction in HHP 123B. Students required to take the lab must do so concurrently with HHP 123B.

**HHP 150 Living Healthy and Well 3 (3,0,0,0)**

This course is a study of healthy living principles as they apply to adult life. Emphasis is placed on the recognition of and prevention of individual decisions that affect one's overall health.

**HHP 190 Exercise, Nutrition and Weight Control 3 (3,0,0,0)**

A basic overview of principles of fitness as they apply to exercise and good nutrition. Emphasis will be placed on the practical application of sound exercise and eating habits and the development of a personalized fitness program. This course is designed for the average person who wishes to gain the knowledge necessary for improved health.

**HHP 201B Stress Management 2 (2,0,0,0)**

An overview of stress, its manifestations, and methods of managing it. Particular emphasis will be placed on the role of exercise in controlling stress and the development of a balanced life-style.

**HHP 203B Sports Nutrition 3 (3,0,0,0)**

A course designed for the fitness professional that explores the link between nutrition, energy metabolism, and exercise. Optimizing exercise performance and making prudent decisions in the nutrition marketplace will be discussed.

**HHP 206B Prevention and Care of Exercise Injuries 2 (2,0,0,0)**

Overview of safety and injury management for the fitness professional. Includes injury prevention, safe use of exercise equipment, contraindicated exercise, facility safety requirements and liability issues.

**HHP 213 Healthy Aging 4 (4,0,0,0)**

A course designed to address the factors affecting the health and fitness status of an individual as that person progresses from early to late adulthood. Recognition and prevention of health and personal fitness problems will be emphasized.

**HHP 227B Topics in Alternative Medicine 1 (1,0,0,0)**

An examination of modern definitions of health; a comparison of traditional and alternative health care; an overview of alternative choices; trends in health care. May be repeated up to a maximum of three credits.

**HHP 291 First Aid 2 (2,0,0,0)**

Study of various emergency medical problems and their management by application of basic first aid and cardiopulmonary resuscitation.



## History

**HIST 101 U.S. History to 1877 3 (3,0,0,0)**

A survey of United States political, social, economic, diplomatic, and cultural development from colonial times to 1877. Satisfies the United States Constitution requirement. HIST 101 and HIST 102 need not be taken in sequence; either class may be taken alone.

Prerequisite: ENG 100 or 101 or 101H or 113 with a grade of C or better.

**HIST 101H U.S. History to 1877 - Honors 3 (3,0,0,0)**

An Honors-level survey of United States political, social, economic, diplomatic, and cultural development from colonial times to 1877. This course emphasizes interactive and independent learning through readings, discussion, and writing. Satisfies the United States Constitution requirement. HIST 101H and HIST 102H need not be taken in sequence; either class may be taken alone.

Prerequisite: ENG 100 or 101 or 101H or 113; and Admission to the Honors program.

**HIST 102 U.S. History Since 1877 3 (3,0,0,0)**

A survey of United States political, social, economic, diplomatic, and cultural development from 1877 to present. Satisfies the Nevada Constitution requirement. HIST 101 and HIST 102 need not be taken in sequence; either class may be taken alone.

Prerequisite: ENG 100 or 101 or 101H or 113 with a grade of C or better.

**HIST 102H U.S. History Since 1877 - Honors 3 (3,0,0,0)**

An Honors-level survey of United States political, social, economic, diplomatic, and cultural development from 1877 to present. This course emphasizes interactive and independent learning through readings, discussion, and writing. Satisfies the Nevada Constitution requirement. HIST 101H and HIST 102H need not be taken in sequence; either class may be taken alone.

Prerequisite: ENG 100 or 101 or 101H or 113; and Admission to the Honors program.

**HIST 105 European Civilization to 1648 3 (3,0,0,0)**

A survey of the development of Western civilization from the dawn of history to 1648.

**HIST 106 European Civilization Since 1648 3 (3,0,0,0)**

A survey of the development of Western civilization from 1648 to the present.

**HIST 107 Women in American History 3 (3,0,0,0)**

A study of the role of women in the creation of America. Includes a look at legal status, life style and the unique status of minority women.

**HIST 111 Survey of U.S. Constitutional History 3 (3,0,0,0)**

Origins and history of the United States Constitution; surveys the development of American judicial interpretations and institutions. Satisfies the U.S. Constitutions requirement.

**HIST 150 Introduction to Chinese Civilization 3 (3,0,0,0)**

An introductory survey of the growth and development of Chinese civilization with an emphasis on philosophy, literature, society and political development from 2200 B.C. to the present.

**HIST 151 Introduction to Japanese Civilization 3 (3,0,0,0)**

An introductory survey of the growth and development of Japanese civilization with an emphasis on philosophy, literature, society and political development from 8000 B.C. to the present.

**HIST 202 American Military History 3 (3,0,0,0)**

U.S. military history from the colonial period onward emphasizing war strategies, military thought, and policy in the armed forces and American society.

**HIST 208 World History I 3 (3,0,0,0)**

A survey of the societies and cultures of Asia, Africa, the Middle East, Europe, the Americas, and Oceania to 1600.

**HIST 209 World History II 3 (3,0,0,0)**

A review of the principal developments in world history since 1600, including scientific and technological revolutions, social revolutions, nationalism, immigration, colonialism, world wars, decolonization, modernization, democracy, and dictatorships.

**HIST 210 Southwest Heritage 3 (3,0,0,0)**

A study of the American Southwest and its cultures placed in historical perspective.

**HIST 217 Nevada History 3 (3,0,0,0)**

A study of Nevada from early exploration to the present. Satisfies the Nevada Constitution requirement.

Prerequisite: ENG 100 or 101 or 101H or 113 with a grade of C or better.

**HIST 217H Nevada History - Honors 3 (3,0,0,0)**

An Honors-level survey of Nevada from early exploration to the present. This course emphasizes interactive and independent learning through readings, discussion, and writing. Satisfies the Nevada Constitution requirement.

Prerequisite: ENG 100 or 101 or 101H or 113; and Admission to the Honors program.

**HIST 220 History of Las Vegas 3 (3,0,0,0)**

An introduction to Las Vegas from prehistoric times to the present, emphasizing recent developments.



**HIST 227 Introduction to Latin American History and Culture I 3 (3,0,0,0)**

Survey of the development of Spain and Portugal as colonizing powers, the discovery and conquest of America, and the growth of political, social, and economic institutions during the Colonial Period.

**HIST 228 Introduction to Latin American History and Culture II 3 (3,0,0,0)**

Survey of Latin American independence movements, the major Latin American republics, and Latin American indigenous history and culture

**HIST 247 Introduction to the History of Mexico 3 (3,0,0,0)**

An introduction to pre-Columbian Mexico, Colonial New Spain and Mexican National History to the present.

**HIST 250 Introduction to the Study of History 3 (3,0,0,0)**

Introduction to the research methods commonly used by historians. Practical application of these methods to everyday life is emphasized.

**HIST 251 Introduction to Historical Methods 3 (3,0,0,0)**

Introduction to the basic concepts and techniques of historical investigation and writing. This course is writing intensive and is intended for students majoring in history or related disciplines.

Prerequisite: Department Chair approval.

**HIST 260 Introduction to Native American History 3 (3,0,0,0)**

An examination of significant events and trends in Native American life. The course will focus on the contributions made by American Indians to the development of our history and contemporary society.

**HIST 275 The Wild West - Myth and Reality 3 (3,0,0,0)**

Designed to acquaint the student with the history of the American West, the course will typically examine and compare the often romanticized themes of early novels and Hollywood films with the harsh reality of frontier life. The topics that may be examined include the Spanish Southwest, the fur trapping mountain men, the Indians and the army, outlaws, the mining men, cattle, timber, and farming frontiers, and the introduction of capitalism and large scale industrialization.

**HIST 285 History of Witchcraft 3 (3,0,0,0)**

The study of the figure of the witch from ancient times to the present, and the historical, religious and social context from which it emerged. The course includes Paleolithic and Neolithic religion, witches in ancient cultures, formulation of the Christian witch concept, the witch hunt in Early Modern Europe and in the British North American colonies, and modern Neo-Pagan witchcraft. (Same as WMST 285.)

**HIST 286 Goddess Traditions 3 (3,0,0,0)**

A study of goddess images in a variety of cultures from prehistory to the modern age including the history, values, beliefs, practices and ethics systems associated with goddess imagery. (Same as WMST 286.)

**HIST 293 Introduction to African-American History I 3 (3,0,0,0)**

Survey of the history of African Americans from their origins on the west coast of Africa to the present.

**HIST 295 Special Topics in History 1-3 (1-3,0,0,0)**

Study of a selected issue or topic of significance in history. The particular topic will vary, however, the intent of the study will be to develop an awareness of and appreciation for the complex forces which have shaped the modern world. Material for the study will be drawn from a wide variety of sources and may be interdisciplinary in nature. The course may be repeated up to a total of six credits, with the permission of the Department Chair.

Prerequisite: Department Chair approval.

**HIST 299 Internship 3 (2,0,0,6)**

Supervised work experience with selected community businesses. Complete 30 credit hours, minimum 2.5 GPA.

Prerequisite: Department Chair approval; and 15 HIST credits including HIST 101 and 102 and 217.

**Health Information Technology**

**HIT 102B Coding for Medical Offices 2 (1,3,0,0)**

Introduction to ICD and CPT coding as they relate to the medical office setting.

Corequisite: HIT 118B.

**HIT 103B Customer Service Skills in a Healthcare Setting 1 (1,0,0,0)**

Develop and practice customer service skills for a healthcare setting.

**HIT 105B Introduction to Health Information Management 3 (2,3,0,0)**

An introduction to the organization, cultural issues, ethics, health-care policies, external regulations and standards, security and integrity of health data, and interrelationships within the healthcare delivery system.





**HIT 106B Healthcare Reimbursement 2 (2,0,0,0)**

An introduction to the complex financial and reimbursement systems of the healthcare environment. This course includes the basics of health insurance, publicly funded programs, managed care, the revenue cycle, and legal issues impacting the billing process.

**HIT 107B Patient Registration Practicum 2 (0,0,8,0)**

Provides the student with practical experience in performing patient registration duties. The practicum assignments are eighty (80) hours in a hospital admitting department. Graded Pass/Fail.

Corequisite: HIT 106B.

**HIT 108B Interpersonal Communication Skills in the Healthcare Setting 3 (3,0,0,0)**

Designed for the development and practice of a set of interpersonal and human relation skills as needed among health care providers.

**HIT 117B Medical Terminology I 1 (1,0,0,0)**

Study of word derivations and formation with emphasis upon understanding common usage in the field of health care.

**HIT 118B Language of Medicine 3 (3,0,0,0)**

Analysis of medical language by body system; and creating, defining, and applying common medical terms related to anatomy, disease processes, diagnostic procedures, laboratory tests, abbreviations, and therapeutic procedures.

**HIT 119B Introduction to Pharmacology and Laboratory Tests 2 (2,0,0,0)**

Advanced application of medical language specific to clinical specialties including pharmacology, laboratory, and diagnostic testing. Emphasizes understanding of the action of drugs, including the absorption, distribution, metabolism and excretion of drugs by the body, and mathematical calculation to solve medication dosage problems, and convert between different systems of measurement.

Prerequisite: HIT 118B.

**HIT 120B Medical Transcription I 4 (2,6,0,0)**

Basic medical transcription skills.

Corequisites: COT 200; and ENG 100 or 101 or 113; and HIT 118B. Please note - Student must earn a C or better in all corequisite courses.

**HIT 122B Medical Transcription II 5 (1,6,6,0)**

Advanced medical transcription skills. Graded Pass/Fail.

Prerequisite: Instructor approval.

**HIT 130B Procedural Terminology 1 (1,0,0,0)**

Basic study of medical terminology used in the procedural coding classification system. Analysis of standardized vocabulary of surgical concepts, body part terms, operative approaches, devices, and other qualifiers from which codes are built.

Corequisite: HIT 118B.

**HIT 165B Pathophysiology 4 (4,0,0,0)**

Introduction to the disease processes affecting the human body by an integrated approach to specific disease entities, including the study of causes, diagnoses, and treatment of disease.

Prerequisite: BIOL 223 or HHP 123B.

**HIT 170B Healthcare Computer Applications 3 (2,3,0,0)**

This course develops students' knowledge and skills in hardware and software components of computers for healthcare applications. The students will also explore methods of controlling the accuracy and security of data in computer systems, record linkage and data sharing concepts, and information systems in healthcare.

Prerequisite: COT 127B with a grade of C or better.

**HIT 184B Introduction to ICD Coding 2 (1,3,0,0)**

Principles and application of the ICD coding system with emphasis on diagnosis coding, including analysis of the organization and classification of all chapters, evaluation of current coding and documentation guidelines, and introduction to physician queries.

Prerequisite: HHP 123B and 124B; and HIT 118B and 165B all with a grade of C or higher.

**HIT 185B Introduction to CPT Coding 3 (2,3,0,0)**

Principles and application of procedural coding systems using CPT and HCPCS Level II including basic introduction to APCs, the NCCI, Medicare's LCDs and NCDs, encoders, and automated coding concepts.

Prerequisite: HHP 123B and 124B; and HIT 118B and 165B all with a grade of C or higher.

**HIT 186B Advanced Outpatient Coding 2 (1,3,0,0)**

Principles and application of coding systems utilized for outpatient healthcare facilities and physician coding using ICD, CPT, and HCPCS Level II. Emphasizes use of encoders; assigning codes to complex case studies; auditing more complex codes including evaluation and management, radiology, laboratory, and surgical; and introducing the student to APC code assignment.

Prerequisite: HIT 119B and 165B and 184B and 185B all with a grade of C or higher.



**HIT 187B Introduction to ICD-PCS Coding 2 (1,3,0,0)**

Principles and application of the ICD procedural coding system (PCS), including analysis of the seven character structure, the organization and classification within all sections, evaluation of coding guidelines, documentation guidelines, and assigning ICD procedural codes.

Prerequisite: HHP 123B and 124B and 130B and 165B.

**HIT 201B Advanced Coding Systems 3 (2,3,0,0)**

In depth study and practice assigning valid diagnosis and procedure codes utilizing both code books and encoder/grouper software; compliance and auditing; and review of other classification systems.

Prerequisite: HIT 184B and 185B and 187B.

**HIT 205B Privacy, Legal, and Ethical Issues in Healthcare 2 (1,3,0,0)**

In-depth study of patient privacy and confidentiality of health information. Review of legal responsibilities of healthcare workers and facilities with emphasis on HIM. Health professional ethics issues are discussed and evaluated.

**HIT 206B Professional Practice Experience I 3 (0,0,10,0)**

Practical experience in a healthcare setting performing and observing health information management departmental duties. Graded Pass/Fail.

Corequisite: HIT 205B.

**HIT 207B Health Information Management 2 (1,3,0,0)**

Study of organizational systems with emphasis on strategic management; and human, financial, and physical resources as related to health information management.

Prerequisite: Acceptance into HIT Program.

**HIT 208B Professional Practice Experience II 2 (0,0,6,0)**

Practical experience in developing HIM departments including departmental policies, procedures, job descriptions, budgets, and functional spaces according to regulation and health information needs. Performed within a team environment using project management resources. Graded Pass/Fail.

Prerequisite: HIT 206B.

**HIT 210B Coding Practice Experience 3 (0,0,12,0)**

Practical coding experience in a hospital, physician's office, clinic, other healthcare setting, or simulated environment including directed projects common to a clinical coding specialist on the job. Graded Pass/Fail.

Prerequisite: HIT 201B and 186B both with a grade of C or higher.

**HIT 240B Healthcare Statistics and Research 1 (1,0,0,0)**

Computation and interpretation of healthcare statistics. Introduction to knowledge-based techniques and guidelines regarding research and IRB processes.

Prerequisite: Instructor approval.

**HIT 245B Healthcare Quality Management 2 (1,3,0,0)**

Methodologies for conducting quality improvement activities including creating collection processes, analyzing trends, and presenting graphics and data to guide strategic and organizational planning.

Prerequisite: Instructor approval.

**HIT 290B RHIT Exam Prep 2 (2,0,0,0)**

This course is a review of HIM topics covered in the HIT Program. It is designed to prepare students for the national certification examination. Graded Pass/Fail.

Prerequisite: Instructor approval.

**HIT 291B Coding Exam Prep 2 (2,0,0,0)**

This course is a review of coding topics covered in the Medical Coding Program. It is designed to prepare students for the American Health Information Management Association's (AHIMA) national coding certification examination.

Prerequisite: Instructor approval.

**HIT 299B Selected Topics in Health Information Technology 2 (0,0,0,2)**

Selected study in topics of interest to students of health information technology. Graded Pass/Fail.

Prerequisite: Instructor approval.

**Hotel Management****HMD 101 Introduction to the Hospitality Industry 3 (3,0,0,0)**

Survey of the history, likely direction, and dynamics of the hospitality industry from the perspective of the global economy, with emphasis on the wide variety of career opportunities.

**HMD 202 Housekeeping Operations 3 (3,0,0,0)**

Application of various systems, procedures, and controls associated with a modern hotel or hospital housekeeping department. Emphasis on management delegation, scheduling, systems, routines, and equipment. Laundry operations and hotel recreation departments also reviewed.

Prerequisite: HMD 101 with a grade of C or higher.



**HMD 203 Front-Office Operations 3 (3,0,0,0)**

Study of front-office procedures from reservations through check-out including the night audit and the property management system and their impacts on other lodging operations. Special emphasis is placed on guest-employee relations.

Prerequisite: HMD 101; and ENG 100 or 101 or 113.

**HMD 226 Industry Computer Applications for Hospitality and Tourism 3 (3,0,0,0)**

Survey of computer applications, issues, and trends in the hospital-ity industry. Emphasis placed on the role of technology in opera-tions and management of technology as a strategy.

Prerequisite: HMD 101.

**HMD 235 Hotel, Restaurant and Gaming Law 3 (3,0,0,0)**

Legal aspects of the innkeeper/guest relationship with particular attention to personal liability, property liability, labor law, crimes, torts, evictions, negligence, administrative agencies and gaming regulations.

**HMD 253 Hospitality Services Management 3 (3,0,0,0)**

Exploration of how services are different from goods, service procedures for various functional areas of hospitality, and how key factors contribute to service quality and guest satisfaction in services.

Prerequisites: HMD 101; and ENG 102 or 114.

**HMD 259 Human Resources Management in the Hospitality Industry 3 (3,0,0,0)**

Recruitment, selection, compensation, training, and performance appraisal of employees and managers in the hospitality industry's culturally diverse work place.

Prerequisite: HMD 101; and ENG 100 or 101 or 113.

**HMD 295 Work Experience in Lodging Operations 1 (0,0,0,1)**

In addition to the academic requirements, the accreditation com-missions for the Department of Hospitality Management require students to work for at least 200 hours in a verified program/degree related position prior to graduation. This work experience will be measured qualitatively as well as quantitatively by the program director and faculty. Work experience can be from a prior position or one worked during your time at CSN. Students who plan to transfer to UNLV can transfer a maximum of 500 hours of employ-ment to meet UNLV's 1,000 hour requirement.

**Human Services****HMS 101B Introduction to Human Services 3 (3,0,0,0)**

An introductory course identifying the multifold programs and ac-tivities of social welfare and helping services and their key role in modern society; observation and reporting techniques emphasized.

**HMS 102B Introduction to Counseling 3 (3,0,0,0)**

Designed to provide an overview of the historical, philosophical and theoretical foundations of counseling. Students will examine the counselor as a person and explore the role of self-awareness in the field of counseling.

**HMS 107B Community Resources in Human Services 3 (3,0,0,0)**

A course designed to acquaint the student with resources available for substance abuse programs.

**HMS 130 Human Sexuality 3 (3,0,0,0)**

Designed to provide each student with the necessary biological, historical, psychological and sociological perspective for person-al positive changes. Provides a forum for discussion on issues of common concern.

**Humanities****HUM 295H Issues in Humanities - Honors 3 (3,0,0,0)**

Cross-disciplinary topics. Repeatable to a maximum of six credits.

Prerequisite: ENG 100 or ENG 101 or ENG 101H or ENG 113 with a grade of C or higher; or Instructor approval; and Admission to the Honors program.

**HUM 298 Phi Theta Kappa Honors Topic 3 (3,0,0,0)**

The Honors Study Topic course is dedicated to the examination and illumination of the Phi Theta Kappa Honors Study Topic – providing ideas for scholastic enrichment. Open for general registra-tion; may be taken twice for credit.

**Interior Design****INTD 105B History of Furniture and Interiors I 3 (3,0,0,0)**

A study of the history of furniture and interiors from antiquity to the nineteenth century.

**INTD 106B History of Furniture and Interiors II 3 (3,0,0,0)**

A study of furniture and interiors from the nineteenth century to the present.

Prerequisite: INTD 105B.



**INTD 216B Textiles 3 (2,2,0,0)**

Consumer orientation to textiles. Serviceability, concepts of durability, care, comfort and aesthetic appearance are used to evaluate textiles alternatives for various end uses.

**INTD 218B Methods and Materials 3 (2,2,0,0)**

A study of interior furnishings, materials, processes and applications.

**INTD 255B Interior Design Studio I 3 (2,2,0,0)**

Application of design concepts of interior spaces. Short exercises precede residential projects.

Prerequisite: INTD 216B.

**INTD 257B Interior Design Studio II 3 (2,2,0,0)**

Advance problem solving in interior design.

Prerequisite: INTD 218B and 255B.

**INTD 258B Business Practices 3 (3,0,0,0)**

This course is an overview of interior design business principles and practices.

Prerequisite: INTD 255B.

**Information Systems****IS 100B Core Computing Competency 0 (0,0,0,0.25)**

This course verifies a student's core computing competencies. Knowledge and skills will be tested in the areas of computing fundamentals, key applications, and the Internet at current collegiate/professional levels. Students must pass all required exams to earn an internationally recognized digital literacy certification to pass the course. Students should have strong knowledge and skills in the specified computing areas. Graded Pass/Fail.

**IS 101 Introduction to Information Systems 3 (3,0,0,0)**

Concepts and applications of Information Systems. Introduction to hardware, software, data, and file concepts. Microcomputer applications software including word processing, spreadsheet, database, Internet, and presentation software.

**IS 115 Introduction to Programming 3 (3,0,0,0)**

This course introduces the student to problem-solving and algorithm development using a modern programming language. Students should have basic computer skills.

Prerequisite: MATH 95 or above with a grade of C or higher; or ET 111B with a grade of C or higher; or a satisfactory ACT/SAT/Placement Test score that places the student in MATH 96 or above.

**IS 389 Advanced Business Systems Development 4 (3,2,0,0)**

Advanced methodology of program design, development, testing, implementation, and documentation. Includes coverage of user requirements definition and translation into design specifications, use of database management systems, system maintenance, and various system development and life cycle methodologies and tools. Students should have programming experience.

Prerequisite: IS 115 with a grade of C or higher; or any high level programming language.

**Italian****ITAL 101B Basics of Italian I 3 (3,0,0,0)**

A basic introduction to the Italian language and culture, this course emphasizes both oral and written communication through the development of listening, speaking, reading, and writing skills.

**ITAL 102B Conversational Italian II 3 (3,0,0,0)**

A course emphasizing a continuation of skills acquired in ITAL 101B. Increased fluency and further vocabulary development stressed.

Prerequisite: ITAL 101B.

**ITAL 111 First Year Italian I 4 (4,0,0,0)**

Designed to give students an introduction to the Italian language and culture, this course emphasizes both oral and written communication through the development of listening, speaking, reading, and writing skills.

**ITAL 112 First Year Italian II 4 (4,0,0,0)**

Designed as a continuation of Italian 111, this course prepares students to use Italian in an increasing variety of contexts by expanding on vocabulary and developing more complex sentence structures, with a focus on intercultural competence.

Prerequisite: ITAL 111 or Department approval.

**ITAL 211 Second Year Italian I 3 (3,0,0,0)**

This course prepares students to use Italian language in an increasing variety of contexts by expanding on vocabulary and sentence structure while developing paragraph-level writing. Further development of intercultural competence.

Prerequisite: ITAL 112 or Department approval.

**ITAL 212 Second Year Italian II 3 (3,0,0,0)**

This course prepares students to use Italian language in an increasing variety of contexts with increasing complexity. Further development of intercultural competence.

Prerequisite: ITAL 211 or Department approval.



**ITAL 221 Italy and Its Culture 3 (3,0,0,0)**

Introduction to Italian Culture and its influence on the World Community: a general examination of Italy's physical, historical, political, and administrative identity. An introduction to and assessment of the contributions of its major achievers in various areas of human endeavor: Art, Religion, Science, etc. A glance at Italy's popular culture as reflected in its films and other documents of contemporary daily life. Taught in English, no knowledge of Italian required.

**Journalism****JOUR 100 Introduction to Journalism and Media Studies 3 (3,0,0,0)**

This required course introduces prospective majors to the pragmatic, performative and presentational aspects of journalism and media studies.

**JOUR 101 Critical Analysis of the Mass Media 3 (3,0,0,0)**

Analysis of the development of newspapers, magazines, motion pictures, radio, and telecommunications. Overview of institutional structure and theoretical perspectives.

**JOUR 102 News Reporting and Writing 3 (3,0,0,0)**

Provides fundamental instruction and pre-professional practice in writing as a basis for upper-division courses in journalism and media studies. Analysis of news content and how news is obtained and written. Discussions and laboratory.

Prerequisite: ENG 100 or 101 or 113.

**JOUR 105 News Production I 3 (3,0,0,0)**

Introduction to news and features gathering, writing and presentation with practical application demonstrated in production of campus print publications, web pages and electronic programming (e.g. podcasts).

**JOUR 121 Radio Production 3 (3,0,0,0)**

A study and practical use of radio broadcast equipment, announcing techniques, programming concepts, functions of a disc jockey (DJ), and researching, writing and producing a newscast.

**JOUR 201 Television Studio Production I 3 (3,0,0,0)**

Study and training in basic television studio production for live or live-to-tape programming. Emphasis on producing and directing with training in various studio, control room, and engineering functions. Students are encouraged to take JOUR 220 either before or while taking this course.

**JOUR 202 Electronic Media Production I 3 (3,0,0,0)**

Lecture and lab for the study of and training in studio and field video production, basic post-production, and resource utilization across electronic platforms.

**JOUR 204 Introduction to Media Production 3 (3,0,0,0)**

Introduction to production tools and computer interfaces; emphasis on visual literacy, imaging, video and audio editing, Internet authoring, and creating multimedia documents.

**JOUR 210 Introduction to Public Relations 3 (3,0,0,0)**

Study of the practice of public relations including media, employee, consumer, community, shareholder, and customer relations. Emphasis is on the history of public relations, its role, and impact on today's society.

**JOUR 212 Principles of Advertising 3 (3,0,0,0)**

Examination of the purpose, function, and role of advertising in society. Emphasis is on the practical application of advertising as part of the marketing mix including customer identification, branding, message development, and media selection.

**JOUR 220 Fundamentals of Applied Media Aesthetics 3 (3,0,0,0)**

Survey of the various fields that use visual imagery for communicative purposes. Graphic design, film, and televisual imagery covered. Emphasis on television and film aesthetics and picture composition.

**JOUR 223 Contemporary Radio 3 (3,0,0,0)**

Examination of the structure, programming, regulation, and problems of radio in today's world and the role the medium plays in informing and entertaining modern listeners.

**JOUR 241 News and the News Media 3 (3,0,0,0)**

Survey of the history, purposes, functions, and effects of journalism.

**JOUR 261 Introduction to IMC 3 (3,0,0,0)**

Examination of the function of advertising and public relations in the media and society. Emphasis on the application of theory and its relationship to the IMC elements; public relations, advertising, promotion, direct marketing, interactive, and their ability to reach customers/publics.

**JOUR 276 Design Principles of Advertising/Publications 3 (3,0,0,0)**

History of design periods and styles. Introduction to five basic types of print advertising: periodicals, direct mail, point of purchase, sales-promotion, and merchandising.

**JOUR 290 Internship in Journalism 1-3 (1-3,0,0,0)**

A course for advanced journalism students that provides credit for professional experience under appropriate supervision. Can be repeated for a total of 6 credits.

Prerequisite: Approval of the station, newspaper, agency or firm where internship will be completed and approval from the Department of Communication Internship Coordinator. (Same as COM 196.)



## Japanese

### **JPN 101B Conversational Japanese I 3 (3,0,0,0)**

A course emphasizing spoken communication. Listening and speaking skills, and recognition of hiragana developed. Basic expressions applied to varieties of conversational contexts introduced.

### **JPN 102B Conversational Japanese II 3 (3,0,0,0)**

A second semester course designed to continue the development of conversational skills. Recognition of katakana scripts also developed.

Prerequisite: JPN 101B.

### **JPN 111 First Year Japanese I 4 (4,0,0,0)**

The development of language skills in listening, speaking, and writing.

### **JPN 112 First Year Japanese II 4 (4,0,0,0)**

A second semester course designed to continue and improve the skills learned in JPN 111.

Prerequisite: JPN 111.

### **JPN 120 Kanji and Japanese Vocabulary I 2 (2,0,0,0)**

Elementary level kanji course designed to teach writing of JPN 111 and JPN 112 vocabulary and bring students to the level of passing Kanji Kentei 10-kyu Exam.

Prerequisite: JPN 111 or Departmental approval.

### **JPN 121 Kanji and Japanese Vocabulary II 2 (2,0,0,0)**

A continuation of Kanji and Japanese Vocabulary I designed to teach kanji at the level of Kanji Kentei 9-kyu Exam and vocabulary that utilizes 240 kanji.

Prerequisite: JPN 120 or Departmental approval.

### **JPN 211 Second Year Japanese I 3 (3,0,0,0)**

Designed to continue the development of language skills in listening, speaking, reading and writing. Contextual studies.

Prerequisite: JPN 112.

### **JPN 212 Second Year Japanese II 3 (3,0,0,0)**

Designed to continue the development of language skills learned in JPN 211.

Prerequisite: JPN 211.

## Korean

### **KOR 101B Conversational Korean I 3 (3,0,0,0)**

A course emphasizing spoken communication. Speaking skills, oral and listening skills, reading and writing skills explored. A vocabulary of Korean-English words developed.

### **KOR 102B Conversational Korean II 3 (3,0,0,0)**

Students will continue to develop speaking, oral and listening skills and vocabulary.

Prerequisite: KOR 101B.

### **KOR 111 First Year Korean I 4 (4,0,0,0)**

The development of language skills in listening, speaking, and writing. Oral emphasis.

### **KOR 112 First Year Korean II 4 (4,0,0,0)**

A second semester course designed to continue and improve the skills learned in KOR 111.

Prerequisite: KOR 111.

### **KOR 211 Second Year Korean I 3 (3,0,0,0)**

Designed to continue the development of language skills in listening, speaking, reading, and writing. Contextual studies.

Prerequisite: KOR 112.

### **KOR 212 Second Year Korean II 3 (3,0,0,0)**

Designed to continue the development of language skills learned in KOR 211.

Prerequisite: KOR 211.

## Latin American Studies

### **LAS 100 Introduction to Latina/o Studies 3 (3,0,0,0)**

An introduction to the field of Latina/o Studies through a multidisciplinary approach to provide students an integrated exploration of the complexities of this dynamic population.

### **LAS 101 Introduction to Latin American Studies 3 (3,0,0,0)**

Interdisciplinary introduction to the culture, history, and political economy of contemporary Latin America; examines topics such as colonialism and independence, values and social structures, political institutions, and economic relations in the region; presents an overview of the history and conditions of U.S. Latinos.

### **LAS 210 Hispanic Groups in the United States 3 (3,0,0,0)**

This course studies the Hispanic populations of the United States, focusing especially on the three largest Hispanic groups: Mexicans, Puerto Ricans, and Cubans. The class analyzes and compares how the different Hispanic groups handle reality, immigration, and the processes involved in adapting to life in the U.S.

### **LAS 223 Spanish Caribbean Culture 3 (3,0,0,0)**

This course examines historical, cultural, and social developments of the Spanish Caribbean from pre-Hispanic times to the present. Topics include history, traditions, ethnicity, literature, arts, religion, politics, music, and food. (Same as SPAN 223.)



**LAS 224 Mexican Culture 3 (3,0,0,0)**

This course focuses on elements that contribute to the formation of the culture and identity of the Mexican nation: history, religion, music, art, food, movies and TV, traditions, celebrations and folklore, social realities, and the relationship with the U.S. Taught in English. (Same as SPAN 224.)

**LAS 299 Capstone Class in Latin American Studies 1 (0,0,0,1)**

As the last course of special program's requirements, it integrates coursework covered in the Latin American and Latina/o Studies AA degree program and independent work involving reading, writing, and research.

Prerequisite: Instructor approval.

### Latin

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**LAT 111 First Year Latin I 4 (4,0,0,0)**

A beginning level Latin course emphasizing the development of reading and writing skills and cultural understanding. Emphasis on basic comprehension and communication.

**LAT 112 First Year Latin II 4 (4,0,0,0)**

A second-semester course of beginning-level Latin emphasizing the development of reading and writing skills and cultural and historical understanding. Emphasis on basic comprehension and communication.

Prerequisite: LAT 111.

### Law

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**LAW 101 Fundamentals of Law I 3 (3,0,0,0)**

Relationship and delineation of the function and responsibility of the legal assistant, the attorney and the client.

Prerequisite: ENG 100 or ENG 101 with a grade of C or better and IS 101.

**LAW 204 Torts 3 (3,0,0,0)**

Students will become familiar with the major torts of negligence, trespass to land, defamation, strict liability, wrongful death and conversion.

Prerequisite: LAW 101.

**LAW 205 Contracts 3 (3,0,0,0)**

Discusses the basic elements of contract law including offer, acceptance, consideration, contractual capacity, legality, defenses to enforcement of contracts, remedies and an introduction to the Uniform Commercial Code. Special emphasis placed on the practical analysis of contracts.

Prerequisite: LAW 101 or Instructor approval.

**LAW 231 Civil Procedure 3 (3,0,0,0)**

This course emphasizes the court system in Nevada focusing on the internet. Topics include preparing pretrial litigation documents, as well as drafting a complaint, answer, and summons.

Prerequisite: LAW 101 and 259.

**LAW 232 Criminal Procedure 3 (3,0,0,0)**

Examines the criminal justice system, including procedures from arrest to final disposition, principles of constitutional, federal, state and local laws as they affect the process in criminal court procedures.

Prerequisite: LAW 101.

**LAW 234 Civil Procedure II 3 (3,0,0,0)**

This course explores the court system in Nevada from the point of preparing for trial to post trial and alternative dispute resolutions, by retrieving rules from Nevada websites and federal websites. The students will be preparing documents for trial, including summarizing depositions and medical records.

Prerequisite: LAW 231.

**LAW 250 Administrative Law 3 (3,0,0,0)**

Study of the history of administrative agencies, administrative law procedures, use of expert witnesses, law of evidence, constitutional limitations and judicial review.

Prerequisite: LAW 101.

**LAW 251 Bankruptcy 3 (3,0,0,0)**

Study of expanded jurisdiction, its effects on financial rehabilitation of individuals and corporations; involuntary petitions, preparation of voluntary petitions filing; automatic stay provisions, complaint to vacate stay and abandonment of assets.

Prerequisite: LAW 101.

**LAW 252 Family Law 3 (3,0,0,0)**

The law of family relations, including the following: marriage, annulment, dissolution, divorce, separation, guardianship, adoption, custody and legitimacy of children, parental rights and rights and duties of minors.

Prerequisite: LAW 101.

**LAW 253 Law Office Management 3 (3,0,0,0)**

A study of economical and efficient law office practices and procedures including the proper use of law office technology and computerized data processing.

Prerequisite: ENG 101 and IS 101 both with a grade of C or higher.

**LAW 255 Probate Procedures 3 (3,0,0,0)**

Law related to estate planning issues. Includes procedure to distribute a person's estate upon one's death, creation and administration of a trust and procedure to appoint another to act on one's behalf. Also includes a discussion of health care documents and related elderly care issues.

Prerequisite: LAW 101.



**LAW 258 Constitutional Law 3 (3,0,0,0)**

This course will introduce the student to the fundamental principles and concepts of American Constitutional Law with specific emphasis on civil rights, liberties and responsibilities.

Prerequisite: LAW 101.

**LAW 259 Legal Writing 3 (3,0,0,0)**

An in-depth study and development of legal writing skills. Introduction to the major forms of legal writing, legal terminology, and the principles for organization of legal memorandums or briefs.

Prerequisite: LAW 101 or Instructor approval.

**LAW 261 Legal Research I 4 (4,0,0,0)**

Legal research and terminology, including law library familiarization and development of skills. Emphasis on finding, reading and synthesizing cases and in preparing legal memoranda.

Prerequisite: LAW 101 and 259.

**LAW 262 Legal Research II 4 (4,0,0,0)**

In-depth study for developing legal research and writing skills. Subjects presented in Legal Research I will be covered in greater detail using federal, state, and administrative law. Emphasis will be placed upon computer assisted legal research tools such as Westlaw, Lexis, and the Internet.

Prerequisite: LAW 261.

**LAW 263 Ethics 3 (3,0,0,0)**

Covers the relationship between the court, attorney, client and legal assistant. Discusses what a legal assistant may and may not do. Also discusses conflicts of interest, dealing with witnesses and adverse parties and confidentiality.

**LAW 264 Civil Evidence 3 (3,0,0,0)**

To familiarize the student with the rules and forms of evidence that is admissible in court.

Prerequisite: LAW 101.

**LAW 295 Supervised Field Experience 3 (0,0,0,8)**

Offers legal assistant work experience under the supervision of an attorney. The student will work at a local law firm or agency eight hours per week, for a total of 120 hours to gain practical work experience. The student and law firm/agency will report their experience to the program director.

Prerequisite: Completion of 21 LAW credits and Legal Programs Director approval.

**Library Skills****LIB 101 Research for College Papers 1 (1,0,0,0)**

An overview of basic research strategies using Internet and print resources. Focus is on gathering viable information for college assignments.

**Medical Assisting****MA 104 Introduction to Medical Assisting 2 (2,0,0,0)**

Introduction to the profession of Medical Assisting. Topics include professionalism, communication techniques, community resources, medical ethics and confidentiality.

Corequisite: ENG 100 or 101 or 113 with a grade of C or higher.

**MA 106B The Body in Health and Disease 4 (4,0,0,0)**

Essential anatomy and physiology as it is applicable to medical assistants. The application of anatomy and physiology with regards to patient interviewing, education, and communication as well as patient preparation and positioning for diagnostic and imaging procedures.

Corequisite: MA 107B.

**MA 107B Medical Assistant Techniques I 4 (3,3,0,0)**

Emphasis on the clinical aspect of a medical office. Topics include preparation, assisting, vital signs, basic pharmacology, nutrition and diet therapy.

Corequisite: MA 106B.

**MA 110B Medical Assistant Techniques II 4 (3,3,0,0)**

Continued practice of the principles of infection control, patient interviewing and communication, and patient and equipment preparation for exam. Assisting in various specialties not previously discussed, diagnostic imaging, medication preparation and administration, performance of ECG and PFT, assisting with minor office procedures, and emergency procedures.

Prerequisite: MA 106B and 107B both with a grade of C or higher.

Corequisite: MA 120B.

**MA 120B Medical Office Management 3 (2,3,0,0)**

The theory, practice, and techniques of medical office management. This course emphasizes medical administrative responsibilities, records management, business management, managed care, and computerized office management.

Prerequisite: MA 106B and 107B both with a grade of C or higher; or Program Director approval.

**MA 130B Clinical Externship 3 (0,0,12,0)**

Provides unpaid practical medical assisting experience in the physician's office or a medical clinic. Student is an active participant in the administrative and clinical areas. The externship is part of the curriculum and is a learning experience. This course is graded pass/fail.

Prerequisite: Instructor approval (all prerequisite screenings must be completed and approved prior to beginning this course).

Corequisite: MA 131B.





**MA 131B Externship Seminar 1 (1,0,0,0)**

Discussions of clinical issues and experiences with emphasis on case studies, role playing and problem solving techniques.

Prerequisite: MA 110B and 120B both with a grade of C or higher.

Corequisite: MA 130B.

**MA 195B Application of Medical Assisting Concepts 2 (1,3,0,0)**

A review of medical assisting concepts and preparation for the national certification exam. Practice exams and a focused review are completed before taking the national certification exam as the final exam in the course.

Prerequisite: MA 110B and 120B with a grade of C or higher; or Program Director approval.

**Mathematics****MATH 050D Mathematics for the Trades 3 (3,0,0,0)**

Course emphasizes solving apprenticeship related applied problems and includes a review of basic mathematics operations, exponents, English and Metric measurement, elementary algebra, scientific notation, plane and solid geometric figures, and triangle trigonometry.

**MATH 091 Basic Mathematics 3 (3,0,0,0)**

A course in arithmetic. Topics include fractions, decimals, measurements, percents, ratios, and proportions. A comprehensive, proctored, departmental final exam will be given.

**MATH 092 Algebra Review 3 (1,2,0,0)**

MATH 092, Algebra Review, 1-2 Credits – A course intended to review topics from Elementary and Intermediate Algebra. It is a course specifically designed to be one half of a Stretch course. This course does not satisfy the

Prerequisites of any CSN math courses. Prerequisite: A satisfactory ACT/ SAT/ Placement Test score.

**MATH 093 Pre-Algebra 1-3 (1-3,0,0,0)**

A course intended to review arithmetic and to preview elementary algebra. A comprehensive, proctored, departmental final exam will be given. Students must pass this final exam with 60% or better in order to earn at least the grade of C in the course.

Prerequisite: Satisfactory SAT/ACT/Placement Test score.

**MATH 095 Elementary Algebra 3 (3,0,0,0)**

A course in the fundamental operations of real numbers, solving linear equations in one variable, graphing linear equations in two variables, solving linear systems in two variables, and performing basic operations on polynomials. Intended to provide a basic foundation for future mathematics needed in fields of business, economics, engineering and related fields. Strong background in fractions and positive and negative numbers is highly recommended. A comprehensive, proctored, departmental final exam will be given.

Prerequisite: MATH 093 or MATH 116 with a grade of C or better; or a satisfactory ACT/SAT/Placement Test score.

**MATH 095E Elementary Algebra Expanded 4 (3,3,0,0)**

A course intended to review arithmetic and prealgebra. This is also a course in the fundamental operations of real numbers, solving linear equations in one variable, exponents, polynomials, graphing linear equations in two variables, and solving linear systems in two variables. Provides basic foundation for future mathematics needed in many fields. Please note that this course does NOT satisfy the math component of a degree or certificate program at CSN.

Prerequisite: MATH 91 with a grade of B or better; or Satisfactory SAT/ACT/Placement Test score.

**MATH 095LEC Elementary Algebra Lecture 3 (3,0,0,0)**

A course intended to review arithmetic and prealgebra. This is also a course in the fundamental operations of real numbers, solving linear equations in one variable, exponents, polynomials, graphing linear equations in two variables, and solving linear systems in two variables. Provides basic foundation for future mathematics needed in many fields. Please note that this course does NOT satisfy the math component of a degree or certificate program at CSN.

Prerequisite: MATH 91 with a grade of B or better; or Satisfactory SAT/ACT/Placement Test score.

Corequisite: MATH 95L.

**MATH 096 Intermediate Algebra 3 (3,0,0,0)**

Topics include factoring polynomials, rational expressions and equations, radical expressions and equations, quadratic equations, graphs and applications. A comprehensive, proctored, departmental final exam will be given.

Prerequisite: MATH 095 with a grade of C or better; or a satisfactory ACT/SAT/Placement Test score.

**MATH 097 Elementary and Intermediate Algebra 5 (5,0,0,0)**

A one-semester course equivalent to the combination of MATH 095 and MATH 096. Topics include solving linear equations in one variable, polynomials, integer exponents, factoring, rational expressions and equations, graphing linear equations in two variable, inequalities, systems of linear equations, radicals and rational exponents, and quadratic equations. A comprehensive, proctored, departmental final exam will be given.

Prerequisite: MATH 093 or 116 with a grade of C or better; or a satisfactory ACT/SAT/Placement Test score.

**MATH 100B Math for Allied Health Programs 3 (3,0,0,0)**

A course designed to provide the mathematics skills used in allied health fields. Topics include operations with fractions and decimals, measurement systems, percents, ratios and proportions, drug calculations, and IV flow rates.

**MATH 104B Applied Mathematics 3 (3,0,0,0)**

Emphasizing applications, topics include arithmetic, algebra, pre-algebra, graphing, geometry, finance, probability and statistics. Course is only applicable for AAS and AGS degrees and is not transferable for credit.



**MATH 115B Mathematics for the Hospitality/Gaming Industry 3 (3,0,0,0)**

Using data and examples relevant to the hospitality/gaming industry, students will use an applied approach to learn math skills relevant to this industry. Topics covered will include fractions, decimals, geometry, percents, ratio and proportions, probability and statistics. The use of computers and calculators will be integrated into the applications. Students will work in “teams” on some projects and activities.

**MATH 116 Technical Mathematics 3 (3,0,0,0)**

Concepts that will allow students to become proficient in the mathematics used in technical fields are the focal point of this course. Topics include fundamental operations with signed numbers; measurement systems; exponents; order of operations; scientific notation; algebraic expressions; linear equations and inequalities; an introduction to graphing; simple geometric figures, logarithms; and fundamentals of trigonometry. MATH 091 is strongly recommended prior to enrollment.

**MATH 120 Fundamentals of College Mathematics 3 (3,0,0,0)**

Topics include probability, statistics, geometry, and consumer mathematics. It may include problem solving, sets, logic, mathematical systems, numeration, and measurement. Course is broad in scope, emphasizing applications.

Prerequisite: MATH 095 with a grade of C or better; or a satisfactory ACT/SAT/Placement Test score.

**MATH 120H Fundamentals of College Mathematics - Honors 3 (3,0,0,0)**

An Honors-level study of topics include problem solving, sets, probability, statistics, geometry, and consumer mathematics. It may include logic, mathematical systems, measurement, and graph theory. Course is broad in scope, emphasizing applications. Honors emphasizes interactive learning and entailing an examination of the self and understanding basic evolution of mathematical ideas through the use of reflective reasoning and dialogue. Courses with “H” suffixes are designated Honors-level courses and can be used to fulfill equivalent general education requirements.

Prerequisite: MATH 095 with a grade of C or better; or satisfactory ACT/SAT/Placement Test score as well as Admission to the Honors program.

**MATH 122 Number Concepts for Elementary School Teachers 3 (3,0,0,0)**

Mathematics needed by those teaching the new-content curriculum at the elementary school level, emphasizing number concepts. This course does not satisfy the general education core requirements.

Prerequisite: MATH 096 or 097 both with a grade of C or better; or a satisfactory ACT/SAT/Placement Test score.

**MATH 123 Statistical and Geometrical Concepts for Elementary School Teachers 3 (3,0,0,0)**

Mathematics needed by those teaching the new-content curriculum at the elementary school level, emphasizing concepts in statistics, geometry, and probability.

Prerequisite: MATH 122 with a grade of C or better.

**MATH 124 College Algebra 3 (3,0,0,0)**

Practical applications are the focal point of this course. Topics include equations and inequalities; linear, quadratic, polynomial, exponential and logarithmic functions and their graphs; solutions of systems of linear equations; matrices; and sequences and series. Note: This course does NOT serve as a Prerequisite for MATH 127 nor is it sufficiently rigorous for entry into calculus

Prerequisite: MATH 096 or 097 both with a grade of C or better; or a satisfactory ACT/SAT/Placement Test score.

**MATH 126 Precalculus I 3 (3,0,0,0)**

A rigorous discussion of algebra concepts necessary for calculus is the focal point of this course. Topics include an in-depth investigation of algebraic functions and their graphs and solutions of systems of equations.

Prerequisite: MATH 096 or 097 both with a grade of C or better; or a satisfactory ACT/SAT/Placement Test Score. Note: This course serves as a prerequisite course for MATH 127 and is essential for students planning to take calculus.

**MATH 127 Precalculus II 3 (3,0,0,0)**

Topics include an in-depth investigation of trigonometric functions and their graphs, analytic trigonometry, solutions of triangles, vectors, and analytic geometry.

Prerequisite: MATH 126 with a grade of C or better; or a satisfactory ACT/SAT/Placement Test score. Note: This course is essential for students planning to take calculus.

**MATH 128 Precalculus and Trigonometry 5 (5,0,0,0)**

A one semester course equivalent to the combination of MATH 126 and MATH 127. Topics include an in-depth investigation of algebraic and trigonometric functions and their graphs, solutions of systems of equations, analytic trigonometry, solutions of triangles, vectors, and analytic geometry.

Prerequisite: MATH 096 or 097 both with a grade of C or better; or a satisfactory ACT/SAT/Placement Test score.

**MATH 132 Finite Mathematics 3 (3,0,0,0)**

Topics include symbolic logic, set theory, and probability theory applied to the analysis of business and social science problems.

Prerequisite: A grade of C or better in either MATH 124 or 126 or 128; or a satisfactory ACT/SAT/Placement Test score.



**MATH 170 Mathematics of Finance 3 (3,0,0,0)**

A mathematical study of interest annuities, sinking funds, depreciation, amortization and other topics related to business problems.

Prerequisite: MATH 096 or 1-1/2 units of high school algebra.

**MATH 176 Introductory Calculus for Application in Business and Social Sciences 4 (4,0,0,0)**

Differentiation and integration of algebraic functions with applications to the analysis of business and social science problems.

Prerequisite: Placement Test; or MATH 124 or 126 or equivalent.

**MATH 181 Calculus I 4 (4,0,0,0)**

Differentiation and integration of algebraic and transcendental functions with applications.

Prerequisite: MATH 126 and 127 or 128 all with a grade of C or better; or a satisfactory ACT/SAT/Placement Test score.

**MATH 182 Calculus II 4 (4,0,0,0)**

Topics include further applications and techniques of integration with applications, polynomial approximations, sequences, and series.

Prerequisite: MATH 181 with a grade of C or better; or a satisfactory ACT/SAT/Placement Test score.

**MATH 211B Advanced Mathematics for Electronics 4 (4,0,0,0)**

An advanced course focusing on the mathematics that supports RADAR theory, circuit theory and telecommunications theory. The course will include conic sections, trigonometric functions and vectors, matrices, analytic geometry, and the introduction to differential and integral calculus, applications of first and second order differential equations in electronics, and Laplace transforms.

Prerequisite: MATH 111B; and ET 132B; or Instructor approval.

**MATH 251 Discrete Mathematics I 3 (3,0,0,0)**

Topics include fundamental principles of logic and proof methods, elements of set theory, equivalence relations and partitions, counting techniques, mathematical induction, cardinality, power set, inclusion-exclusion principle, Cartesian product, pigeonhole principle, binomial theorem, probability and expectation.

Prerequisite: MATH 127 or equivalent

Corequisite: MATH 181 or equivalent.

**MATH 253 Matrix Algebra 3 (3,0,0,0)**

Introduces linear algebra, including matrices, determinants, vector spaces, linear transformations, eigenvectors and eigenvalues.

Prerequisite: MATH 182 with a grade of C or better.

**MATH 283 Calculus III 4 (4,0,0,0)**

Topics include vectors, differentiation and integration of vector valued functions, multi-variable calculus, partial derivatives, multiple integrals, and applications.

Prerequisite: MATH 182 with a grade of C or better; or a satisfactory ACT/SAT/Placement Test score.

**MATH 285 Differential Equations 3 (3,0,0,0)**

Theory and techniques for constant and variable coefficient ordinary linear differential equations. Also included are a number of non-linear types of ordinary differential equations. Emphasis will be on those differential equations arising from modeling real world phenomena.

Prerequisite: MATH 182 with a grade of C or better.

**Mechanical Engineering****ME 242 Dynamics 3 (3,0,0,0)**

Engineering analysis of bodies in motion in both two- and three-dimensions; analysis of the kinematic and kinetic principles for both particles and rigid bodies; the development and utilization of the concepts of force and acceleration, work, energy, impulse, momentum and impact.

Prerequisite: CEE 241; and PHYS 180 and 180L; and MATH 182.

**Management****MGT 100B Practical Human Relations for Business 3 (3,0,0,0)**

Study of human factors involved in business and management with emphasis upon mutual responsibilities and communication problems of employees, managers and customers. Team activities.

**MGT 103 Introduction to Small Business Management 3 (3,0,0,0)**

Topics covered include start-up, financial and administrative controls, marketing programs, management techniques, legal and governmental relationships. All aspects of operating a business will be thoroughly discussed.

**MGT 201 Principles of Management 3 (3,0,0,0)**

Topics covered include fundamentals and principles of management, administrative policies, objectives and procedures and problems of organization control and leadership.

**MGT 212 Leadership and Human Relations 3 (3,0,0,0)**

Focus is on understanding and managing human behavior in organizations. Developing a better understanding of one's self as a leader and exploring some of the more effective ways of leading others.



**MGT 235 Organizational Behavior 3 (3,0,0,0)**

Topics include concepts, theories and case studies concerning the behavior of people in modern business organizations.

**MGT 283 Introduction to Human Resources Management 3 (3,0,0,0)**

Designed to develop an understanding of the duties and responsibilities of personnel at the mid-management level. Areas covered include: employee needs, human relations, recruiting techniques, orienting and training employees, benefit programs and economics of supervision.

**MGT 284B Introduction to International Management 3 (3,0,0,0)**

Examination of the management of resources (people, capital goods, money, inventories and technology) across national boundaries. The student will also learn to adapt management principles and functions to the demands of foreign competition and environment. The class will be supplemented with international speakers.

Prerequisite: MGT 201.

**MGT 286B Personnel Interviewing 3 (3,0,0,0)**

A study of the legal aspects of interviewing in the public and private sector. Students participate in oral board, orientation, counseling, exit and performance appraisal simulations.

**MGT 294B Seminar in Management 3 (3,0,0,0)**

Analysis of the nature and problems in management. Focus is on planning, organizing, decision making and controlling through the study of recent relevant literature and selected cases. May be taken a maximum of three times.

**MGT 301 Principles of Management and Organizational Behavior 3 (3,0,0,0)**

Fundamentals and principles of management. Administrative policies, objectives, and procedures. Problems of organizational control and leadership.

Prerequisite: BUS 101.

**MGT 367 Human Resource Management 3 (3,0,0,0)**

Objectives, functions, organization, and philosophy of personnel relations. Special emphasis on employment, training, and labor relations.

Prerequisite: MGT 301.

**MGT 415 Business and Society 3 (3,0,0,0)**

Examines the relationships of business, government and society in the social, economic and political systems of the United States and the world. Issues in business/government relations, regulation, business ethics, law and international competition are discussed, and case material is used.

Prerequisite: BUS 101 or Instructor approval.

**MGT 423 Advanced Topics in Organizational and Interpersonal Behavior 3 (3,0,0,0)**

This course focuses on selected behavioral influences affecting decision making, organizational structure: including organizational power and politics, change and development and/or creativity.

Prerequisite: BUS 101 or Instructor approval.

**MGT 430 Management Technology Leadership 3 (3,0,0,0)**

This course is designed to introduce students on methods to develop leadership skills in the field of adopting technology advances to create value for the organization. The development of assessing the current climate of technology and its application to the business environment to promote change within an organization is strongly identified.

Prerequisite: BUS 101 or Instructor approval.

**MGT 441 Operational Quality Control and Problem Solving 3 (3,0,0,0)**

Provide students with a basic understanding of the principles of Operations Management and while demonstrating how to apply the basic principles of quality control.

Prerequisite: BUS 101 or Instructor approval.

**MGT 462 Changing Environment 3 (3,0,0,0)**

Managing ethically in the changing cultural, economic, political, technological and global environments of business.

Prerequisite: BUS 101 or Instructor approval.

**MGT 494 Seminar in Management 3 (3,0,0,0)**

Fundamentals and process of project management within an organizational setting; surveying and analysis of the project management field and its impact within various companies and organizations.

Prerequisite: BUS 101 or Instructor approval.

**MGT 496 Strategic Management and Policy 3 (3,0,0,0)**

This course focuses on the fundamentals of strategic project management and its role and purpose within an organizational structure.

Prerequisite: BUS 101 or Instructor approval.

**Mental Health Services****MHDD 101 Role of the Technician 1 (1,0,0,0)**

Basic skills in behavioral observation, documentation and approaches to intervention as a treatment team member. Other topics include guardianship, rights, confidentiality, abuse and neglect, and program implementation.



**MHDD 102 Medical Component 1 (1,0,0,0)**

This course covers basic medical information including infection control, safety procedures, confidentiality, awareness of normal bodily functions, personal care and recognition of signs and symptoms that need to be reported to medical staff.

**MHDD 103 Psychopathology and Developmental Disabilities 1 (1,0,0,0)**

Study of the functional relationship between dual diagnosis of mental disorders and/or developmental disabilities and individual treatment issues raised by dual diagnosis.

**MHDD 105 Conflict Prevention and Response Training 2 (2,0,0,0)**

This course focuses on the application of prevention and response techniques to support persons in crisis or conflict with others. These applications are for use by service providers as approved by the State of Nevada, Division of Mental Health and Developmental Services.

**MHDD 106 Teaching and Active Treatment 1 (1,0,0,0)**

Defining “active treatment” and its necessary components. Implementing active treatment in a service context of dignity, respect, privacy, access to choices and participation in the therapeutic process with the use of effective teaching methods.

**MHDD 107 Medication Fundamentals 2 (2,0,0,0)**

Study of major categories of psychotropic and seizure medications. Rationale for use of medication, typical dosages, main effects, assessment of effectiveness and potential side effects.

**MHDD 109 Introduction to Therapeutic Interventions 2 (2,0,0,0)**

Basic approaches to behavioral intervention including defining behavior, data collection, principles and application of behavior change techniques, and implementation of behavioral programs.

**MHDD 110 Introduction to Disability Services 3 (3,0,0,0)**

Study of the history, social attitudes, major diagnostic categories, assessment techniques, major service approaches, legislation and standards of services related to persons with disabilities.

**MHDD 126 Understanding Developmental Disabilities 2 (2,0,0,0)**

Definition, history, diagnosis and causes of developmental disabilities. Development and delivery of effective direct support services to persons with developmental disabilities.

**MHDD 127 Positive Behavior Supports 2 (2,0,0,0)**

Addressed are applied approaches to changing behavior emphasizing positive learning principles, including functional observation and assessment of behavior, data collection, computation and graphing of data, positive behavior support planning and implementation, reinforcement, and progress evaluation.

**MHDD 130 Teaching Life Skills 3 (3,0,0,0)**

Study of teaching functional life skills to persons with disabilities, including persons with physical, social, vocational, communicative, intellectual, cognitive, and other mental disabilities.

**MHDD 150 Issues In Substance Abuse 1 (1,0,0,0)**

Overview of substance abuse issues and study of basic treatment approaches. Includes biological and lifestyle factors as well as legal issues.

**MHDD 152 Allied Therapies 1 (1,0,0,0)**

Study of the interdisciplinary roles of psychiatrists, psychologists, nurses, social workers, speech therapists, occupational therapists, recreational therapists and other professions involved in the therapeutic process.

**MHDD 153 Life Span Development 1 (1,0,0,0)**

Human growth and development through the life span. Includes social, cognitive and biological perspectives related to direct support services to persons with mental illness and/or developmental disabilities.

**MHDD 154 Advanced Therapeutic Interventions 2 (2,0,0,0)**

A working knowledge of therapeutic interventions, including active listening skills, elements of treatment plans, applications of basic treatment models and issues in therapeutic relationships.

Prerequisite: MHDD 109.

**MHDD 160 Understanding Mental Illness 2 (2,0,0,0)**

Practical strategies for working with people with mental illness. Includes a brief history, social stigma, major diagnostic categories, common treatment issues and development of treatment plans related to mental illness.

**MHDD 210 Autism Spectrum Disorders 3 (3,0,0,0)**

Overview of autism spectrum disorders, including: assessment, diagnostic criteria, behavioral characteristics, impact on family, current research/intervention approaches, and support services.

**MHDD 291B Fieldwork Experience 3 (1,0,0,12)**

Experience to apply academic skills to on-site job training in human services agencies under experienced on-site supervision and on-going consulting with faculty mentor. May be repeated to a maximum of nine credits.

Prerequisite: Completion of at least ten MHDD credits and Program Director approval.

**MHDD 295 Practicum 3 (1,0,0,6)**

Applied observation, experience, and reporting of service learning within approved community services setting.

Prerequisite: Instructor approval..



**MHDD 299 Capstone Project 3 (1,0,0,6)**

This course provides a capstone experience to integrate theory and academic coursework into a substantive applied project for students majoring in Mental Health Services.

Prerequisite: Program Director approval.

## Military Science

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**MIL 100 Leadership Lab 1 (0,2,0,0)**

Practicum in those skills taught in the classroom during the other military science classes. Hands-on lab led by mentored cadets focusing on leadership, planning and execution of squad tactics, movement formations, drill and ceremonies, equipment inspections, rappelling, land navigation, orienteering, rifle marksmanship, and air-mobile operations. Leadership Lab is required every semester in conjunction with the appropriate military science class.

**MIL 101 Leadership and Personal Development 2 (2,0,0,0)**

Mission of the armed services, introduction to the United States Army, its customs and traditions, the role of the Army Officer, the role of the Non-Commissioned Officers Corps, Organizations of the TOTAL Army (Including the National Guard and Army Reserves). Introductory orienteering, marksmanship, physical fitness and briefing skills.

**MIL 101L Military Science Lab and Physical Training I 1 (0,2.75,0,0)**

MIL 101L continues to focus the development to the professional challenges and competencies that are needed for effective execution of the profession of arms and Army communication. The Advanced leadership lab is a Practicum in those skills taught in conjunction with classroom instruction given during the MIL 101 Lecture. Hands-on lab focusing on military leadership, battalion staff planning and training development for the execution of platoon and squad level tactics, movement formations, and land navigation. This is a hands-on lab focusing on the further development of military leadership, planning and execution of Platoon and squad tactics, movement formations, and land navigation.

**MIL 102 Introduction to Tactical Leadership 2 (2,0,0,0)**

Continuation of the mission of the armed services, introduction to the United States Army, its customs and traditions, the role of the Non-Commissioned Officers Corps, Organizations of the TOTAL Army (Including the National Guard and Army Reserves). Introductory orienteering, marksmanship, physical fitness and briefing skills.

**MIL 102L Military Science Lab and Physical Training II 1 (0,2.75,0,0)**

MIL 102L continues to focus the development to the professional challenges and competencies that are needed for effective execution of the profession of arms and Army communication. The Advanced leadership lab is a Practicum in those skills taught in conjunction with classroom instruction given during the MIL 102 lecture. Hands-on lab focusing on military leadership, battalion staff planning and training development for the execution of platoon and squad level tactics, movement formations, and land navigation. This is a hands-on lab focusing on the further development of military leadership, planning and execution of Platoon and squad tactics, movement formations, and land navigation.

**MIL 201 Innovative Team Leadership 2 (2,0,0,0)**

Introduction to leadership and management, which develops the basic skills that must be learned in order to perform as an effective leader. Introduction to the Army Leadership Development Program (LDP), the decision-making process, the code of conduct, the Army Operations Order format and its use. Advanced land navigation, physical fitness and briefing skills.

**MIL 201L Military Science Lab and Physical Training III 1 (0,2.75,0,0)**

MIL 201L continues to focus the development to the professional challenges and competencies that are needed for effective execution of the profession of arms and Army communication. The Advanced leadership lab is a Practicum in those skills taught in conjunction with classroom instruction given during the MIL 201 lecture. Hands-on lab focusing on military leadership, battalion staff planning and training development for the execution of platoon and squad level tactics, movement formations, and land navigation. This is a hands-on lab focusing on the further development of military leadership, planning and execution of Platoon and squad tactics, movement formations, and land navigation.

**MIL 202 Foundations of Tactical Leadership 2 (2,0,0,0)**

Leadership and management, which develops the basic skills that must be learned in order to perform as an effective leader. Introduction to the Army Leadership Development Program (LDP), the decision-making process, the code of conduct, the Army Operations Order format and its use. Advanced land navigation, physical fitness, and briefing skills.

**MIL 202L Military Science Lab and Physical Training IV 1 (0,2.75,0,0)**

MIL 202L continues to focus the development to the professional challenges and competencies that are needed for effective execution of the profession of arms and Army communication. The Advanced leadership lab is a Practicum in those skills taught in conjunction with classroom instruction given during the MIL 202 lecture. Hands-on lab focusing on military leadership, battalion staff planning and training development for the execution of platoon and squad level tactics, movement formations, and land navigation. This is a hands-on lab focusing on the further development of military leadership, planning and execution of Platoon and squad tactics, movement formations, and land navigation.



## Marketing

**MKT 123 Sales Promotion 3 (3,0,0,0)**

Provides the basic knowledge necessary to develop sound sales promotion practices. Builds on a rigorous base of consumer psychology and treats advertising, reseller stimulation, personal selling and other communication tools as part of an overall promotional mix.

**MKT 127 Introduction to Retailing 3 (3,0,0,0)**

Directs the student's attention to the dollar and cents implications of managerial decisions and to the various methods used to measure the profitability of those decisions in the field of retailing. Underlines the importance of customer requirements, taste and expectations, emphasizing the retailing implications of market factors.

**MKT 132 Sales Management 3 (3,0,0,0)**

Provides a comprehensive view of the sales manager as an administrator. Presents a detailed picture of how to operate a sales force including selecting, training, compensating, supervising and motivating sales people.

**MKT 210 Marketing Principles 3 (3,0,0,0)**

Survey of marketing. Studies problems of the manufacturer, wholesaler and retailer in the marketing of goods and services, channels of distribution, customer relations, pricing policies and communications.

**MKT 211 Introduction to Professional Sales 3 (3,0,0,0)**

Provides a comprehensive hands-on experience in selling techniques as they relate to modern industrial, wholesale and consumer products.

**MKT 250 Introduction to International Marketing 3 (3,0,0,0)**

Introduces the student to the various functions of marketing as they are performed in the international environment. Focuses on the problems and decisions facing management in international marketing. Considers the impact of differences in language, aesthetics, religion and business customs on marketing strategies.

Prerequisite: MKT 210.

**MKT 261 Introduction to Public Relations 3 (3,0,0,0)**

Techniques of public relations for those holding supervisory or higher positions in management and marketing. Principles of creating and maintaining good public relations, including employee/employer relations. Customer/employee relations receive emphasis while focusing on the programming of the total public relations effort and selecting of appropriate strategy, media and persuasive devices to accomplish objectives.

**MKT 450 Competitive Strategies for Product and Price Management 3 (3,0,0,0)**

This course is designed to broaden and deepen understanding, application, and evaluation of project and price management decision-making issues.

Prerequisite: BUS 101 or Instructor approval.

## Mechanical Technology

**MT 101B Introduction to Theater Technology 2 (2,0,0,0)**

Introduction and survey of theater history and technology. Identification of criteria for employment and goal achievement in theater environment. Understanding technical and occupational skills needed for meaningful employment within the theater industry.

**MT 102B Fundamentals of Electricity 4 (3,2,0,0)**

Fundamentals of constructing electrical circuits, measuring their predictable parameters, using measuring instruments and materials needed to maintain and repair electrical systems. Students in this course should have a working knowledge of algebra.

**MT 104B Industrial Electricity 4 (3,2,0,0)**

The course concentrates on fabricating, maintaining, troubleshooting, and repairing electrical systems encountered in industry. Emphasis is on the different types of common motor controllers and ladder logic for configuration.

Prerequisite: MT 102B; or ET 131B; or AC 102B; or Instructor approval; or Program approval.

**MT 106B Mechanical Power Transmission 4 (3,2,0,0)**

Overview of hardware components of mechanical power to include preventive maintenance, troubleshooting, overhauling and repairing parts and equipment.

**MT 108B Fluid Power (Pneumatics, Hydraulics, Instrumentation) 4 (3,2,0,0)**

Presents the theoretical basis for hydraulic and pneumatic circuitry. Attention is given to circuit components and how they work. Assembly, disassembly and troubleshooting is emphasized.

**MT 110B Material Science I (Ferrous and Non-Ferrous) 4 (3,2,0,0)**

The study of compositions, structures and behaviors of ferrous and non-ferrous materials and their effects on physical, mechanical and electrical.

**MT 112B Manufacturing Quality Control 3 (2,2,0,0)**

The development of a process to determine when a system is in or out of its parameters. Data collection, analysis and problem solving is emphasized.



**MT 114B Automated Manufacturing Control 3 (2,2,0,0)**

Encompasses the requisition, ordering, expediting and stock control of materials. Principles of computer and sensor operated manufacturing are presented.

**MT 115B Programmable Logic Controllers I 3 (2,2,0,0)**

Presents the principle of programming logic controller and computerized sensor controls. Emphasis placed on troubleshooting and maintaining computerized sensor control systems.

Prerequisite: A grade of C or higher in AC 102B or ET 131B or MT 102B or 104B; AND either IS 100B (with a grade of pass) or a grade of C or higher in IS 101 or CIT 112 or CSCO 120; or Instructor or Department approval.

**MT 116B Programmable Logic Controllers II 3 (2,2,0,0)**

Advanced programmable control applications and uses dealing with programmable control frequency drives and man machine interfaces packages.

Prerequisite: MT 115B with a grade of C or better; and one of the following with a grade of C or better: CIT 112B or CIT 119B or CSCO 120; or program approval.

**MT 120B Electrical Safety 1 (1,0,0,0)**

This course covers the proper safety procedures based on OSHA standards 29 CFR 1910 requiring qualification for work on live circuits.

**MT 121B Fundamentals of Industrial Measurement 2 (2,0,0,0)**

This course covers basic electrical pressure, density, viscosity, temperature measurements and application of Ohm's Law. Safe and correct usage of various meters, gauges and test equipment will be emphasized.

**MT 122B Hand Tools and Measuring Instruments 1 (1,0,0,0)**

Using computer simulation, the student will articulate proper holding of hand tools for turning and striking. In this same fashion the student will also set up, calibrate and properly use precision measurement tools.

**MT 123B Rigging and Lifting 1 (1,0,0,0)**

Computer simulation will be used to demonstrate types of lifting equipment, when each type would be used and proper procedures for planning a lift.

**MT 124B Industrial Lubrication 1 (1,0,0,0)**

This course covers various lubrication systems, their operations, preventative maintenance, repair and failure analysis. Included are ring, bath, splash, constant level and force-fed systems. Proper use of related equipment will be covered.

**MT 130B Introduction to the Natural Gas Industry 3 (2,2,0,0)**

Introduction to the natural gas industry. Includes the history of the gas industry, safety issues, and field operations.

**MT 132B Natural Gas Pipe Joining 3 (2,2,0,0)**

Introduction to the natural gas pipe joining. Includes plastic pipe and metal pipe joining. Types of joining cover plastic solvent, compression coupling, heat fusion, welded, and bolted.

Prerequisite: MT 130B with a grade of C or higher.

**MT 134B Natural Gas Line Locating & Leak Survey 3 (2,2,0,0)**

Introduction to natural gas pipe leak detection. Includes detection of leaks in the various pipeline configurations and subsystems; key devices/tools used in the detection of leaks; and classification, grading, and surveying of leaks.

Prerequisite: MT 132B with a grade of C or better.

**MT 140B Electrical/Electronic Theory 2.5 (2.5,0,0,0)**

This course covers Ohm's Law, the relationship of volts/amps/resistance, basic schematics, symbols and measurement. Analog and digital circuits will be introduced.

Prerequisite: MATH 116.

**MT 141B Electrical Print Reading 1 (1,0,0,0)**

Reading and interpreting the symbols on electrical schematics, determining the function of input, logic and output elements in control circuits are covered.

Prerequisite: MATH 116.

**MT 142B Conduit Bending and Installation 0.5 (0.5,0,0,0)**

Understanding of general conduit bending and installation in accordance with the National Electrical Code (NEC), conduit systems, general specifications and the use of types and major components of materials are introduced.

Prerequisite: MATH 116.

**MT 143B Electrical Control Equipment 3 (3,0,0,0)**

Understanding of installation, maintenance and use of electrical control equipment, such as fuses, circuit breakers, circuit breaker panels, switches, control circuits and relays are covered. This course also covers basic troubleshooting and repair.

Prerequisite: MATH 116.

**MT 144B Electrical/Electronic Test Equipment 1 (1,0,0,0)**

This course deepens the understanding of electronic test equipment, including digital volt/ohmmeters (DVOM), oscilloscopes and function generators.

Prerequisite: MATH 116.





**MT 145B Troubleshooting Skills 0.5 (0.5,0,0,0)**

Basic procedures for troubleshooting electrical control circuits, using schematic diagrams to locate problems. Performing continuity checks and developing a diagnostic routine are also covered.

Prerequisite: MATH 116.

**MT 160B Industrial Hydraulic Power 3 (3,0,0,0)**

Components of hydraulic systems and how the components function together, as well as interpretation of hydraulic schematics are covered.

**MT 161B AC/DC Motors 2 (2,0,0,0)**

Identification of the basic types of AC/DC motors including permanent magnet, three-phase and induction motors, their major components and how to measure, inspect and diagnose malfunctions are covered.

**MT 180B Co-Op/Internship First Semester 3 (0,0,0,12)**

This course provides hands-on opportunities for students to work in actual power utilities environment to gain experience and learn how to apply technical knowledge and skills learned in their course work to actual power utility setting. This Co-Op course is directed by a qualified professional and supervised by the instructor. One credit will be earned for each four hours worked per week during the semester.

**MT 181B Co-Op/Internship Second Semester 3 (0,0,0,12)**

This course provides hands-on opportunities for students to work in actual power utilities environment to gain experience and learn how to apply technical knowledge and skills learned in their course work to actual power utility setting. This Co-Op course is directed by a qualified professional and supervised by the instructor. One credit will be earned for each four hours worked per week during the semester.

**MT 182B Co-Op/Internship Third Semester 2 (0,0,0,9)**

This course provides hands-on opportunities to apply material and skills learned in the interactive, multimedia course work previously completed in MT 160B and MT 161B and MT 162B.

Prerequisite: Department approval.

**MT 183B Co-Op/Internship Third Semester 3 (0,0,0,12)**

This course provides the student with the opportunity to apply the technical knowledge and skills acquired in their course work to actual theater environment. This Co-Op course is directed by a qualified professional and supervised by the instructor. One credit will be earned for each four hours worked per week during the semester.

**MT 184B Co-Op/Internship Fourth Semester 3 (0,0,0,12)**

This course provides hands-on opportunities for students to work in actual theater environment to gain experience and learn how to apply technical knowledge and skills learned in their course work to actual theater settings. This Co-Op course is directed by a qualified professional and supervised by the instructor. One credit will be earned for each four hours worked per week during the semester.

**MT 262B Automation Control Systems 3 (2,2,0,0)**

This course covers Programmable Automation Systems. It utilizes automation controllers, industrial Ethernet switches, motor drives, and Ethernet Remote I/O. Students will create an IP based automation control system. Topics covered will be: system creation; configuration and assembly of industrial Ethernet Switches; configuration and control of IP interfaced motor controllers over the IP based control network; configuration and control of remote I/O over IP based control network.

Prerequisite: MT 116B or Instructor approval or Program approval.

## Music

**MUS 100 Concert Attendance 0 (0,0,0,1)**

Attendance at ten on-campus concerts and/or recitals as a member of the audience. Required of every music major for four semesters. Note: Students taking this course must check in with the Music Office during the first week of the semester.

**MUS 101 Music Fundamentals 3 (3,0,0,0)**

A course in learning to read music, including notation, terminology, scales, and chords. Designed to furnish a foundation for musicianship.

**MUS 102 Beginning Music Theory 3 (3,0,0,0)**

Review course designed for music majors whose background in music theory is not sufficient for admittance into MUS 201. Topics covered include notation, note reading, scales, intervals, chords, part writing, sight singing, and ear training.

**MUS 103 Voice Class I 3 (3,0,0,0)**

Teaches fundamentals of tone production, breath control, and practical techniques involved in reading and interpreting songs.

**MUS 107 Guitar Class I 3 (3,0,0,0)**

A class in basic guitar technique. Recommended for non-Music majors and elementary school teachers. No previous musical training required.

**MUS 108 Guitar Class II 3 (3,0,0,0)**

Classroom instruction in guitar at the intermediate level.

Prerequisite: MUS 107.



- MUS 111 Piano Class I 3 (3,0,0,0)**  
Class instruction in piano playing. This course is for people who have never played the piano.
- MUS 112 Piano Class II 3 (3,0,0,0)**  
A class in basic piano technique designed as a continuation of MUS 111.  
Prerequisite: MUS 111.
- MUS 121 Music Appreciation 3 (3,0,0,0)**  
The course is for students with little or no musical training and focuses on the historical background of classical music and composers and listening to representative works. Emphasis is on increasing the enjoyment and understanding of a variety of classical musical styles.
- MUS 125 History of Rock Music 3 (3,0,0,0)**  
The esthetics and sociology of rock from its origins in rhythm and blues to the rise of Elvis Presley and Rock-a-Billy, Chuck Berry and teenage-rock, Bob Dylan and protest rock, the Beatles and the Rolling Stones, Psychedelic Rock, and Soul.
- MUS 131 Introduction to Music Literature 3 (3,0,0,0)**  
Development of a listening repertoire that will serve as a basis for music history.
- MUS 133 History of The Beatles 3 (3,0,0,0)**  
Students will study the history of The Beatles from their beginnings in Liverpool, England, to their unequaled world popularity. It will feature a mixture of videos, music, and discussion that will cover every important phase of the world's most successful and beloved rock band.
- MUS 134 Jazz Appreciation 3 (3,0,0,0)**  
Study of jazz literature for the layperson from the early 1900s to the present with emphasis on differentiating the various styles of jazz.
- MUS 160 Computer Music Technology I 3 (3,0,0,0)**  
A hands-on course correlating music with computer usage. Classes take place in a one-computer station-per-student environment. Topics include sound/data management, MIDI, basic recording, editing, and signal processing. Systems used may include Ableton Live and Apple Logic.
- MUS 181 Business of Music 3 (3,0,0,0)**  
A general survey course to provide the knowledge of music merchandising, management, publishing, contracts, copyrights, record production, concert promotion and manager selection.
- MUS 201E Basic Musicianship I E 3 (3,0,0,0)**  
Elementary Harmony. A basic study of harmonic practices, including four-part writing and rudimentary forms.  
Prerequisite: Music Theory Placement Exam or MUS 102 with a grade of C or higher.
- MUS 201F Basic Musicianship I F 1 (1,0,0,1)**  
Ear-Training and Sight-Singing Lab. These elements are practiced as related to materials presented in MUS 201E.  
Prerequisite: Music Theory Placement Exam or MUS 102 with a grade of C or higher.
- MUS 202E Basic Musicianship II E 3 (3,0,0,0)**  
Elementary Harmony. A basic study of harmonic practices, including diatonic seventh chords, part-writing, secondary functions, modulations and rudimentary forms.  
Prerequisite: MUS 201E.
- MUS 202F Basic Musicianship II F 1 (1,0,0,1)**  
Ear-Training and Sight-Singing Lab. These elements are practiced as related to materials presented in MUS 202E.  
Prerequisite: MUS 201F.
- MUS 207E Advanced Musicianship I E 3 (3,0,0,0)**  
The study of harmonic practices including part-writing, altered chords, modulations and late nineteenth century techniques.  
Prerequisite: MUS 202E.
- MUS 207F Advanced Musicianship I F 1 (1,0,0,0)**  
Ear-Training and Sight-Singing Lab. These elements are practiced as related to materials presented in MUS 207E.  
Prerequisite: MUS 202F.
- MUS 208E Advanced Musicianship II E 3 (3,0,0,0)**  
The advanced study of harmonic practices including twentieth century techniques and rudimentary counterpoint exercises.  
Prerequisite: MUS 207E.
- MUS 208F Advanced Musicianship II F 1 (1,0,0,0)**  
Ear-Training and Sight-Singing Lab. These elements are practiced as related to materials presented in MUS 208E.  
Prerequisite: MUS 207F.
- MUS 229 Survey of Latin American Music 3 (3,0,0,0)**  
A survey of musical traditions and stylistic trends of Latin America from their roots to the present. This course will explore selected Latin American music works and styles from countries such as Mexico, Cuba, Brazil, Colombia, Argentina and others, studying their influence in other continents and the United States.
- MUS 230 Computer Music Technology II 3 (3,0,0,0)**  
Provides a detailed study into the relationship between music production and computers. Topics include digital signal processing (DSP), software synthesis, plugins, computer audio hardware, and other components of the digital audio workstation (DAW). Systems used may include Apple Logic, Ableton Live, and Makemusic Finale.  
Prerequisite: MUS 160 with a grade of C- or higher.



**MUS 231 Recording Techniques I 3 (3,0,0,0)**

An introduction to audio recording including theoretical concepts, terminology, microphones, consoles, and use of analog and digital equipment. Includes hands-on training.

Corequisite: MUS 239.

**MUS 232 Recording Techniques II 3 (3,0,0,0)**

An intermediate course in multi-track recording techniques including discussions on session procedures, production techniques, tracking and overdubbing methods, and general equipment operation.

Prerequisite: MUS 231.

Corequisite: MUS 240.

**MUS 239 Virtual Studio Technology 3 (3,0,0,0)**

Explores the theory and application of hard-disc recording systems, particularly ProTools, from setup to mastering. Students have hands-on experience while learning concepts and techniques for proper functioning of MIDI, digital audio, I/O, plugins, etc. NOTE: This course uses Avid ProTools.

**MUS 240 Virtual Studio Technology II 3 (3,0,0,0)**

A continuation of MUS 239. Emphasizes advanced DAW usage, particularly ProTools. Students have hands-on experience with concepts and techniques including signal routing strategies, keyboard shortcuts, power commands, editing, automation and other advanced DAW features. NOTE: This course uses Avid ProTools.

Prerequisite: MUS 239 with a grade of C- or higher.

**MUS 249 Harp 1 (0,0,0,0.5)**

Private instruction in harp. May be repeated up to a maximum of four credits.

**MUS 251 Jazz Fundamentals I 3 (3,0,0,0)**

Study of chord/scale relationships in improvising jazz/rock music. Includes voicings for keyboard and instrumental performance.

Prerequisite: Appropriate musical background.

**MUS 255 Jazz Keyboard Techniques I 3 (3,0,0,0)**

Continuation of skills from MUS 111 with an emphasis on pop, jazz, and contemporary piano styles.

Prerequisite: MUS 111.

**MUS 256 Jazz Keyboard Techniques II 3 (3,0,0,0)**

Continuation of MUS 255. Emphasis on improvisation, composition, and performance with rhythm section.

Prerequisite: MUS 255.

**MUS 260B Studio Session Procedures 3 (3,0,0,0)**

A course in recording studio production developed as a real-world case study. Students participate in a semester-long project creating a commercial-release quality recording of a musical group. The entire process from preparation through mastering is involved. Studio etiquette, management, and artist psychology are also demonstrated. Up to 9 hours outside of scheduled class time may be required.

Prerequisite: MUS 232 with a grade of C- or higher.

**MUS 262B Urban Music Production 3 (3,0,0,0)**

Focuses on techniques used in creating Hip-Hop, Rap, Contemporary R&B, and related styles of music. Examples of devices used (may vary) include ProTools, Logic, Reason, NI Komplete and Maschine, Akai MPC2000, and vintage and current synthesizers and samplers.

Prerequisite: MUS 232 with a grade of C- or higher.

**MUS 281B Business of Music II 3 (3,0,0,0)**

A continuation of MUS 181. Topics include starting a record label, recording budgets, record royalties, audits, legal agreements, and the future of the recording and music industry.

Prerequisite: MUS 181.

**MUS 285B Advanced Recording Techniques 3 (3,0,0,0)**

A continuation of MUS 232. Emphasis on hands-on recording projects, digital multitrack recording, hard-disk editing, and mix-down techniques.

Prerequisite: MUS 232.

**MUS 291 Legal Aspects of the Music Industry 3 (3,0,0,0)**

This course consists of three core topics: Personal Management, Music Publishing, and the Recording Industry. The legal focus will draw primarily from the experience in the states where most of the relevant statutes exist, and where many of the pertinent judicial and administrative decisions are made. All relevant aspects of Nevada and Federal Copyright law are also covered. The basic structure of industry contracts and income flow will be examined from both the artist and company perspectives; procedural aspects of this course include discussion of various approaches to contract negotiations.

Prerequisite: MUS 281 with a grade of C- or higher.

**MUS 292 Audio Post-Production I 3 (3,0,0,0)**

An introduction to the technological and artistic applications of audio used for visual media. This course covers the basics of sound elements, audio formats, "digital conversions", and strategies employed to address all of these. Topics and source materials experienced may include sound effect libraries, production music libraries and scored music, sound editing, on-location ("field") audio, ADR, OMF files, "pre-dubs", and 5.1 surround sound.

Prerequisite: Prerequisite: MUS 240.



## Music – Private Instruction

### **MUSA 101 Bass – Lower Division 1 (0,0,0,0.5)**

Private instruction in Bass for music majors. Students will study repertoire, scales, and technical etudes commensurate with standards established for first semester music majors. Required: performance on MUS 100 Recital Attendance and jury at the end of the semester.

### **MUSA 102 Bass II 1 (0,0,0,0.5)**

Private instruction in Bass for music majors. Students will study repertoire, scales, and technical etudes commensurate with standards established for second semester music majors. Required: performance on MUS 100 Recital Attendance and jury at the end of the semester.

Prerequisite: MUSA 101.

### **MUSA 103 Bassoon – Lower Division 1 (0,0,0,0.5)**

Private instruction in Bassoon for music majors. Students will study repertoire, scales, and technical etudes commensurate with standards established for first semester music majors. Required: performance on MUS 100 Recital Attendance and jury at the end of the semester.

### **MUSA 104 Bassoon II 1 (0,0,0,0.5)**

Private instruction in Bassoon for music majors. Students will study repertoire, scales, and technical etudes commensurate with standards established for second semester music majors. Required: performance on MUS 100 Recital Attendance and jury at the end of the semester.

Prerequisite: MUSA 103.

### **MUSA 105 Cello – Lower Division 1 (0,0,0,0.5)**

Private instruction in Cello for music majors. Students will study repertoire, scales, and technical etudes commensurate with standards established for first semester music majors. Required: performance on MUS 100 Recital Attendance and jury at the end of the semester.

### **MUSA 106 Cello II 1 (0,0,0,0.5)**

Private instruction in Cello for music majors. Students will study repertoire, scales, and technical etudes commensurate with standards established for second semester music majors. Required: performance on MUS 100 Recital Attendance and jury at the end of the semester.

Prerequisite: MUSA 105.

### **MUSA 107 Clarinet – Lower Division 1 (0,0,0,0.5)**

Private instruction in Clarinet for music majors. Students will study repertoire, scales, and technical etudes commensurate with standards established for first semester music majors. Required: performance on MUS 100 Recital Attendance and jury at the end of the semester.

### **MUSA 108 Clarinet II 1 (0,0,0,0.5)**

Private instruction in Clarinet for music majors. Students will study repertoire, scales, and technical etudes commensurate with standards established for second semester music majors. Required: performance on MUS 100 Recital Attendance and jury at the end of the semester.

Prerequisite: MUSA 107.

### **MUSA 109 Drum Set – Lower Division 1 (0,0,0,0.5)**

Private instruction in Drum Set for music majors. Students will study repertoire, scales, and technical etudes commensurate with standards established for first semester music majors. Required: performance on MUS 100 Recital Attendance and jury at the end of the semester.

### **MUSA 110 Drum Set II 1 (0,0,0,0.5)**

Private instruction in Drum Set for music majors. Students will study repertoire, scales, and technical etudes commensurate with standards established for second semester music majors. Required: performance on MUS 100 Recital Attendance and jury at the end of the semester.

Prerequisite: MUSA 109.

### **MUSA 111 Euphonium - Lower Division 1 (0,0,0,0.5)**

Private instruction in Euphonium for music majors. Students will study repertoire, scales, and technical etudes commensurate with standards established for first semester music majors. Required: performance on MUS 100 Recital Attendance and jury at the end of the semester.

### **MUSA 112 Euphonium II 1 (0,0,0,0.5)**

Private instruction in Euphonium for music majors. Students will study repertoire, scales, and technical etudes commensurate with standards established for second semester music majors. Required: performance on MUS 100 Recital Attendance and jury at the end of the semester.

Prerequisite: MUSA 111.

### **MUSA 113 Flute – Lower Division 1 (0,0,0,0.5)**

Private instruction in Flute for music majors. Students will study repertoire, scales, and technical etudes commensurate with standards established for first semester music majors. Required: performance on MUS 100 Recital Attendance and jury at the end of the semester.

### **MUSA 114 Flute II 1 (0,0,0,0.5)**

Private instruction in Flute for music majors. Students will study repertoire, scales, and technical etudes commensurate with standards established for second semester music majors. Required: performance on MUS 100 Recital Attendance and jury at the end of the semester.

Prerequisite: MUSA 113.



**MUSA 115 Guitar – Lower Division 1 (0,0,0,0.5)**

Private instruction in Guitar for music majors. Students will study repertoire, scales, and technical etudes commensurate with standards established for first semester music majors. Required: performance on MUS 100 Recital Attendance and jury at the end of the semester.

**MUSA 116 Guitar II 1 (0,0,0,0.5)**

Private instruction in Guitar for music majors. Students will study repertoire, scales, and technical etudes commensurate with standards established for second semester music majors. Required: performance on MUS 100 Recital Attendance and jury at the end of the semester.

Prerequisite: MUSA 115.

**MUSA 117 Harp – Lower Division 1 (0,0,0,0.5)**

Private instruction in Harp for music majors. Students will study repertoire, scales, and technical etudes commensurate with standards established for first semester music majors. Required: performance on MUS 100 Recital Attendance and jury at the end of the semester.

**MUSA 118 Harp II 1 (0,0,0,0.5)**

Private instruction in Harp for music majors. Students will study repertoire, scales, and technical etudes commensurate with standards established for second semester music majors. Required: performance on MUS 100 Recital Attendance and jury at the end of the semester.

Prerequisite: MUSA 117.

**MUSA 121 Horn – Lower Division 1 (0,0,0,0.5)**

Private instruction in Horn for music majors. Students will study repertoire, scales, and technical etudes commensurate with standards established for first semester music majors. Required: performance on MUS 100 Recital Attendance and jury at the end of the semester.

**MUSA 122 Horn II 1 (0,0,0,0.5)**

Private instruction in Horn for music majors. Students will study repertoire, scales, and technical etudes commensurate with standards established for second semester music majors. Required: performance on MUS 100 Recital Attendance and jury at the end of the semester.

Prerequisite: MUSA 121.

**MUSA 123 Oboe – Lower Division 1 (0,0,0,0.5)**

Private instruction in Oboe for music majors. Students will study repertoire, scales, and technical etudes commensurate with standards established for first semester music majors. Required: performance on MUS 100 Recital Attendance and jury at the end of the semester.

**MUSA 124 Oboe II 1 (0,0,0,0.5)**

Private instruction in Oboe for music majors. Students will study repertoire, scales, and technical etudes commensurate with standards established for second semester music majors. Required: performance on MUS 100 Recital Attendance and jury at the end of the semester.

Prerequisite: MUSA 123.

**MUSA 127 Percussion – Lower Division 1 (0,0,0,0.5)**

Private instruction in Percussion for music majors. Students will study repertoire, scales, and technical etudes commensurate with standards established for first semester music majors. Required: performance on MUS 100 Recital Attendance and jury at the end of the semester.

**MUSA 128 Percussion II 1 (0,0,0,0.5)**

Private instruction in Percussion for music majors. Students will study repertoire, scales, and technical etudes commensurate with standards established for second semester music majors. Required: performance on MUS 100 Recital Attendance and jury at the end of the semester.

Prerequisite: MUSA 127.

**MUSA 129 Piano – Lower Division 1 (0,0,0,0.5)**

Private instruction in Piano for music majors. Students will study repertoire, scales, and technical etudes commensurate with standards established for first semester music majors. Required: performance on MUS 100 Recital Attendance and jury at the end of the semester.

**MUSA 130 Piano II 1 (0,0,0,0.5)**

Private instruction in Piano for music majors. Students will study repertoire, scales, and technical etudes commensurate with standards established for second semester music majors. Required: performance on MUS 100 Recital Attendance and jury at the end of the semester.

Prerequisite: MUSA 129.

**MUSA 131 Saxophone – Lower Division 1 (0,0,0,0.5)**

Private instruction in Saxophone for music majors. Students will study repertoire, scales, and technical etudes commensurate with standards established for first semester music majors. Required: performance on MUS 100 Recital Attendance and jury at the end of the semester.

**MUSA 132 Saxophone II 1 (0,0,0,0.5)**

Private instruction in Saxophone for music majors. Students will study repertoire, scales, and technical etudes commensurate with standards established for second semester music majors. Required: performance on MUS 100 Recital Attendance and jury at the end of the semester.

Prerequisite: MUSA 131.



**MUSA 133 Synthesizer/MIDI - Lower Division 1 (0,0,0,0.5)**

Private instruction in Synthesizer/MIDI for music majors. Students will study repertoire, scales, and technical etudes commensurate with standards established for first semester music majors. Required: performance on MUS 100 Recital Attendance and jury at the end of the semester.

**MUSA 134 Synthesizer/MIDI II 1 (0,0,0,0.5)**

Private instruction in Synthesizer/MIDI for music majors. Students will study repertoire, scales, and technical etudes commensurate with standards established for second semester music majors. Required: performance on MUS 100 Recital Attendance and jury at the end of the semester.

Prerequisite: MUSA 133.

**MUSA 135 Trombone - Lower Division 1 (0,0,0,0.5)**

Private instruction in Trombone for music majors. Students will study repertoire, scales, and technical etudes commensurate with standards established for first semester music majors. Required: performance on MUS 100 Recital Attendance and jury at the end of the semester.

**MUSA 136 Trombone II 1 (0,0,0,0.5)**

Private instruction in Trombone for music majors. Students will study repertoire, scales, and technical etudes commensurate with standards established for second semester music majors. Required: performance on MUS 100 Recital Attendance and jury at the end of the semester.

Prerequisite: MUSA 135.

**MUSA 137 Trumpet - Lower Division 1 (0,0,0,0.5)**

Private instruction in Trumpet for music majors. Students will study repertoire, scales, and technical etudes commensurate with standards established for first semester music majors. Required: performance on MUS 100 Recital Attendance and jury at the end of the semester.

**MUSA 138 Trumpet II 1 (0,0,0,0.5)**

Private instruction in Trumpet for music majors. Students will study repertoire, scales, and technical etudes commensurate with standards established for second semester music majors. Required: performance on MUS 100 Recital Attendance and jury at the end of the semester.

Prerequisite: MUSA 137.

**MUSA 139 Tuba - Lower Division 1 (0,0,0,0.5)**

Private instruction in Tuba for music majors. Students will study repertoire, scales, and technical etudes commensurate with standards established for first semester music majors. Required: performance on MUS 100 Recital Attendance and jury at the end of the semester.

**MUSA 140 Tuba II 1 (0,0,0,0.5)**

Private instruction in Tuba for music majors. Students will study repertoire, scales, and technical etudes commensurate with standards established for second semester music majors. Required: performance on MUS 100 Recital Attendance and jury at the end of the semester.

Prerequisite: MUSA 139.

**MUSA 141 Viola - Lower Division 1 (0,0,0,0.5)**

Private instruction in Viola for music majors. Students will study repertoire, scales, and technical etudes commensurate with standards established for first semester music majors. Required: performance on MUS 100 Recital Attendance and jury at the end of the semester.

**MUSA 142 Viola II 1 (0,0,0,0.5)**

Private instruction in Viola for music majors. Students will study repertoire, scales, and technical etudes commensurate with standards established for second semester music majors. Required: performance on MUS 100 Recital Attendance and jury at the end of the semester.

Prerequisite: MUSA 141.

**MUSA 143 Violin - Lower Division 1 (0,0,0,0.5)**

Private instruction in Violin for music majors. Students will study repertoire, scales, and technical etudes commensurate with standards established for first semester music majors. Required: performance on MUS 100 Recital Attendance and jury at the end of the semester.

**MUSA 144 Violin II 1 (0,0,0,0.5)**

Private instruction in Violin for music majors. Students will study repertoire, scales, and technical etudes commensurate with standards established for second semester music majors. Required: performance on MUS 100 Recital Attendance and jury at the end of the semester.

Prerequisite: MUSA 143.

**MUSA 145 Voice - Lower Division 1 (0,0,0,0.5)**

Private instruction in Voice for music majors. Students will study repertoire, scales, and technical etudes commensurate with standards established for first semester music majors. Required: performance on MUS 100 Recital Attendance and jury at the end of the semester.

**MUSA 146 Voice II 1 (0,0,0,0.5)**

Private instruction in Voice for music majors. Students will study repertoire, scales, and technical etudes commensurate with standards established for second semester music majors. Required: performance on MUS 100 Recital Attendance and jury at the end of the semester.

Prerequisite: MUSA 145.



<b>MUSA 151</b>	<b>Bass for Non-Majors</b>	<b>1 (0,0,0,0.5)</b>	<b>MUSA 167</b>	<b>Synthesizer/MIDI for Non-Majors</b>	<b>1 (0,0,0,0.5)</b>
	Private instruction in Bass for non-majors. May be repeated for credit.			Private instruction in Synthesizer/MIDI for non-majors. May be repeated for credit.	
<b>MUSA 152</b>	<b>Bassoon for Non-Majors</b>	<b>1 (0,0,0,0.5)</b>	<b>MUSA 168</b>	<b>Trombone for Non-Majors</b>	<b>1 (0,0,0,0.5)</b>
	Private instruction in Bassoon for non-majors. May be repeated for credit.			Private instruction in Trombone for non-majors. May be repeated for credit.	
<b>MUSA 153</b>	<b>Cello for Non-Majors</b>	<b>1 (0,0,0,0.5)</b>	<b>MUSA 169</b>	<b>Trumpet for Non-Majors</b>	<b>1 (0,0,0,0.5)</b>
	Private instruction in Cello for non-majors. May be repeated for credit.			Private instruction in Trumpet for non-majors. May be repeated for credit.	
<b>MUSA 154</b>	<b>Clarinet for Non-Majors</b>	<b>1 (0,0,0,0.5)</b>	<b>MUSA 170</b>	<b>Tuba for Non-Majors</b>	<b>1 (0,0,0,0.5)</b>
	Private instruction in Clarinet for non-majors. May be repeated for credit.			Private instruction in Tuba for non-majors. May be repeated for credit.	
<b>MUSA 155</b>	<b>Drum Set for Non-Majors</b>	<b>1 (0,0,0,0.5)</b>	<b>MUSA 171</b>	<b>Viola for Non-Majors</b>	<b>1 (0,0,0,0.5)</b>
	Private instruction in Drum Set for non-majors. May be repeated for credit.			Private instruction in Viola for non-majors. May be repeated for credit.	
<b>MUSA 156</b>	<b>Euphonium for Non-Majors</b>	<b>1 (0,0,0,0.5)</b>	<b>MUSA 172</b>	<b>Violin for Non-Majors</b>	<b>1 (0,0,0,0.5)</b>
	Private instruction in Euphonium for non-majors. May be repeated for credit.			Private instruction in Violin for non-majors. May be repeated for credit.	
<b>MUSA 157</b>	<b>Flute for Non-Majors</b>	<b>1 (0,0,0,0.5)</b>	<b>MUSA 173</b>	<b>Voice for Non-Majors</b>	<b>1 (0,0,0,0.5)</b>
	Private instruction in Flute for non-majors. May be repeated for credit.			Private instruction in Voice for non-majors. May be repeated for 4 times for credit for a maximum of 4 credits. Prerequisite: Audition required.	
<b>MUSA 158</b>	<b>Guitar for Non-Majors</b>	<b>1 (0,0,0,0.5)</b>	<b>MUSA 201</b>	<b>Bass III</b>	<b>1 (0,0,0,0.5)</b>
	Private instruction in Guitar for non-majors. May be repeated for credit.			Private instruction in Bass for music majors. Students will study repertoire, scales, and technical etudes commensurate with standards established for third semester music majors. Required: performance on MUS 100 Recital Attendance and jury at the end of the semester. Prerequisite: MUSA 102.	
<b>MUSA 159</b>	<b>Harp for Non-Majors</b>	<b>1 (0,0,0,0.5)</b>	<b>MUSA 202</b>	<b>Bass IV</b>	<b>1 (0,0,0,0.5)</b>
	Private instruction in Harp for non-majors. May be repeated for credit.			Private instruction in Bass for music majors. Students will study repertoire, scales, and technical etudes commensurate with standards established for fourth semester music majors. Required: performance on MUS 100 Recital Attendance and jury at the end of the semester. Prerequisite: MUSA 201.	
<b>MUSA 161</b>	<b>Horn for Non-Majors</b>	<b>1 (0,0,0,0.5)</b>	<b>MUSA 203</b>	<b>Bassoon III</b>	<b>1 (0,0,0,0.5)</b>
	Private instruction in Horn for non-majors. May be repeated for credit.			Private instruction in Bassoon for music majors. Students will study repertoire, scales, and technical etudes commensurate with standards established for third semester music majors. Required: performance on MUS 100 Recital Attendance and jury at the end of the semester. Prerequisite: MUSA 104.	
<b>MUSA 162</b>	<b>Oboe for Non-Majors</b>	<b>1 (0,0,0,0.5)</b>			
	Private instruction in Oboe for non-majors. May be repeated for credit.				
<b>MUSA 164</b>	<b>Percussion for Non-Majors</b>	<b>1 (0,0,0,0.5)</b>			
	Private instruction in Percussion for non-majors. May be repeated for credit.				
<b>MUSA 165</b>	<b>Piano for Non-Majors</b>	<b>1 (0,0,0,0.5)</b>			
	Private instruction in Piano for non-majors. May be repeated for credit.				
<b>MUSA 166</b>	<b>Saxophone for Non-Majors</b>	<b>1 (0,0,0,0.5)</b>			
	Private instruction in Saxophone for non-majors. May be repeated for credit.				



**MUSA 204 Bassoon IV 1 (0,0,0,0.5)**

Private instruction in Bassoon for music majors. Students will study repertoire, scales, and technical etudes commensurate with standards established for fourth semester music majors. Required: performance on MUS 100 Recital Attendance and jury at the end of the semester.

Prerequisite: MUSA 203.

**MUSA 205 Cello III 1 (0,0,0,0.5)**

Private instruction in Cello for music majors. Students will study repertoire, scales, and technical etudes commensurate with standards established for third semester music majors. Required: performance on MUS 100 Recital Attendance and jury at the end of the semester.

Prerequisite: MUSA 106.

**MUSA 206 Cello IV 1 (0,0,0,0.5)**

Private instruction in Cello for music majors. Students will study repertoire, scales, and technical etudes commensurate with standards established for fourth semester music majors. Required: performance on MUS 100 Recital Attendance and jury at the end of the semester.

Prerequisite: MUSA 205.

**MUSA 207 Clarinet III 1 (0,0,0,0.5)**

Private instruction in Clarinet for music majors. Students will study repertoire, scales, and technical etudes commensurate with standards established for third semester music majors. Required: performance on MUS 100 Recital Attendance and jury at the end of the semester.

Prerequisite: MUSA 108.

**MUSA 208 Clarinet IV 1 (0,0,0,0.5)**

Private instruction in Clarinet for music majors. Students will study repertoire, scales, and technical etudes commensurate with standards established for fourth semester music majors. Required: performance on MUS 100 Recital Attendance and jury at the end of the semester.

Prerequisite: MUSA 207.

**MUSA 209 Drum Set III 1 (0,0,0,0.5)**

Private instruction in Drum Set for music majors. Students will study repertoire, scales, and technical etudes commensurate with standards established for third semester music majors. Required: performance on MUS 100 Recital Attendance and jury at the end of the semester.

Prerequisite: MUSA 110.

**MUSA 210 Drum Set IV 1 (0,0,0,0.5)**

Private instruction in Drum Set for music majors. Students will study repertoire, scales, and technical etudes commensurate with standards established for fourth semester music majors. Required: performance on MUS 100 Recital Attendance and jury at the end of the semester.

Prerequisite: MUSA 209.

**MUSA 211 Euphonium III 1 (0,0,0,0.5)**

Private instruction in Euphonium for music majors. Students will study repertoire, scales, and technical etudes commensurate with standards established for third semester music majors. Required: performance on MUS 100 Recital Attendance and jury at the end of the semester.

Prerequisite: MUSA 112.

**MUSA 212 Euphonium IV 1 (0,0,0,0.5)**

Private instruction in Euphonium for music majors. Students will study repertoire, scales, and technical etudes commensurate with standards established for fourth semester music majors. Required: performance on MUS 100 Recital Attendance and jury at the end of the semester.

Prerequisite: MUSA 211.

**MUSA 213 Flute III 1 (0,0,0,0.5)**

Private instruction in Flute for music majors. Students will study repertoire, scales, and technical etudes commensurate with standards established for third semester music majors. Required: performance on MUS 100 Recital Attendance and jury at the end of the semester.

Prerequisite: MUSA 114.

**MUSA 214 Flute IV 1 (0,0,0,0.5)**

Private instruction in Flute for music majors. Students will study repertoire, scales, and technical etudes commensurate with standards established for fourth semester music majors. Required: performance on MUS 100 Recital Attendance and jury at the end of the semester.

Prerequisite: MUSA 213.

**MUSA 215 Guitar III 1 (0,0,0,0.5)**

Private instruction in Guitar for music majors. Students will study repertoire, scales, and technical etudes commensurate with standards established for third semester music majors. Required: performance on MUS 100 Recital Attendance and jury at the end of the semester.

Prerequisite: MUSA 116.

**MUSA 216 Guitar IV 1 (0,0,0,0.5)**

Private instruction in Guitar for music majors. Students will study repertoire, scales, and technical etudes commensurate with standards established for fourth semester music majors. Required: performance on MUS 100 Recital Attendance and jury at the end of the semester.

Prerequisite: MUSA 215.

**MUSA 217 Harp III 1 (0,0,0,0.5)**

Private instruction in Harp for music majors. Students will study repertoire, scales, and technical etudes commensurate with standards established for third semester music majors. Required: performance on MUS 100 Recital Attendance and jury at the end of the semester.

Prerequisite: MUSA 118.





**MUSA 218 Harp IV 1 (0,0,0,0.5)**

Private instruction in Harp for music majors. Students will study repertoire, scales, and technical etudes commensurate with standards established for fourth semester music majors. Required: performance on MUS 100 Recital Attendance and jury at the end of the semester.

Prerequisite: MUSA 217.

**MUSA 221 Horn III 1 (0,0,0,0.5)**

Private instruction in Horn for music majors. Students will study repertoire, scales, and technical etudes commensurate with standards established for third semester music majors. Required: performance on MUS 100 Recital Attendance and jury at the end of the semester.

Prerequisite: MUSA 122.

**MUSA 222 Horn IV 1 (0,0,0,0.5)**

Private instruction in Horn for music majors. Students will study repertoire, scales, and technical etudes commensurate with standards established for fourth semester music majors. Required: performance on MUS 100 Recital Attendance and jury at the end of the semester.

Prerequisite: MUSA 221.

**MUSA 223 Oboe III 1 (0,0,0,0.5)**

Private instruction in Oboe for music majors. Students will study repertoire, scales, and technical etudes commensurate with standards established for third semester music majors. Required: performance on MUS 100 Recital Attendance and jury at the end of the semester.

Prerequisite: MUSA 124.

**MUSA 224 Oboe IV 1 (0,0,0,0.5)**

Private instruction in Oboe for music majors. Students will study repertoire, scales, and technical etudes commensurate with standards established for fourth semester music majors. Required: performance on MUS 100 Recital Attendance and jury at the end of the semester.

Prerequisite: MUSA 223.

**MUSA 227 Percussion III 1 (0,0,0,0.5)**

Private instruction in Percussion for music majors. Students will study repertoire, scales, and technical etudes commensurate with standards established for third semester music majors. Required: performance on MUS 100 Recital Attendance and jury at the end of the semester.

Prerequisite: MUSA 128.

**MUSA 228 Percussion IV 1 (0,0,0,0.5)**

Private instruction in Percussion for music majors. Students will study repertoire, scales, and technical etudes commensurate with standards established for fourth semester music majors. Required: performance on MUS 100 Recital Attendance and jury at the end of the semester.

Prerequisite: MUSA 227.

**MUSA 229 Piano III 1 (0,0,0,0.5)**

Private instruction in Piano for music majors. Students will study repertoire, scales, and technical etudes commensurate with standards established for third semester music majors. Required: performance on MUS 100 Recital Attendance and jury at the end of the semester.

Prerequisite: MUSA 130.

**MUSA 230 Piano IV 1 (0,0,0,0.5)**

Private instruction in Piano for music majors. Students will study repertoire, scales, and technical etudes commensurate with standards established for fourth semester music majors. Required: performance on MUS 100 Recital Attendance and jury at the end of the semester.

Prerequisite: MUSA 229.

**MUSA 231 Saxophone III 1 (0,0,0,0.5)**

Private instruction in Saxophone for music majors. Students will study repertoire, scales, and technical etudes commensurate with standards established for third semester music majors. Required: performance on MUS 100 Recital Attendance and jury at the end of the semester.

Prerequisite: MUSA 132.

**MUSA 232 Saxophone IV 1 (0,0,0,0.5)**

Private instruction in Saxophone for music majors. Students will study repertoire, scales, and technical etudes commensurate with standards established for fourth semester music majors. Required: performance on MUS 100 Recital Attendance and jury at the end of the semester.

Prerequisite: MUSA 231.

**MUSA 233 Synthesizer/MIDI III 1 (0,0,0,0.5)**

Private instruction in Synthesizer/MIDI for music majors. Students will study repertoire, scales, and technical etudes commensurate with standards established for third semester music majors. Required: performance on MUS 100 Recital Attendance and jury at the end of the semester.

Prerequisite: MUSA 134.

**MUSA 234 Synthesizer/MIDI IV 1 (0,0,0,0.5)**

Private instruction in Synthesizer/MIDI for music majors. Students will study repertoire, scales, and technical etudes commensurate with standards established for fourth semester music majors. Required: performance on MUS 100 Recital Attendance and jury at the end of the semester.

Prerequisite: MUSA 233.



**MUSA 235 Trombone III 1 (0,0,0,0.5)**

Private instruction in Trombone for music majors. Students will study repertoire, scales, and technical etudes commensurate with standards established for third semester music majors. Required: performance on MUS 100 Recital Attendance and jury at the end of the semester.

Prerequisite: MUSA 136.

**MUSA 236 Trombone IV 1 (0,0,0,0.5)**

Private instruction in Trombone for music majors. Students will study repertoire, scales, and technical etudes commensurate with standards established for fourth semester music majors. Required: performance on MUS 100 Recital Attendance and jury at the end of the semester.

Prerequisite: MUSA 235.

**MUSA 237 Trumpet III 1 (0,0,0,0.5)**

Private instruction in Trumpet for music majors. Students will study repertoire, scales, and technical etudes commensurate with standards established for third semester music majors. Required: performance on MUS 100 Recital Attendance and jury at the end of the semester.

Prerequisite: MUSA 138.

**MUSA 238 Trumpet IV 1 (0,0,0,0.5)**

Private instruction in Trumpet for music majors. Students will study repertoire, scales, and technical etudes commensurate with standards established for fourth semester music majors. Required: performance on MUS 100 Recital Attendance and jury at the end of the semester.

Prerequisite: MUSA 237.

**MUSA 239 Tuba III 1 (0,0,0,0.5)**

Private instruction in Tuba for music majors. Students will study repertoire, scales, and technical etudes commensurate with standards established for third semester music majors. Required: performance on MUS 100 Recital Attendance and jury at the end of the semester.

Prerequisite: MUSA 140.

**MUSA 240 Tuba IV 1 (0,0,0,0.5)**

Private instruction in Tuba for music majors. Students will study repertoire, scales, and technical etudes commensurate with standards established for fourth semester music majors. Required: performance on MUS 100 Recital Attendance and jury at the end of the semester.

Prerequisite: MUSA 239.

**MUSA 241 Viola III 1 (0,0,0,0.5)**

Private instruction in Viola for music majors. Students will study repertoire, scales, and technical etudes commensurate with standards established for third semester music majors. Required: performance on MUS 100 Recital Attendance and jury at the end of the semester.

Prerequisite: MUSA 142.

**MUSA 242 Viola IV 1 (0,0,0,0.5)**

Private instruction in Viola for music majors. Students will study repertoire, scales, and technical etudes commensurate with standards established for fourth semester music majors. Required: performance on MUS 100 Recital Attendance and jury at the end of the semester.

Prerequisite: MUSA 241.

**MUSA 243 Violin III 1 (0,0,0,0.5)**

Private instruction in Violin for music majors. Students will study repertoire, scales, and technical etudes commensurate with standards established for third semester music majors. Required: performance on MUS 100 Recital Attendance and jury at the end of the semester.

Prerequisite: MUSA 144.

**MUSA 244 Violin IV 1 (0,0,0,0.5)**

Private instruction in Violin for music majors. Students will study repertoire, scales, and technical etudes commensurate with standards established for fourth semester music majors. Required: performance on MUS 100 Recital Attendance and jury at the end of the semester.

Prerequisite: MUSA 243.

**MUSA 245 Voice III 1 (0,0,0,0.5)**

Private instruction in Voice for music majors. Students will study repertoire, scales, and technical etudes commensurate with standards established for third semester music majors. Required: performance on MUS 100 Recital Attendance and jury at the end of the semester.

Prerequisite: MUSA 146.

**MUSA 246 Voice IV 1 (0,0,0,0.5)**

Private instruction in Voice for music majors. Students will study repertoire, scales, and technical etudes commensurate with standards established for fourth semester music majors. Required: performance on MUS 100 Recital Attendance and jury at the end of the semester.

Prerequisite: MUSA 245.

**Music – Performance****MUSE 101 Concert Choir 1 (1,2.5,0,0)**

Study and performance of representative choral music, sacred and secular, from the major musical types and historical movements. May be repeated for credit.



**MUSE 103 Chamber Chorale 1 (1,2.5,0,0)**

This ensemble will study and perform literature from the Renaissance time period as well as other chamber music compositions. May be repeated up to six times for credit.

**MUSE 111 Concert Band 1 (1,2.5,0,0)**

This instrumental ensemble will rehearse and perform music composed for the concert band and military band genres. Open to all advanced musicians with previous band experience. May be repeated up to ten times for credit.

**MUSE 121 Symphony Orchestra 1 (1,2.5,0,0)**

Rehearsal and performance of orchestral music of all periods. Required participation of scheduled performances. Audition required. May be repeated for credit.

**MUSE 131 Jazz Ensemble 1 (1,2.5,0,0)**

Performance ensemble will perform standard and new big band Jazz literature. Emphasis on sight-reading, improvisation, and ensemble playing. Consistent attendance and participation in public performances mandatory. May be repeated for credit.

Prerequisite: Admission by audition only. Limited to instrumentalists.

**MUSE 133 Jazz Combo 1 (1,2.5,0,0)**

Exploration and performance of small group jazz literature with improvisation. May be repeated for credit.

**MUSE 135 Jazz Vocal Ensemble 1 (1,2.5,0,0)**

Explores a variety of musical styles including pop, rock, and jazz by a lively performing group. May be repeated up to six times for credit.

**MUSE 141 Woodwind Ensemble 1 (1,2.5,0,0)**

Emphasis on woodwind literature from all periods. Open to college woodwind players, including saxophones, through audition or instructor approval. May be repeated six times for credit.

**MUSE 146 Brass Ensemble 1 (1,2.5,0,0)**

Emphasis on brass literature from all periods. Open to college brass players through audition or instructor approval. May be repeated six times for credit.

**MUSE 161 Percussion Ensemble 1 (1,2.5,0,0)**

A percussion ensemble performing musical repertoire varying from classical to jazz and pop selections. Audition required. May be repeated for credit.

**MUSE 165 Steel Drum Band 1 (1,2.5,0,0)**

A performance-based class intended to provide the student with a general knowledge in the art of playing steel drums and percussion instruments related to the steel drum band.

**MUSE 166 Mariachi Band 1 (1,2.5,0,0)**

This performance-based course provides students with knowledge of the Mariachi music art form, with emphasis on traditional and contemporary Mariachi literature including the Son, Ranchera, Huapango, and Bolero song styles. Prior experience is required. May be repeated up to six times for credit.

**Natural Resources and Environmental Science****NRES 210 Environmental Pollution 3(3,0,0,0)**

The introduction and study of pollution and the Federal and State environmental laws covering EPA, DOT, CAA, CWA, SDWA, CERCLA, RCRA, SARA, and OSHA regulations which apply to hazardous materials, substances, and hazardous wastes.

Prerequisite: ENV 101.

**Nursing****NURS 040 In-Facilities Nursing Assistant 3 (2,0,3,0)**

Integration of knowledge and skills which focuses on the role of the nursing assistant in caring for non-critical patients. Successful completion fulfills requirements for eligibility to write the Certified Nursing Assistant examination. This course is taught only in health care facilities. Registration must be through facility where course is taught.

**NURS 090 Tools for Nursing Success 1.5 (1.5,0,0,0)**

Course is a brief introduction to nursing math through all four semesters, and to nursing process and writing care plans. Course open to all that have had acceptance into the Nursing Program.

**NURS 101 Introduction to Professional Nursing Practice 6 (3,3,6,0)**

Introduction to the practice of professional nursing focusing on nursing concepts and skills while providing nursing care to promote adaptation of middle and elderly clients in a variety of settings.

Prerequisite: Admission to ADN program.

**NURS 115 Medical-Surgical Nursing I 6.5 (3.5,1.5,7.5,0)**

Focuses on the role of the professional nurse in supporting and promoting optimal adaptation of the adult medical-surgical client in acute care settings.

Prerequisite: NURS 101 and 125; and BIOL 224.

**NURS 125 Pharmacology for Nursing Practice 2 (2,0,0,0)**

Integrates basic pharmacology with nursing practice. Covers drug actions, side effects, interactions, pharmacokinetics, and dosage and calculations.

Prerequisite: Admission into the ADN program.



**NURS 130 Nursing Assistant 6 (3,3,6,0)**

Integration of knowledge and skills focusing on the role of the nursing assistant in caring for non-critical patients in skilled nursing facilities.

Prerequisite: A satisfactory score on the Accuplacer Reading Placement test; or a grade of C or higher in ENG 100 or 101 or 113.

**NURS 134B Nursing Assistant Instructor Development 1 (1,0,0,0)**

Required by Nevada State Board of Nursing, this course reviews State and Federal regulations, model curriculum, course content, and laboratory and clinical skills.

**NURS 205 Introduction to Associate Degree Nursing 4.5 (3,1.5,4,0)**

Facilitates transition from LPN to professional nursing role in promoting optimal adaptation of the adult client within the community and acute care settings.

Prerequisite: Admission to ADN program and LPN licensed in Nevada.

**NURS 208 Professional Topics: Management Concepts and Transition into Professional Practice 3.5 (3.5,0,0,0)**

This course introduces the nursing student to basic management/leadership concepts as well as prepares the nursing student to assume and assimilate the role and the responsibilities of the professional nurse.

Prerequisite: NURS 247 and 248.

**NURS 211 Medical-Surgical Nursing II 4.5 (2.25,0.75,6,0)**

Focuses on the role of the professional nurse in supporting and promoting optimal adaptation of adult medical-surgical clients experiencing complex, multi-system dysfunction in acute critical and special care units and community settings.

Prerequisite: NURS 247 and 248.

**NURS 240B RN Refresher Course (Theory/Lab) 2.5 (2,1.5,0,0)**

Assists inactive professional nurses to update their knowledge and skills in order to renew their licensure. This is the first course of a two-course series.

**NURS 242B RN Refresher Course (Clinical) 2.5 (0,0,0,7.5)**

This is the second course of a two-course series designed to assist inactive professional nurses to update their knowledge and skills in order to renew their licensure. The student will be assigned to clinical practice under the supervision of an RN preceptor. Graded Pass/Fail.

Prerequisite: NURS 240B.

**NURS 243 Mental Health Nursing 3 (1.5,0,4.5,0)**

Focuses on the role of the professional nurse in supporting and promoting adaptive coping responses for clients and their families in mental health and other clinical settings. APs take NURS 125B and NURS 205 concurrently.

Prerequisite: NURS NURS 101 and 125B; and BIOL 224.

**NURS 247 Maternal-Newborn Nursing 3 (2,0,1,0)**

Focuses on the role of the professional nurse in supporting and promoting adaptation of the child-bearing family during antepartum, intrapartum and postpartum periods.

Prerequisite: NURS 115 or 205; and 243; and BIOL 251.

**NURS 248 Pediatric Nursing 3 (2,0,3,0)**

Focuses on the role of the professional nurse in supporting and promoting adaptive coping responses for pediatric clients and their families in a variety of settings.

Prerequisite: NURS 115 or 205; and 243; and BIOL 251.

**NURS 285 Selected Topics in Nursing 0.5-6 (0.5-6,0,0,0)**

Selected nursing topics offered for specific needs of nursing students or community nurses.

Prerequisite: Nursing Program Director approval.

**NURS 296 Nursing Management and Preceptorship 2.5 (0,0,7.5,0)**

With guidance of a nursing preceptorship, this clinical practicum focuses on role transition from student to professional graduate nurse in the nursing management of client care. Graded Pass/Fail.

Corequisite: NURS 208 and 211.

**Nutrition****NUTR 121 Human Nutrition 3 (3,0,0,0)**

Description of the nature and role of carbohydrates, lipids, proteins, water, vitamins and minerals in the human body. Energy relationships and various controversies in nutrition are examined, as well as relationships between nutrition, health and disease. (Same as BIOL 121.)

**Ophthalmic Technology****OPHT 102B Introduction to Contact Lenses 3 (3,0,0,0)**

Overview of instruments pertaining to the fitting of contact lenses; keratometer, biomicroscope, radioscope, diameter gauge, thickness gauge as well as others. Studies will emphasize the care and handling of rigid and soft contact lenses as well as their history.



**OPHT 105B Introduction to Contact Lens Lab 1 (0,3,0,0)**

Practical application of contact lens fitting procedures as presented in OPHT 102B. Topics include, but are not limited to: keratometry, slit-lamp evaluations, over-refractions, depth perception, color perception, strabismus assessment, and insertion and removal training.

Corequisite: OPHT 102B.

**OPHT 112B Anatomy and Physiology of the Eye and Related Structures 3 (3,0,0,0)**

Designed to give the student an insight into the anatomical structure of the eye and its adnexa. The student will learn the function of the parts of the eye as they relate to vision and the fitting of contact lenses. The student will be presented with common pathologies of the eye and ocular pharmacology.

**OPHT 115B Introduction to Ophthalmic Tech 3 (3,0,0,0)**

Introduction to the profession of ophthalmic technology, the roles and responsibilities of the ophthalmic technician and organizations involved in the profession with emphasis on medical/legal issues, ethics and medical economics.

**OPHT 121B Ophthalmic Optics I 5 (3,6,0,0)**

History and development and manufacture of ophthalmic materials, including current industry standards. Single vision and multifocal lenses including spherical, spherocylinder and prism lenses, as well as formulae used in lens design, construction and function. Current lens catalogs are used for information and data.

**OPHT 123B Ophthalmic Optics II 5 (3,6,0,0)**

Studies of multifocal lens design and construction, including bifocals, trifocals, double segment lenses, progressive and blended lenses. Lens tints, coatings, colors, filters, occupational and sport lenses will be discussed. Formulae pertinent to lens functions will be covered as well.

**OPHT 125B Ophthalmic Optics III 3 (3,0,0,0)**

Principles of basic and ophthalmic optics including optical principles of light, lenses and the human eye.

**OPHT 130B Ophthalmic Procedures I 3 (2,3,0,0)**

Principles and techniques of ophthalmic procedures including visual acuity measurement, lensometry, tonometry, depth perception, fusion, pupillary evaluation, history taking and color vision. Care, maintenance, calibration of instrumentation and inventory control are included.

**OPHT 155B Geometric Optics 3 (3,0,0,0)**

Principles of basic and advanced optics including optical principles of light lenses, prisms and mirrors. This is a course in optical physics.

**OPHT 160B Clinical Applications I 3 (0,0,12,0)**

Introductory clinical experience designed to apply skills acquired in previous course work. Experience designed to give the student an introduction to, and observation of, the ophthalmic office/hospital setting.

**OPHT 161B Ophthalmic Seminar 1 (1,0,0,0)**

Lecture/discussion of clinical issues and experiences with emphasis on case studies, role playing and problem solving techniques.

**OPHT 201B Ophthalmic Dispensing I 5 (3,8,0,0)**

Introduction to ophthalmic dispensing skills. Patient/client measurements, frame and lens material selection, prescription analysis and adjustment techniques will be covered. The student will develop basic lensometry skills using a manual lensometer. Students will learn and apply current ophthalmic A.N.S.I. standards. The student will learn the formulas and terminology pertinent to ophthalmic dispensing.

**OPHT 202B Contact Lenses I 3 (3,0,0,0)**

Continuation of OPHT 102B. Specialty lenses will be covered, including bifocals, torque, keratoconus as well as therapeutic lenses. Overview of all contact lens-related equipment. Students will also cover various over-refraction techniques.

**OPHT 203B Contact Lenses II 1 (0,3,0,0)**

Practical application of contact lens fitting procedures. Topics include modifications of contact lenses, over-refraction of contact lenses, corneal photography and problem solving techniques. Students will use case studies as well as each other to gain fitting experience.

**OPHT 220B Theory of Refractometry 3 (3,0,0,0)**

The course will cover pre-testing procedures. Identify various ophthalmic equipment and identify the procedures of the objective and subjective refraction.

**OPHT 223B Ophthalmic Dispensing II 5 (3,0,8,0)**

Continuation of clinical dispensing procedures, with emphasis on unusual and complex problems, including aphakia and various eye disorders.

**OPHT 228B Ocular Pharmacology and Diseases of the Eye 4 (4,0,0,0)**

Principles and concepts of pharmacology with emphasis on ocular pharmacology. Terminology, abbreviations, identification, delivery systems, actions and effects of commonly used drugs, as well as related legal issues of pharmacology are included. Pathological conditions of the eye are discussed including basic characteristics of common external, internal, and systemic diseases of the eye, ocular emergencies and management.



**OPHT 232B Opticianry Management Sales 3 (3,0,0,0)**

Presentation of basic principles of present day ophthalmic dispensing practices. Emphasis will be on patient communication, costs, both inventory and laboratory and computer skills, as well as general bookkeeping skills and associated dispensing practice procedures. Salesmanship and business ethics will be covered.

**OPHT 235B Ophthalmic Surgical Assistant 2 (2,0,0,0)**

Fundamentals and practice of microbial control, control of infection, prevention of contamination in the medical facility, safe handling of equipment and supplies, hand-washing technique, maintaining aseptic fields and assisting the physician in common office surgical procedures.

**OPHT 237B Ophthalmic Clinical Management 3 (3,0,0,0)**

Current diagnosis and treatment of ocular diseases and the technician's role in caring for pre- and post-operative patients. Basic and practical microbiology as it relates to the diagnosis, treatment and management of ocular diseases.

**OPHT 238B Ophthalmic Applied Diagnostic Studies 3 (3,0,0,0)**

Advanced diagnostic testing including ocular motility testing, potential acuity meter, ultrasonography, endothelial cell analysis, corneal topography, ophthalmic photography and electrophysiology.

**OPHT 250B Clinical Applications II 3 (0,0,12,0)**

Advanced clinical experience designed to apply skills acquired in previous course work. Emphasis is placed on contact lenses and surgical assisting,

**OPHT 251B Clinical Applications Seminar 1 (1,0,0,0)**

Discussion of clinical issues and experiences with emphasis on case studies, role playing and problem solving techniques.

**OPHT 260B Introduction to Low Vision 1 (1,0,0,0)**

Introduction to low vision dispensing skills for the optician. Topics include, but are not limited to: patient/client needs assessment, low vision aid/device selection, patient usage training, patient follow up visitations and resource services.

**OPHT 291B Clinical Applications III 3 (0,0,12,0)**

Clinical experience designed to apply skills acquired in previous course work. Experience designed to give the student an introduction to and observation of the ophthalmic dispensing office.

**OPHT 299B Certificate Review 2 (2,0,0,0)**

Review course for national and state competency examinations. This course may be taken up to three times: American Board of Opticianry Certification exam review, National Contact Lens Examiners certification review, and Nevada State Board of Dispensing Opticians exam review.

**Physical Education****PEX 126 Intermediate Soccer 1 (0,0,0,3)**

The Intermediate Soccer course is designed to teach and develop the skills required to compete in intercollegiate soccer.

Prerequisite: Instructor approval.

**PEX 129 Volleyball 1 (0,0,0,3)**

This is a beginning level volleyball course. It will introduce all of the fundamentals of play including passing, setting, serving, spiking, defense techniques, rules of play, and offensive strategies. This class is open to students of all levels of proficiency.

**PEX 129A Volleyball 1 (0,0,0,3)**

This course follows PEX 129. It is an intermediate/advanced level open volleyball course that reviews all of the fundamentals of volleyball through game play.

Prerequisite: PEX 129 or Instructor approval.

**PEX 180 Strength Training 1 (0,0,0,3)**

Introductory course that gives students a beginning knowledge of machine weights and free weights. Skeletal and muscle anatomy are introduced and the students are shown how they are affected by resistance and weight training. Provides introduction on how to stay healthy throughout one's life.

Prerequisite: Instructor approval.

**PEX 184 Conditioning, Intercollegiate Athletics 1 (0,0,0,3)**

Intermediate conditioning course designed to prepare students to participate in intercollegiate athletics.

Prerequisite: Instructor approval.

**PEX 186 Intercollegiate Baseball 1 (0,0,0,3)**

The Intercollegiate Baseball course is for first year students' competitive semester participating on the intercollegiate baseball team. The course is designed to teach and develop the skills required to compete in intercollegiate baseball.

Prerequisite: Instructor approval.

**PEX 193 Intercollegiate Soccer 1 (0,0,0,3)**

The Intercollegiate Soccer course is for first year students' competitive semester participating on the intercollegiate soccer team. The course is designed to teach and develop the skills required to compete in intercollegiate soccer.

Prerequisite: Instructor approval.

**PEX 194 Intercollegiate Softball 1 (0,0,0,3)**

The Intercollegiate Softball course is for first year students' competitive semester participating on the intercollegiate softball team. The course is designed to teach and develop the skills required to compete in intercollegiate softball.

Prerequisite: Instructor approval.



**PEX 198 Intercollegiate Volleyball 1-2 (0,0,0,3)**

The Intercollegiate Volleyball course is for first year students' competitive semester participating on the intercollegiate volleyball team. The course is designed to teach and develop the required skills to compete in intercollegiate volleyball.

Prerequisite: Instructor approval.

**PEX 214 Intermediate Softball 1 (0,0,0,3)**

The Intermediate Softball course is designed to teach and develop the skills required to compete in intercollegiate softball.

Prerequisite: Instructor approval.

**PEX 215 Intermediate Volleyball 1 (0,0,0,3)**

The Intermediate Volleyball course is designed to teach and develop the skills required to compete in intercollegiate volleyball.

Prerequisite: Instructor approval.

**PEX 216 Intermediate Baseball 1 (0,0,0,3)**

Baseball course designed to teach and develop the skills required to compete in intercollegiate baseball.

Prerequisite: Instructor approval.

**PEX 226 Advanced Soccer 1 (0,0,0,3)**

The Advanced Soccer course is designed to teach and develop advanced skills required to compete in intercollegiate soccer.

**PEX 230 Intermediate Intercollegiate Volleyball 1 (0,0,0,3)**

The Intermediate Intercollegiate Volleyball course is for second year students' competitive semester participating on the intercollegiate volleyball team. This course is designed to further develop the skills required to compete in intercollegiate volleyball.

Prerequisite: Instructor approval.

**PEX 234 Advanced Softball 1 (0,0,0,3)**

The Advanced Softball course is designed to teach and develop advanced skills, philosophies, and knowledge acquired in intercollegiate softball.

Prerequisite: Instructor approval.

**PEX 235 Advanced Volleyball 1 (0,0,0,3)**

The Advanced Volleyball course is designed to teach and develop advanced skills required to compete in intercollegiate volleyball.

Prerequisite: Instructor approval.

**PEX 246 Advanced Baseball 1 (0,0,0,3)**

An advanced baseball course designed to teach and develop advanced skills, philosophies and knowledge required to compete in intercollegiate baseball.

Prerequisite: Instructor approval.

**PEX 280 Advanced Strength Training 1 (0,0,0,3)**

This course gives students knowledge of advanced lifting techniques on weight machines and free weights. Students will learn how skeletal and muscle anatomy are affected by different lifting practices. Course provides constructive nutrition plans.

Prerequisite: Instructor approval.

**PEX 284 Intermediate Conditioning, Intercollegiate Athletics 1 (0,0,0,3)**

Advanced conditioning course designed to prepare students to participate in intercollegiate athletics

Prerequisite: Instructor approval.

**PEX 286 Intermediate Intercollegiate Baseball 1 (0,0,0,3)**

The Intermediate Intercollegiate Baseball course is for second year students' competitive semester participating on the intercollegiate baseball team. This course is designed to further develop the skills required to compete in intercollegiate baseball.

Prerequisite: Instructor approval.

**PEX 293 Intermediate Collegiate Soccer 1 (0,0,0,3)**

The Intermediate Intercollegiate Soccer course is for second year students' competitive semester participating on the intercollegiate soccer team. This course is designed to further develop the skills required to compete in intercollegiate soccer.

Prerequisite: Instructor approval.

**PEX 294 Intermediate Intercollegiate Softball 1 (0,0,0,3)**

The Intermediate Intercollegiate Softball course is for second year students' competitive semester participating on the intercollegiate softball team. This course is designed to further develop the skills required to compete in intercollegiate softball.

Prerequisite: Instructor approval.

## Pharmacy Technician

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**PHAR 100B Introduction to Pharmacy Practice 3 (3,0,0,0)**

To provide an overview of the pharmacy profession and the roles of the pharmacist and the pharmacy technician. Topics include profession evolution, pharmacy law and ethics, professional standards, pharmacy operations, professionalism, and employment.

Prerequisite: Admission to the Pharmacy Technician Program.

**PHAR 101B Pharmacy Techniques 4 (2,6,0,0)**

To provide an overview of pharmaceutical preparation and compounding techniques. Topics including dosage forms, facilities and equipment, aseptic technique, quality control, and record keeping.

Prerequisite: Admission to the Pharmacy Technician Program.



**PHAR 105B Pharmaceutical Math for Technicians 3 (3,0,0,0)**

A practical approach to pharmaceutical math calculations designed to provide students with the skills, training, and techniques necessary for successful comprehension and mastery of relevant pharmaceutical computations.

Prerequisite: Admission to the Pharmacy Technician Program.

**PHAR 110B Pharmacology I 3 (3,0,0,0)**

An overview of the pharmacokinetics between the body systems and particular classes of drugs. Introduces a framework of knowledge and principles about the classifications, purposes, side effects, cautions and interactions of medications.

Prerequisite: Admission to the Pharmacy Technician Program.

**PHAR 115B Pharmacology II 3 (3,0,0,0)**

This course is designed to provide an advanced study of the pharmacological framework. Topics include therapeutic utility, drug classifications, drug actions, side effects, contraindications, and interactions.

Prerequisite: PHAR 110B.

**PHAR 120B Pharmacy Microcomputers 2 (1,2,0,0)**

A computer-based laboratory course designed to introduce students to the fundamentals of computer and database applications unique to pharmacy practice settings.

Prerequisite: PHAR 101B.

**PHAR 126B Pharmacy Technician Practicum 7 (0,0,21,0)**

This course is designed to provide students with on-site supervised experiential training in a regional pharmacy. The focus of this training will be on the role and responsibilities of Pharmacy Technicians; to include professionalism, prescription processing, customer service, and pharmacy operations.

Prerequisite: PHAR 101B and 105B and 110B all with a grade of C or higher.

## Philosophy

**PHIL 101 Introduction to Philosophy 3 (3,0,0,0)**

A study of philosophy as an interpretation of human experience and an examination of concepts and assumptions fundamental in human thought.

**PHIL 101H Introduction to Philosophy - Honors 3 (3,0,0,0)**

An Honors-level study of philosophy as an interpretation of human experience and an examination of concepts and assumptions fundamental in human thought. Honors emphasizes both interactive and independent learning entailing an in-depth examination of one's thinking on philosophical questions through use of the Socratic Method. Courses with "H" suffixes are designated Honors-level courses and can be used to fulfill equivalent general education requirements.

Prerequisite: Admission to the Honors program.

**PHIL 102 Critical Thinking and Reasoning 3 (3,0,0,0)**

Introduction to the analysis and evaluation of actual arguments, to the practice of constructing logically sound arguments, and to logic as the theory of argument. Emphasizes arguments of current or general interest.

**PHIL 102H Critical Thinking and Reasoning - Honors 3 (3,0,0,0)**

An honors level course in reasoning and argumentation through the analysis and evaluation of actual arguments, the construction of logically sound arguments, and an honors level understanding of the theory of reasoning and argumentation. Honors emphasizes both interactive and independent student mastery of critical thinking entailing a deeper analysis and evaluation of reasoning and arguments found in a wide range of print and electronic sources. Courses with "H" suffixes are designated Honors level courses and can be used to fulfill equivalent general education requirements. This course can fulfill the Analytic Reasoning portion of the requirements.

Prerequisite: Admission to the Honors program.

**PHIL 114 Introduction to Symbolic Logic 3 (3,0,0,0)**

Introduces principles of correct reasoning, using modern symbolic techniques of the propositional calculus and simple quantification theory.

**PHIL 115 Philosophy of Death and Dying 3 (3,0,0,0)**

A philosophical study of concepts and theories surrounding death and dying. The course will examine different philosophical and/or cultural attitudes and beliefs concerning issues such as, but not limited to, preparation for death, fear of death, immortality, grief and commemoration of the dead.

**PHIL 119 Introduction to the Old Testament 3 (3,0,0,0)**

General survey of the books of the Old Testament from a non-denominational perspective. Covers the history, ideas and theological beliefs of Biblical Israel and deals with those themes in the light of archeological research and literary criticism.

**PHIL 124 Philosophical Traditions of Asia 3 (3,0,0,0)**

Study of the nature of self, mind, knowledge, truth, logic, and related themes characteristic of India, China, Japan, or any other Asian country.

**PHIL 129 Introduction to the New Testament 3 (3,0,0,0)**

This course surveys New Testament books from a nondenominational perspective. Literary criticism and historical background are considered.





**PHIL 131 Introduction to Metaphysics 3 (3,0,0,0)**

Selected problems concerning human nature and reality, e.g., mind and body, freedom and determinism, space and time, God, causality.

**PHIL 135 Introduction to Ethics 3 (3,0,0,0)**

A course designed to introduce students to the theory and practice of ethics. In the context of classical theories and modern moral problems, students will be encouraged to clarify their own ethical positions.

**PHIL 201 Philosophy Goes to the Movies 3 (3,0,0,0)**

Introduction to philosophical problems in ethics, politics, law, aesthetics, metaphysics, or knowledge through film and literary materials in addition to standard philosophical texts.

**PHIL 202 Introduction to Philosophy of the Arts 3 (3,0,0,0)**

Varieties of artistic representation and expression, the relationship of artworks to their embodiments, and the nature of interpretation and aesthetic response.

**PHIL 203 Survey of Existentialism 3 (3,0,0,0)**

A survey of the various influences and responses which led to existential thought. Readings from Kierkegaard, Sartre, Nietzsche and Buber will be emphasized.

**PHIL 205 Science and Religion 3 (3,0,0,0)**

Selected problems and episodes in the interaction between science and religion, such as the seventeenth century condemnation of Galileo, the eighteenth century controversy about natural religion, and the recent creation/evolution debate in the United States.

**PHIL 207 Social and Political Philosophy 3 (3,0,0,0)**

Major political philosophers, e.g., Plato, Aristotle, Machiavelli, Hobbes, Rousseau, Mill, and Marx, on topics such as justice, freedom, equality, tyranny, war, racism, sexism, power, consent, and economics.

**PHIL 210 World Religions 3 (3,0,0,0)**

A critical introduction to the nature of religion. The major moral and religious views of Hinduism, Buddhism, Taoism, Confucianism, Judaism, Christianity and Islam will be studied.

**PHIL 211 Introduction to Ancient Philosophy 3 (3,0,0,0)**

A broad survey of ancient philosophy from the pre-Socratics to the later Hellenistic schools, with emphasis on Plato, Aristotle, Neoplatonism and recurring themes.

**PHIL 215 Introduction to Philosophy of Religion 3 (3,0,0,0)**

An introductory philosophical examination of some claims and problems within the Western tradition including, but not limited to, the nature of God, arguments for the existence of God, the problem of evil, divine foreknowledge and human freedom, arguments for/against personal immortality, and faith/reason as alternative avenues to belief.

**PHIL 216 Philosophy of Human Nature 3 (3,0,0,0)**

This course explores a variety of traditions on what human nature is. We will study both Western and Eastern religious concepts, classical and modern philosophical theories, and scientific theories and models of human nature.

**PHIL 217 Introduction to the Study of Marxism 3 (3,0,0,0)**

Exploration of the fundamental concepts of the views of Karl Marx as well as other historical and contemporary Marxist thinkers.

**PHIL 244 Bioethics 3 (3,0,0,0)**

Treatments of such issues as abortion and euthanasia, cloning, genetic screening, just health care, patients' rights, the use of human and animal subjects in research.

**PHIL 245 Contemporary Moral Issues 3 (3,0,0,0)**

Introduction to ethics by way of such current issues as war and atrocity, the purpose of the university, racism, women's liberation, violence and aggression, the notions of happiness and success, or ethics of ecology.

**PHIL 246 Philosophy of Law 3 (3,0,0,0)**

Study of the meaning of law, particularly legal reasoning, positive and normative functions of law, and the nature of justice. Such legal theorists as Plato, Aquinas, Hobbes, Kant, Hegel, Hart, and Dworkin will be studied.

**PHIL 247 Philosophy and Women 3 (3,0,0,0)**

Variety of philosophical writings by or about women, from Plato to the present, focusing on such key concepts as nature, equality, dignity, freedom, love, and self-realization; may include feminist critiques of the Western philosophical tradition. (Same as WMST 247.)

**PHIL 249 Environmental Ethics 3 (3,0,0,0)**

Explores fundamental concepts of human moral obligations towards other living things and natural systems. Topics include the rights of animals and new candidates for an adequate environmental ethic.

**PHIL 295 Topical Issues in Philosophy 1-3 (1-3,0,0,0)**

The topic will vary; however, the intent is to develop awareness of, and appreciation for, certain philosophers and/or issues. May be repeated to six credits.



**PHIL 302 Intermediate Reasoning and Critical Thinking 3 (3,0,0,0)**

Designed to extend the theory and practice of reasoned argument by the analysis, evaluation, reconstruction, and construction of extended examples drawn from such fields as philosophy, literature, religion, natural and social sciences, the arts, or contemporary affairs.

Prerequisite: Admission to any Bachelor of Science, Bachelor of Applied Science, Bachelor of Arts degree program or Instructor approval.

**PHIL 311 Professional Ethics 3 (3,0,0,0)**

A study of the nature of ethical thinking and its application to judgments about actions of people that make up society. Topics to be considered include ethical relativism, moral virtues and vices, foundations of morality, alternative theoretical perspectives on moral judgment egoism, altruism, and legal and regulatory perspectives related to ethics in business.

Prerequisite: Admission to any Bachelor of Science, Bachelor of Applied Science, Bachelor of Arts degree program or Instructor approval.

## Photography

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**PHO 101B Beginning Photography 3 (2,2,0,0)**

Fundamental techniques and use of photographic equipment using digital capture. Includes history of photography, its language and major styles, camera handling, exposure, basic image adjustments using digital software, image printing and presentation. Special emphasis on Digital Asset Management.

**PHO 102B Digital Photographic Imaging I 3 (2,2,0,0)**

Introduction to basic digital image manipulation via layers, layer masks, color correction, and retouching. Scans of film and prints along with digital captures will be used. Students must be familiar with computer navigation, and saving files to portable hard drives and various disks. Students are encouraged to take this class simultaneously with PHO 101B.

**PHO 103B Introduction to Lighting 3 (2,2,0,0)**

Introduces students to basic photographic lighting principles covering the use of quartz-halogen lights, on-camera flash, and studio strobes for product and portrait photographs. A critical approach to imagery will be emphasized.

Prerequisite: PHO 101B.

**PHO 106B The Art of Visual Persuasion 3 (2,2,0,0)**

This course offers practical analysis of persuasive imagery as it is used to advertise products. Students will produce effective visual campaigns drawing on compositional and psychological techniques to evoke intended responses from targeted viewers. Through the study of both contemporary and historical ads, students will determine what makes them so powerful and will adapt those principles to create fictional advertisements for a wide range of markets.

Prerequisite: PHO 101B and 102B.

**PHO 107B Psychology of Photography 3 (2,2,0,0)**

Explores photography and visual media from a psychological perspective. Examines photography through analysis of perception, personality, self-image, and emotional awareness and expression. This introductory class has been designed as an interdisciplinary approach to photography and psychology, and will benefit those with experience in either area. Basic photographic skills will be used in practical exercises/assignments. A limited number of cameras will be available for checkout.

Prerequisite: PHO 101B.

**PHO 109B Adobe Photoshop Lightroom Bootcamp 1 (0.5,2,0,0)**

This 5-session tutorial class is for the beginning student who wishes to learn the essentials of this photo editing software program. It is highly recommended students take this course that are enrolled in or plan to take PHO 101B. Students need to have their own camera card reader, access to a camera that is capable of capturing photos in RAW format and be familiar with computers. Basic computer and photography knowledge is recommended.

**PHO 112B Digital Photographic Imaging II 3 (2,2,0,0)**

In this course students will extensively test the capabilities of their digital cameras. Current trends, techniques, workflows, and equipment in digital photography will be studied. Printing to specialty inkjet papers and mastering output to commercial photo labs will be covered.

Prerequisite: PHO 102B; or GRC 183B; or Instructor approval.

**PHO 116B Introduction to Photojournalism 3 (2,2,0,0)**

The practical application of academic principles and technical skills of photojournalism. Emphasis on ethical considerations and journalistic real world experiences and assignments.

Prerequisite: PHO 103B.

**PHO 120B Experimental Lighting 3 (2,2,0,0)**

The exploration of still life and portrait photography using alternative lighting techniques and styles, ranging from candlelight to enhance refractive modifiers, and dramatic variations of painting with light in the studio and on location.

Prerequisite: PHO 103B or Instructor approval.



**PHO 125B Photographic Composition and Design 2 (1,2,0,0)**

Compositional and design elements specific to photographic processes. Academic principles related to technical, commercial, and creative composition with practical application.

**PHO 128B Night Photography I 3 (2,2,0,0)**

This course will explore the art of creating dramatic nighttime images, including star trails, moonlit landscapes, nightlife, and neon signage. Creative, commercial, scenic and basic astrophotographic applications will be covered.

Prerequisite: PHO 101B.

**PHO 131B Splash! 3 (2,2,0,0)**

In this course students will learn studio and natural lighting techniques while exploring the physical energetic dynamics and creative possibilities of photographing liquid splashes, spills, pours, sprays, and droplets. Emphasis is on constructing simple studio and location sets to achieve semi-repeatable visual styles and creative results.

Prerequisite: PHO 103B.

**PHO 136B Las Vegas Document 3 (2,2,0,0)**

In this class the student will explore Las Vegas through the lens of the camera. The student will go on weekly group shoots to iconic locations around Las Vegas. The student will create, maintain and update their own personal blog and contribute to the class blog as well as Social Media outlets over the semester.

**PHO 138B Prime Document 3 (2,2,0,0)**

In this class, the student will photograph with one body and one prime lens (fixed focal length lens, no zooms) for an entire semester. The student will explore Las Vegas with weekly shoots, focusing on people, cityscapes, and the juxtaposition of life. Work will be shared using current online trends such as blogging, Tumblr and Flickr.

**PHO 141B Introduction to Forensic Photography 4 (2,4,0,0)**

Introduction into practical control of crime scenes and their documentation photographically as evidence. Emphasis on the admissibility of photography into the chain of evidence.

Prerequisite: PHO 101B.

**PHO 154B Digital Photography for the Novice I 3 (2,2,0,0)**

This course is an introduction to the mechanics and use of traditional photographic language applied to the digital format. It will cover digital image capture, image downloading to computer, downsizing images, emailing, and posting them to the web. This class is a very BASIC class meant for people new to digital technology.

**PHO 155B Digital Photography for the Novice II 3 (2,2,0,0)**

This course is an intermediate course designed to manipulate and fine tune pictures through Photoshop.

Prerequisite: PHO 154B.

**PHO 156B Digital Photography for the Creative Mind I 3 (2,2,0,0)**

This course is an introduction to the mechanics and use of digital technology to create and/or manipulate images into more artistic pieces. This class is very basic and meant for students new to digital technology. This course provides a fun learning experience that allows the student to experiment and use their imagination.

**PHO 158B Photoshop for the Creative Mind 4 (2,4,0,0)**

The main goal of this course is to leverage Photoshop as a tool for creating unprecedented uniquely enhanced photographic artwork specific to the student's personal creative style and expression. The course will cover creative methods, functions, and tools of Photoshop for ground-breaking results.

**PHO 160B Digital Photography for the Creative Mind II 4 (2,4,0,0)**

This course is an advanced exploration into the mechanics and use of digital technology to create fine art pieces. In this class, the student will enjoy creative license and full use of her/his imagination. This class is an advanced class for those students already familiar with traditional and digital photography, as well as digital technology, i.e., hardware and software.

**PHO 165B Photographic Presentations 3 (2,2,0,0)**

Introduction to commercial presentation of photographic art. Emphasis is placed on current trends, web to traditional outlets, framing, matting, and placement of photographic art for salability from the commercial to the fine art worlds.

**PHO 166B History of Photography 3 (3,0,0,0)**

Development of photography as an aesthetic medium from its invention to the present time in America and Europe.

**PHO 178B Wedding Photography 3 (2,2,0,0)**

This course focuses on essential techniques for composing and photographing weddings in various settings. Digital workflow and customary business practices will also be addressed. An emphasis on effective human relations in all aspects of client service will enhance the chances for student success in this challenging field.

Prerequisite: PHO 103B.

**PHO 180B Creative Photography I 3 (2,2,0,0)**

A practical, analytical, and critical approach to creative color and black and white photography. Emphasis on creative image exposure and creative digital darkroom processes.

Prerequisite: PHO 103B.



**PHO 181B Creative Photography II 3 (2,2,0,0)**

This course deals with creating unusual and non-traditional photographic images through the use of toy cameras, darkroom manipulation, and theme interpretation.

Prerequisite: PHO 180.

**PHO 182B Alternative Photographic Processes 3 (2,2,0,0)**

Introduction into non-traditional and historical photographic processes. Emphasis is placed primarily on non-silver techniques, processes, and large format Polaroid image and emulsion transfers.

Prerequisite: PHO 103B.

**PHO 183B Sports and Entertainment Photography 3 (2,2,0,0)**

Learn the basics of this exciting specialty area including boxing matches, concerts, shows, clubs, and celebrities. This course will feature several location shoots at major venues in Las Vegas.

Prerequisite: PHO 103B.

**PHO 186B Photographing the Heritage of the West 3 (2,2,0,0)**

A field course with classroom critiques focusing on locating, interpreting and effectively photographing natural and cultural resources found in the Southwestern United States. Film, digital, or hybrid approaches can be used to shoot various stock and magazine type assignments.

Prerequisite: PHO 101B.

**PHO 188B Nature Photography 4 (2,4,0,0)**

The study of nature photography with an emphasis on biological and geological studies and specimens. All film formats are applied to field photography studies. Field trips are scheduled with participation required.

Prerequisite: PHO 101B.

**PHO 189B Contemporary Scenic Photography 3 (2,2,0,0)**

Instruction in the creation of visionary scenic images. This course focuses on cutting-edge techniques used in scenic photography (including HDR and panoramic imaging) and offers insightful examination of methods for producing work that expresses the beauty of the real world we experience. There will be optional weekend field trips offered.

Prerequisite: PHO 101B.

**PHO 190B Landscape Photography 3 (2,2,0,0)**

Learn to work in the style of the master landscape photographers. Heavy emphasis on Zone System work. There will be several weekend field trips into the southwest region where students will have the opportunity to create fine art quality prints for exhibition.

Prerequisite: PHO 101B.

**PHO 195 Photographic Lighting 4 (2,4,0,0)**

Introduction to control and modification of natural light and studio applications of quartz and electronic flash lighting equipment. Commercial/illustration, portrait, and photojournalistic applications stressed.

Prerequisite: PHO 103B.

**PHO 200 Color Photography I 3 (2,2,0,0)**

This course covers color in the digital world, from capture to print; from psychology to calibration. Students will learn to use color and produce accurate exhibition quality prints.

Prerequisite: PHO 103B.

**PHO 203B Photo Bookmaking Process 3 (2,2,0,0)**

For many artists, the handmade book occupies a spot near the top of the food chain of creative self-expression. In this course, photographers will learn how to create a photographic book that best reflects your imagery for both self-promotion and commercial applications.

Prerequisite: PHO 101B.

**PHO 206B Nature Photography 3 (2,1,0,0)**

The study of nature photography with an emphasis on biological and geological studies and specimens. Learn close up techniques, panorama, HDR, and wildlife photography. There will also be a gallery exhibition. Field trips are scheduled with participation required.

Prerequisite: PHO 103B.

**PHO 208B Large Format Photography I 3 (2,2,0,0)**

Introduction to large format camera and how it is used in a commercial environment with an emphasis on in-camera focus and perspective corrections. Students will be provided with large format view cameras to use in the studio and on location.

Prerequisite: PHO 195.

**PHO 209B Large Format Photography II 3 (2,2,0,0)**

Advanced techniques in the use of view cameras. Includes both field and studio applications and extends the introductory course to new creative directions.

Prerequisite: PHO 208B.

**PHO 210B Architectural Photography 3 (2,2,0,0)**

Learn the art of creating exciting images of both exteriors and interiors.

Prerequisite: PHO 195.

**PHO 211B Editorial Photography 3 (2,2,0,0)**

Students will be introduced to editorial photography with an emphasis on illustrating story ideas. Interpretation of assignments and location portrait lighting will be covered. Students will be given a variety of assignments taken from actual editorial photographers.

Prerequisite: PHO 103B.



**PHO 212B Food Photography and Styling I 4 (2,4,0,0)**

This course is designed to introduce students to the fundamentals of prepping and photographing food for various layouts.

Prerequisite: PHO 195.

**PHO 225 Photographic Commercial/Illustration I 3 (2,2,0,0)**

Students will assume the role of a commercial photographer and complete weekly assignments from wide variety of subjects. Topics covered will include subject setup and lighting for food, automotive and architectural interior photography among others.

Prerequisite: PHO 195.

**PHO 228B Motion Bootcamp 1 (2,2,0,0)**

This 5-session bootcamp covers the introductory essentials of accessing and utilizing Motion (part of Apple's Final Cut Studio package of programs). Not for the beginner, student must be skilled in Final Cut Pro.

Prerequisite: VID 115B.

**PHO 231B Video for Photographers 3 (2,1,0,0)**

This basic course teaches still photographers to use the video/motion features of their camera, properly set up the camera for video recording, download the footage into video editing software, and create short videos. Students learn basic film grammar and techniques for recording sound, lighting, and recording. Students enrolling in this course need to have access to their own camera that records HD video.

Prerequisite: PHO 101B and 102B.

**PHO 233B Digital Portrait Enhancement 3 (2,2,0,0)**

This course will cover cosmetic retouching, glamour enhancement, retouching with large group photographs, digital body reshaping, and digital lighting enhancement.

Prerequisite: PHO 102B; or GRC 183B; or Instructor approval.

**PHO 235 Photographic Portraiture I 4 (2,4,0,0)**

Explores photographing people in a variety of environments. Students will study, practice, and produce portrait techniques of individuals, couples, and various other groupings. Special emphasis will be placed on creating professional caliber images suitable for portrait studio sales. All images created will be printed and mounted according to portrait industry standards.

Prerequisite: PHO 195.

**PHO 237B Photographic Portraiture II 3 (2,2,0,0)**

This course expands on the knowledge of portraiture by creating new ways of seeing and photographing people. Current trends and styles of portrait photography will be covered.

Prerequisite: PHO 235.

**PHO 238B High School Senior Portraits 3 (2,2,0,0)**

This course is an introduction to Senior Portrait Photography. It will cover branding, style, trends, location scouting, posing, pricing, marketing, and social media.

Prerequisite: PHO 103B.

**PHO 239B Hollywood Glamour 3 (2,2,0,0)**

Study of the photographic techniques used by glamour photographers of the 1930s-1940s, including C. S. Bull and George Hurrell. Students will work with hot lights and learn Photoshop retouching methods in order to emulate the work of icon Hollywood photographers.

Prerequisite: PHO 195.

**PHO 241B Forensic Photography II 4 (2,4,0,0)**

Advanced level photo techniques to document crime scenes and prepare court quality presentations. Multiple flash night photography, biological evidence photo enhancement, alternate light sources, and more.

Prerequisite: PHO 141B.

**PHO 247B Fashion Photography 3 (2,2,0,0)**

This course is designed as an introductory course of the fundamentals of fashion photography for editorial and advertising purposes. It will encompass black and white and color negative, and transparency films. Studio and location lighting emphasized.

Prerequisite: PHO 195.

**PHO 251B Digital Photographic Imaging III 3 (2,2,0,0)**

In this course students will explore the newest trends and techniques in the fields of commercial and fine art photography, including advanced selection techniques and master printing philosophies. You will be exploring content, sequencing and presentation of your digital work.

Prerequisite: PHO 112B or Instructor approval.

**PHO 254B Big Digital 3 (2,2,0,0)**

This course will use medium format digital backs, Pro DSLRs and professional scanners to produce large digital files. Using these files, we will print to professional wide format printers.

Prerequisite: PHO 112B or Instructor approval.

**PHO 260B Photographic Business Practices 3 (3,0,0,0)**

Fundamental photographic business organization, funding and management, to include equipment, personnel, and advertising needs.

Prerequisite: PHO 195.



**PHO 262B Photographic Makeup 3 (2,2,0,0)**

This course provides instruction in basic elements of makeup for portraiture, glamour, fashion, wedding, and commercial photography using time tested methods and techniques in a creative hands-on environment.

Prerequisite: PHO 101B.

**PHO 265B Photographic Equipment and Set Construction 3 (2,2,0,0)**

Construction of basic photographic studio backgrounds, diffusion systems, props and equipment support systems. Simplified photographic set construction.

**PHO 270B Product Photography 3 (2,2,0,0)**

In this course students will learn advanced studio product lighting techniques, production, and professional digital workflow methods. Emphasis is on analyzing, refining, and perfecting commercial photograph lighting skills current in today's industry.

Prerequisite PHO 195.

**PHO 274B Night Photography II 3 (2,2,0,0)**

This course is an exploration of advanced photographic techniques used in low-light conditions with emphasis on digital techniques such as High Dynamic Range imaging, time-lapse photography, and image stacking techniques.

Prerequisite: PHO 128B.

**PHO 278 Art and Photography in 20th Century Mexico 3 (3,0,0,0)**

This course examines the contributions made by Mexican artists and photographers to twentieth century visual culture. The focus is on the "Mexican Renaissance" of the 1920s and 1930s: in particular, the revival of the fresco tradition and the effect it had on artistic production. Other topics include: the print tradition, easel painting, and the development of Mexican photography. (Same as ART 278.)

**PHO 279B Wedding Photography II 3 (2,2,0,0)**

Covers advanced lighting techniques for wedding photography emphasizing the creative use of off-camera strobes. Imaginative thematic content and contemporary techniques for posed and candid shots will be discussed. Engagement portraiture, image retouching, and effective methods for the presentation of the final images will be included. Digital asset management and marketing strategies will be addressed in-depth.

Prerequisite: PHO 178B.

**PHO 281B The Figure: Classic and Contemporary Images 4 (2,4,0,0)**

A self-driven course for advanced photo students that focuses on the study of the human form. Students will synthesize the unique styles of fine and photographic art to produce their own body of work, reflecting a personal vision and integrating the knowledge of the Old Masters as well as contemporary iconic photographers. The class includes modern perspectives such as Pin-Up and Commercial Advertising styles.

Prerequisite: PHO 235 and Instructor approval.

**PHO 285 Photographic Internship 3 (0,0,0,30)**

Student placement at a commercial photography job location. On-the-job experience performing work projects reflecting industry employee assignments. Academic credit earned, with or without wages. Enrollment by Instructor approval only.

**PHO 289B Special Topics for Photography 1-3 (0,3-9,0,0)**

Special topics related to photography. Topics will vary depending on student and industry demand. This course may be repeated up to a maximum of nine credits.

Prerequisite: Instructor approval.

**PHO 295B Portfolio 2 (2,0,0,0)**

In this course, the student works with the instructor guiding the student in the selection, editing, and execution of a portfolio of images for the student to use in a print, online, and other portfolio formats.

Prerequisite: PHO 225 and 235 and 260B.

## Physics

**PHYS 110 Conceptual Physics 4 (4,0,0,0)**

Introduction to fundamental concepts and principles of physics. Intended primarily for non-science majors. Integration of lecture and lab designed to satisfy the lab science general education requirement.

**PHYS 151 General Physics I 4 (3,3,0,0)**

General physics primarily for students in Arts and Science, medicine and agriculture. Includes study of mechanics, sound, and heat. A knowledge of right angle trigonometry is desired.

Prerequisite: C or higher in MATH 127 or 128 or 181.

**PHYS 152 General Physics II 4 (3,3,0,0)**

Continuation of PHYS 151. Covers optics, electromagnetism and some aspects of modern physics.

Prerequisite: PHYS 151.

**PHYS 180 Physics for Scientists and Engineers I 3 (3,0,0,0)**

Lecture in Newtonian mechanics. Covers rectilinear motion, particle dynamics, work and energy, momentum and collision, rotational mechanics, oscillations, wave motion, and gravitation. Note: Students should have successfully completed MATH 181 before taking this course.

Corequisite: PHYS 180L.

**PHYS 180L Physics for Scientists and Engineers Lab I 1 (0,3,0,0)**

Laboratory exercises in Newtonian mechanics. Covers rectilinear motion, particle dynamics, work and energy, momentum and collision, rotational mechanics, oscillations, wave motion, and gravitation. Note: Students should also be enrolled in PHYS 180 while taking this lab course.

Prerequisite: MATH 181 with a grade of C or higher.



**PHYS 181    Physics for Scientists and Engineers II                    3 (3,0,0,0)**

Lecture in electromagnetism, Coulomb's law, electric and magnetic fields, Gauss' law, potential, capacitance, current and resistance, electromotive force, inductance, motion of charged particles, introduction to Maxwell's equations and electromagnetic waves.

Corequisite: PHYS 181L.

**PHYS 181L    Physics for Scientists and Engineers Lab II                    1 (0,3,0,0)**

Laboratory exercises in electromagnetism. Covers Coulomb's law, electric and magnetic fields, Gauss' law, potential, capacitance, current and resistance, electromotive force, inductance, motion of charged particles, introduction to Maxwell's equations and electromagnetic waves.

Prerequisite: MATH 182 and PHYS 180 and 180L all with a grade of C or higher.

**PHYS 182    Physics for Scientists and Engineers III                    3 (3,0,0,0)**

Lecture in fluid mechanics, thermodynamics and optics. Covers sound, temperature and thermometry, heat, gases, intermolecular forces, kinetic theory, entropy, nature of light, geometrical optics, physical optics including diffraction and interference, introduction of modern developments.

Corequisite: PHYS 182L.

**PHYS 182L    Physics for Scientists and Engineers Lab III                    1 (0,3,0,0)**

Laboratory exercises in fluid mechanics, thermodynamics and optics. Covers sound, temperature and thermometry, heat, gases, intermolecular forces, kinetic theory, entropy, nature of light, geometrical optics, physical optics including diffraction and interference, introduction of modern developments.

Prerequisite: MATH 182 and PHYS 180 and 180L all with a grade of C or higher.

**Practical Nursing****PN 100L    Practical Nursing Learning Lab                    1 (0,3,0,0)**

A lab to promote student nurse success by applying study skills, time management, critical thinking, and organizational skills to current course load in a collaborative and caring environment.

Prerequisite: Admission to the PN program.

**PN 103B    Gerontological Health Care    2 (2,0,0,0)**

Designed to discuss the holistic aspects of aging and the increasing health needs of the older adult.

**PN 104B    Practical Nursing Fundamentals                    5 (3,3,3,0)**

Introduction into the role of the Licensed Practical Nurse, basic nursing concepts, the nursing process, legal and ethical responsibilities and communication. Applies basic nursing skills, mental health concepts, medication administration skills, calculation skills and legal and ethical responsibilities of the practical nurse in the care of the client with stable health care needs. Develops intravenous therapy skills. Clinical experience in long-term or sub-acute care setting.

Prerequisite: Acceptance into the Practical Nursing program.

**PN 105B    Practical Nursing I                    5 (3,3,3,0)**

Applies nursing skills, nursing process, therapeutic communication, mental health concepts, medication administration, calculation skills, and legal and ethical responsibilities of the Licensed Practical Nurse in the care of adults and older adults in the long-term care setting.

Prerequisite: Acceptance into the Practical Nursing program.

**PN 106B    Family Nursing                    3 (2,1.5,1.5,0)**

Emphasizes normal growth and development and prevention, promotion, and maintenance of health while providing family health care. Focus on child bearing, the neonate, infant and children through the growth years.

**PN 107B    Adult Health Nursing I    4.5 (2.5,3,3,0)**

Applies nursing skills, nursing process, therapeutic communication, mental health concepts, medication administration, calculation skills, and legal and ethical responsibilities of the practical nurse in the care of adults and older adults in the long-term care setting.

**PN 108B    Practical Nursing II                    4 (2,0,6,0)**

Applies nursing skills, nursing process, therapeutic communication, mental health concepts, medication administration, calculation skills, and legal and ethical responsibilities of the practical nurse in the care of adults and older adults in acute and ambulatory care settings.

**PN 109B    Adult Health Nursing II    4.5 (2.5,3,3,0)**

Applies nursing skills, nursing process, therapeutic communication, mental health concepts, medication administration, calculation skills, and legal and ethical responsibilities of the practical nurse in the care of adults and older adults in acute and ambulatory care settings.

**PN 110B    Practical Nursing Seminar/ Management Concepts                    4 (2,0,6,0)**

Emphasizes management concepts for the Licensed Practical Nurse, career opportunities and responsibilities as well as NCLEX-PN preparation. The clinical component includes a preceptorship.



**PN 111B Practical Nursing Leadership/Management 3 (3,0,0,0)**

The course emphasizes roles and responsibilities of the LPN in Nevada, transition from Military Medic/Corpsman to LPN, career opportunities, leadership and management concepts, and NCLEX-PN preparation.

**PN 125B Pharmacology for Practical Nursing Practice Part I 2 (2,0,0,0)**

This course, which is Part 1 of a 2 part course, provides a foundation and integrates basic pharmacology with nursing practice when caring for adult patients with chronic health care needs. Legal and ethical issues, nursing responsibilities in relation to medication administration, and dosage calculations will be discussed.

**PN 126B Pharmacology for Practical Nursing Practice Part II 1 (1,0,0,0)**

This course, which is Part 2 of a 2 part course, integrates pharmacology with nursing practice as it pertains to the patients with acute health care needs, pediatric patients, and maternal/obstetrics patients. Legal and ethical issues, nursing responsibilities in relation to medication administration, and dosage calculations will be discussed.

Prerequisite: PN 125B.

**PN 240B LPN Refresher 2.5 (2,1,5,0,0)**

Assists inactive practical nurses to update their knowledge and skills in order to renew their license. This is the first course of a two-course series and must be successfully completed prior to beginning the precepted clinical course. Students are expected to complete both courses within three semesters.

**PN 242B LPN Refresher (Clinical) 2.5 (0,0,0,7,5)**

This course is the second course of a two-course series designed to assist inactive practical nurses to update their knowledge and skills in order to renew their license. The student will be assigned to clinical practice under the supervision of an RN or LPN preceptor. Students are expected to complete this portion within 12 months of completing the theory.

Prerequisite: PN 240B

**Portuguese****PORT 101B Basics of Portuguese I 3 (3,0,0,0)**

A course emphasizing spoken communication. Speaking, oral listening, reading and writing skills explored. A vocabulary of Portuguese-English words developed.

**PORT 111 First Year Portuguese I 4 (4,0,0,0)**

The development of language skills in listening, speaking, reading and writing. Emphasis is placed on communication in all four language skills.

**PORT 112 First Year Portuguese II 4 (4,0,0,0)**

A course emphasizing the further development of Portuguese language skills in listening, speaking, reading and writing. Emphasis is placed on more sophisticated communication in all four language acquisition skills. Portuguese speaking culture(s) are also emphasized.

Prerequisite: PORT 111.

**PORT 211 Second Year Portuguese I 3 (3,0,0,0)**

A continuation of PORT 111 and PORT 112. This course emphasizes the development of Portuguese language skills in listening, speaking, reading, writing and Portuguese-speaking cultures.

Prerequisite: PORT 112.

**PORT 212 Second Year Portuguese II 3 (3,0,0,0)**

A continuation of PORT 111, PORT 112, and PORT 211. This course emphasizes the continuing development of Portuguese language skills in listening, speaking, reading, writing and Portuguese-speaking cultures.

Prerequisite: PORT 211.

**Political Science****PSC 100 Nevada Constitution 1-3 (1-3,0,0,0)**

This course represents a survey of Nevada politics and its constitution. It explores the structure of state government, the rights and liberties outlined in the state's constitution, and basic culture and politics. This course satisfies the Nevada Constitution requirement and is designed for out-of-state transfer students that have satisfied the U.S. Constitution requirement but need to fulfill the Nevada Constitution requirement.

Prerequisite: Department Chair approval.

**PSC 101 Introduction to American Politics 4 (4,0,0,0)**

A survey of the United States, national, state and local governments with emphasis on the cultural aspects of the governing process. (Satisfies the legislative requirement for the United States and Nevada Constitutions.)

Prerequisite: Earn a C or better in either ENG 100 or ENG 101 or ENG 107 or ENG 113.

**PSC 200 Survey of Political Theory 3 (3,0,0,0)**

Survey of political theory from Plato to the present. Among the thinkers whose works will be explored are Aristotle, St. Thomas Aquinas, Machiavelli, Hobbes, Locke, Rousseau, and Marx.

**PSC 201 Politics of Minority Groups 3 (3,0,0,0)**

An analysis of the historical and contemporary process of minority politics in the United States.





**PSC 205 Latino Politics and Society 3 (3,0,0,0)**

This course will focus on the social, economic, and political evolution of the Latino community in the United States.

**PSC 208 Survey of State and Local Government 3 (3,0,0,0)**

Organization, working principles, functional processes of state and local governments in the United States. (Satisfies the legislative requirement of the Nevada Constitution.)

**PSC 210 American Public Policy 3 (3,0,0,0)**

Analysis of the interplay of forces involved in policy-making at all levels of American government. Assessment of the impact of policy on individuals and institutions.

Prerequisite: PSC 101.

**PSC 211 Introduction to Comparative Politics 3 (3,0,0,0)**

Analysis of similarities and differences in the governing processes of developed and developing societies.

Prerequisite: PSC 101.

**PSC 222 Terrorism and Political Violence 3 (3,0,0,0)**

This interdisciplinary course focuses on the motivation for terrorism and political violence. It addresses the question, "What makes an otherwise ordinary person deliberately attack unarmed civilians who have personally done the perpetrator no wrong and is in no position to redress the perpetrator's grievances?"

(Same as GLO 222).

**PSC 231 Introduction to International Relations 3 (3,0,0,0)**

An introduction to and explanation of modern and contemporary international relations, foreign policies and economic and social conditions in an interrelated world.

**PSC 246 Politics of Developing Nations 3 (3,0,0,0)**

A survey of the politics, ideologies, political structures, processes, and important issues and problems in developing nations, with specific examples drawn from selected countries and regions. Students will consider the arguable meanings of "development" and "globalization."

**PSC 247 Organized Crime and Political Corruption 3 (3,0,0,0)**

Students will review relationships among organized crime groupings and local, state, and national governments with particular attention to twenty first century America and other selected nations.

**PSC 251 Introduction to Campaign Management 3 (3,0,0,0)**

Students will be exposed to a broad spectrum of subjects related to the management of political campaigns, with the intent of understanding various factors that must be considered and integrated into almost every political campaign.

**PSC 252 Elements of Political Communication 3 (3,0,0,0)**

Students will be introduced to the theoretical models and practical aspects of communications in the political world with an emphasis on strategies and tactics employed by campaign professionals.

**PSC 253 Online Campaign Strategies 3 (3,0,0,0)**

Introduction to internet-based campaign strategies with a focus on developing and managing a web-based campaign for election or other advocacy oriented activities.

**PSC 257 Political Parties and Interest Groups 3 (3,0,0,0)**

This course examines the history, purpose, organization, and strategies of the major and minor American political parties, and also examines the purpose of interest groups and their impact on the policy-making process.

**PSC 259 Lobbying and Issue Advocacy 3 (3,0,0,0)**

An examination of the profession and tactics of lobbying and issue advocacy including the processes, laws, and traditions surrounding the industry.

**PSC 260 Grassroots Politics 3 (3,0,0,0)**

This course examines the various aspects of grassroots politics in the context of political campaigns, the hurdles and barriers that exist, as well as nature of grassroots organizations and the various means to engage, activate, and focus them in the pursuit of specific goals or objectives.

**PSC 261 Introduction to Survey Research and Demographics 3 (3,0,0,0)**

An introduction to development, deployment, and interpretation of survey research and other statistical and analytical tools and methodologies in the current political environment.

**PSC 295 Special Topics in Political Science 1-3 (1-3,0,0,0)**

Exploration of an issue of current interest. Topics may include: the formulation and implementation of National Security Policy, international organization and law, structure and function of U.S. intelligence agencies, or revolution and reaction in Latin America. May be repeated with Department Chair approval up to a total of six credits.



**PSC 297 Capstone in Political Science 2 (2,0,0,0)**

This course provides a capstone experience in the field of political science, and provides preparation for both academic and non-academic careers in political science.

Prerequisite: Department approval.

**PSC 299 Government Internship 3 (0,0,0,9)**

Students receive practical experience in both the public and private sector through political internship opportunities, including campaigns and/or governmental agencies.

## Psychology

**PSY 101 General Psychology 3 (3,0,0,0)**

Introduction to the principles of psychology, including sensation, perception, cognition, learning, physiological psychology, personality, development, psychopathology, social psychology, methodology, assessment, and history of psychology.

**PSY 101H General Psychology - Honors 3 (3,0,0,0)**

An in-depth introduction to the principles of psychology including sensation, perception, cognition, learning, physiological psychology, personality, development, psychopathology, social psychology, assessment, and history through the use of an enhanced interactive instructional environment utilizing supplemental sources, reflective reasoning, and intensive dialogue. Courses with "H" suffixes are designated Honors-level courses and can be used to fulfill equivalent general education requirements.

Prerequisite: Admission to the Honors program.

**PSY 102 Psychology of Personal and Social Adjustment 3 (3,0,0,0)**

Study and analysis of effective psychological coping and adjustment strategies in both personal and diverse social contexts.

**PSY 130 Human Sexuality 3 (3,0,0,0)**

Psychological study of major topics related to human sexuality from scientific, developmental, socio-cultural, and applied perspectives.

**PSY 200 Introduction to the Psychology Major 1 (1,0,0,0)**

An introduction to psychology as a college major, including an overview of topics in psychology, careers in psychology, and preparation for additional study in psychology or closely-related disciplines.

**PSY 201 Lifespan Development 3 (3,0,0,0)**

Overview of developmental psychology from a lifespan perspective including physical, mental, social, and emotional changes at all stages of life from conception to death.

**PSY 203 Advanced General Psychology I 3 (3,0,0,0)**

Intensive study of selected major topics in the field of psychology.

Prerequisite: PSY 101.

**PSY 206 Business/Industrial Psychology 3 (3,0,0,0)**

Introduction to Business/Industrial/Organizational Psychology including individual, group, and organizational theory, research, and applications related to operations in businesses and other organizations.

**PSY 207 Psychology and the Family 3 (3,0,0,0)**

Overview of the current theories and research findings regarding family structures including evolving familial relationships, familial dynamics, familial transitions, and effective therapeutic interventions.

**PSY 208 Psychology of Human Relations 3 (3,0,0,0)**

Explores the relationships between human beings and assists in the development of interpersonal communication skills which can be used personally and professionally.

**PSY 210 Introduction to Statistical Methods 4 (4,0,0,0)**

Study and practice with basic statistical methods especially useful in the presentation and interpretation of psychological, sociological and educational data, including an introduction to common computer based statistical programs. (Same as SOC 210.)

Prerequisite: MATH 095 with a grade of C or better; and PSY 101 or 101H.

**PSY 224 Introduction to Latino Psychology 3 (3,0,0,0)**

Examination of psychological influences affecting Latino(a)s within the United States both currently and historically.

**PSY 228 Psychology of Dreams 3 (3,0,0,0)**

Introduction to the study and analysis of dreams using psychological theory and interpretation.

**PSY 233 Child Psychology 3 (3,0,0,0)**

An introduction to the psychological study of child growth and development from conception through adolescence including physical, cognitive, social/emotional and moral development and issues relevant to each major developmental stage.

**PSY 234 Psychology of Adolescence 3 (3,0,0,0)**

An introduction to the psychological study of adolescent development including physical, cognitive, social/emotional, and moral development and issues relevant to adolescence.

**PSY 240 Introduction to Research Methods 3 (3,0,0,0)**

Overview of the research process in the social sciences, including the fundamental characteristics of quantitative and qualitative research, experimental designs and the role of statistical and correctional techniques. (Same as SOC 240.)

Prerequisite: PSY 101 or SOC 101.



**PSY 241 Introduction to Abnormal Psychology 3 (3,0,0,0)**

Overview of the perspectives, terminology and concepts used in identifying, diagnosing and treating abnormal behavior.

**PSY 261 Introduction to Social Psychology 3 (3,0,0,0)**

Introduction to social and group factors affecting individual behavior, including communication, self and socialization, attitude formation and change. (Same as SOC 261.)

**PSY 270 Understanding Psychology Through Film 3 (3,0,0,0)**

Analysis of psychological concepts as portrayed in popular film or video media related to individuals, families, relationships, abnormal behavior and human development.

**PSY 276 Aging in Modern American Society 3 (3,0,0,0)**

Interdisciplinary survey of theory, research, and policy related to the psychological and sociological development and changes in the process of aging. (Same as SOC 276.)

**PSY 298 Capstone Course 1 (0,0,0,3)**

Review and assessment of core concepts and learning outcomes of the psychology degree program. Designed as culminating course in completion of psychology degree requirements and preparation for further academic study.

Prerequisite: PSY 101 or 101H; and 200 and 210 and 240.

**PSY 299 Special Topics 3 (3,0,0,0)**

Concentrated study, research and analysis of selected topic(s) in psychology.

**Physical Therapy****PT 100 Introduction to Physical Therapy 3 (3,0,0,0)**

Introduction to the practice and profession of physical therapy including history, philosophy, role and scope, licensure and ethics. Other topics include documentation, medical terminology and information about other allied health careers.

**PT 101B Pilates for Fitness - Level I 2 (1,3,0,0)**

Course covers the foundation principles, theory of and instruction in Pilates method exercises using Pilates equipment. This class is designed for all fitness levels. Open enrollment.

**PT 102B Pilates for Fitness - Level II 2 (1,3,0,0)**

Course provides more in-depth instruction in theory and practice of Pilates method exercises. Emphasis will be on advanced exercises and a full-body workout using Pilates equipment.

Prerequisite: PT 101B or Instructor approval.

**PT 104B Dissection Techniques 1-3 (0,2-6,0,0)**

Students are introduced to the techniques used in the dissection of tissues for use as prosection materials in physical therapist assistant courses. Enrollment by Instructor approval.

**PT 105 Musculoskeletal Anatomy Review 1 (0,3,0,0)**

Students review selected topics in human anatomy including the musculoskeletal, neurological, cardiovascular and respiratory systems. Restricted to admitted PTA program students.

**PT 110 Principles of Kinesiology 2 (2,0,0,0)**

Students are introduced to basic kinesiological principles of normal movement and their importance in understanding and implementing treatment programs. Restricted to admitted PTA program students.

**PT 111 Problems in Kinesiology 2 (0,6,0,0)**

Students develop competencies in identifying anatomical landmarks and symmetry, muscle length relationships and contraction types, joint mechanics and function, neurological control and effects and gait cycle. Restricted to admitted PTA program students.

**PT 117 Fundamental Principles for the Physical Therapist Assistant 2 (2,0,0,0)**

This course reviews the fundamental principles required for appropriate patient treatment and care. Topics include gait training, mobility and transfer training, wheelchair adjustment, architectural barriers, documentation and patient education. Restricted to admitted PTA program students.

**PT 118 Fundamental Procedures for the Physical Therapist Assistant 2 (0,6,0,0)**

Students develop competence in fundamental skills including ADLs, transfers, mobility, gait training, architectural barriers, documentation and patient education. Patient age is considered. Restricted to admitted PTA program students.

**PT 120 Observation and Measurement Principles for the Physical Therapist Assistant 2 (2,0,0,0)**

Introduction to the principles for monitoring patient progress and safety and making recommendations for treatment modifications.

Prerequisite: PT 105 and 110 and 111 and 117 and 118.

**PT 121 Observation and Measurement Procedures 2 (0,6,0,0)**

Students develop competencies in observation and measurement techniques including goniometry, manual muscle testing, volumetric measurements, righting and equilibrium reactions and posture, gait and sensory assessments.

Prerequisite: PT 105 and 110 and 111 and 117 and 118.



- PT 122 Psychological-Social Considerations in Patient Care 3 (3,0,0,0)**  
Introduction to considerations which affect patient rehabilitation. Cultural diversity, work relationships, human relations, geriatric considerations, responses to illness, grieving, death and dying are discussed.  
Prerequisite: PT 105 and 110 and 111 and 117 and 118.
- PT 125 Principles of Physical Agents 2 (2,0,0,0)**  
Introduction to the theory underlying the effects of appropriate application of therapeutic physical agents.  
Prerequisite: PT 105 and 110 and 111 and 117 and 118.
- PT 126 Physical Agent Procedures and Practices 2 (0,6,0,0)**  
Students develop competence in the correct application of therapeutic heat and cold, electrotherapy, intermittent compression, massage, short wave diathermy, traction and ultrasound.  
Prerequisite: PT 105 and 110 and 111 and 117 and 118.
- PT 130 Administration in Physical Therapy 2 (2,0,0,0)**  
Introduction of students to administrative topics important for successful management including levels of authority, management techniques, personality profiles, performance evaluations, fiscal considerations and quality assurance.  
Prerequisite: PT 105 and 110 and 111 and 117 and 118.
- PT 134 Clinical Affiliation I 2 (1,0,5,0)**  
An integrated clinical experience which provides students the opportunity for observation and/or hands-on care in a variety of health settings, under the supervision of a licensed physical therapist, as applicable. The emphasis of this affiliation is applying learned fundamental skills to clinical performance expectations. A focus of this course is solid preparation for future full-time clinical affiliations.  
Prerequisite: PT 105 and 110 and 111 and 117 and 118.
- PT 225 Therapeutic Principles for Musculoskeletal Pathologies 3 (3,0,0,0)**  
Introduction to basic therapeutic principles underlying the treatment of patients with musculoskeletal pathologies. General exercise programs along with specific treatment protocols, and their indications and contraindications will be presented.  
Prerequisite: PT 120 and 121 and 122 and 125 and 126 and 130 and 134.
- PT 226 Therapeutic Procedures for Musculoskeletal Pathologies 2 (0,6,0,0)**  
Students are introduced to and develop competence in the application of therapeutic exercise and other procedures used when treating musculoskeletal pathologies.  
Prerequisite: PT 120 and 121 and 122 and 125 and 126 and 130 and 134.
- PT 238 Pathophysiology I 3 (3,0,0,0)**  
Review of the inflammatory and healing processes of tissue trauma or disease and the disease process associated with specific musculoskeletal pathologies.  
Prerequisite: PT 120 and 121 and 122 and 125 and 126 and 130 and 134.
- PT 240 Orthotic and Prosthetic Considerations in Patient Care 1 (1,0,0,0)**  
Students are introduced to the various types of orthotic and prosthetic devices and their use in patient care.  
Prerequisite: PT 120 and 121 and 122 and 125 and 126 and 130 and 134.
- PT 244 Clinical Affiliation II 2 (0,0,21,0)**  
This eight-week, full-time (40 hours/week) clinical affiliation is designed to expand the student's knowledge and competencies in treating musculoskeletal pathologies. The emphasis of this affiliation is providing direct, hands-on patient care, under the supervision of a physical therapist, acquiring entry-level competencies in musculoskeletal skills learned in the semester as well as continued development of fundamental competencies acquired in previous semesters.  
Prerequisite: PT 120 and 121 and 122 and 125 and 126 and 130 and 134.
- PT 248 Pathophysiology II 3 (3,0,0,0)**  
Introduction of students to specific neuromuscular pathologies most commonly treated in the physical therapy clinic.  
Prerequisite: PT 225 and 226 and 238 and 240 and 244 and 250 and 251.
- PT 250 Therapeutic Principles for Cardiopulmonary Pathologies 2 (2,0,0,0)**  
Introduction to the therapeutic principles underlying the treatment of patients with cardiopulmonary pathologies.  
Prerequisite: PT 120 and 121 and 122 and 125 and 126 and 130 and 134.
- PT 251 Therapeutic Procedures for Cardiopulmonary Pathologies 1 (0,2,0,0)**  
Students develop competencies in the application of specific treatment protocols used with cardiopulmonary pathologies.  
Prerequisite: PT 120 and 121 and 122 and 125 and 126 and 130 and 134.
- PT 254 Therapeutic Principles for Neuromuscular Pathologies 3 (3,0,0,0)**  
Introduction to the therapeutic principles used in the treatment of patients with neuromuscular pathologies.  
Prerequisite: PT 225 and 226 and 238 and 240 and 244 and 250 and 251.



**PT 255 Therapeutic Procedures for Neuromuscular Pathologies 2 (0,6,0,0)**

Students are introduced to and develop competencies in the application of specific treatment procedures used with neurologically involved children and adults.

Prerequisite: PT 225 and 226 and 238 and 240 and 244 and 250 and 251.

**PT 256 Clinical Affiliation III 2 (0,0,21,0)**

This eight-week, full-time (40 hours/week) clinical affiliation is designed to expand the student's knowledge and competencies in treating neuromuscular pathologies. The emphasis of this affiliation is providing direct, hands-on patient care, under the supervision of a physical therapist, acquiring entry-level competencies in neuromuscular skills learned in the semester as well as continued development of musculoskeletal and fundamental competencies acquired in previous semesters.

Prerequisite: PT 225 and 226 and 238 and 240 and 244 and 250 and 251.

**PT 298B Special Topics in Physical Therapy 1 (1,0,0,0)**

Students will be introduced to selected topics in rehabilitation medicine that are not covered in the core physical therapist assistant program curriculum.

### Radiation Therapy Technology

**RDTP 101B Introduction to Radiation Therapy 2 (1,3,0,0)**

This course is designed to provide the student with an overview of the foundations in radiation therapy and the practitioner's role in the health care delivery system. Principles, practices, and policies of the educational program, health care organizations, and principles of radiation and health safety and professional responsibilities of the radiation therapist will be discussed and examined. Students will also be provided foundation concepts and competencies in assessment and evaluation of the patient for service delivery. Psychological and physical needs and factors affecting treatment outcome will be presented and examined. Routine and emergency care procedures will also be presented.

**RDTP 102B Methodologies I 2 (2,0,0,0)**

This course is designed to provide the students an introduction to cancer treatment and management. Before entering full-time clinical rotations, the students will become familiar with a wide range of treatment procedures, common prescription doses for various cancer types, and educating patients on treatment side effects.

**RDTP 103B Introduction to Oncology 1 (1,0,0,0)**

This course will introduce the student to the disease process. The student will learn about the types of growths, causative factors, and biological behavior of cancer. Students will examine palliative care for the cancer patient. Basic medical terminology will be introduced.

**RDTP 105B Patient Care and Assessment 2 (2,0,0,0)**

Concepts and competencies in assessment and evaluation of the patient for health service delivery with emphasis placed on radiation therapy. The student will examine the psychological and physical needs and factors affecting treatment outcome, routine and emergency care procedures, and the use of medical oncology. Students will learn the physical diagnosis process and how to examine the cancer patient for clinical assessment and quality of care.

**RDTP 115B Caring for the Patient at the End of Life 1 (1,0,0,0)**

This course outlines the wide range of clinical experiences used to care for patients at the end of life. The course discusses practical guidance for clinicians, patients, and families about critical communication issues such as delivering bad news, discussing palliative care, making decisions for incapacitated patients, and exploring the wish to die.

**RDTP 125B Radiographic Process 2 (2,0,0,0)**

This course provides the student with instruction on the principles of radiation production, interactions with matter detection, and protection. Students will also explore radiographic imaging, radiation therapy, and treatment planning.

**RDTP 150B Introduction to Radiation Physics 2 (2,0,0,0)**

This course will establish a working knowledge of the mathematics and physics needed to understand and compute formulas related to the use of radiation in a clinical treatment setting.

**RDTP 180B Radiobiology 3 (3,0,0,0)**

Content is designed to present basic concepts and principles of radiation biology. The interactions of radiation with cells, tissues and the body as a whole and resultant biophysical event will be presented. Discussion of the theories and principles of tolerance doses, time-dose relationships, treatment fractionation schemes and the relationship of the clinical practice of radiation therapy will be discussed, examined, and evaluated.

**RDTP 202B Radiotherapy Physics 3 (3,0,0,0)**

This course is a continuation of RDTP 150 and will provide the student with a more advanced insight into the principles of physics as they relate to radiation therapy. Included are; measurements, dosage, absorption, isodose curves, radiation safety and protection, room design and calibration of equipment, Brachytherapy as well as disposal of radioactive waste.

**RDTP 210B Treatment Planning I 3 (3,0,0,0)**

Content is designed to establish factors that influence and govern clinical planning of patient treatment. The student will learn isodose descriptions, patient contouring, basic dosimetric calculations (single field and parallel opposed fields, PDD, TAR, TMR), and clinical applications of treatment beams. Class demonstrations / laboratories and projects are incorporated to complement specific content areas and are focused on clinical applications.



**RDTP 211B Radiographic Analysis 2 (2,0,0,0)**

This course is designed to provide the students with an understanding of the diagnostic imaging process as well as the radiation treatment delivery process. This course will also introduce students to the basic concepts of computed tomography, sectional anatomy, and how these relate to patient positioning and treatment.

**RDTP 212B Cross Sectional, Topographic and Radiological Anatomy 2 (2,0,0,0)**

This course discusses anatomy specifically from an imaging perspective. Students will learn to identify structures and pathology on CT and MRI scans as well as locating landmarks on diagnostic and simulator films. Basic anatomical relationships will be compared using topographical and cross-sectional images.

**RDTP 213B Radiation Oncology 3 (3,0,0,0)**

This course provides the student with an understanding of the clinical signs, symptoms, epidemiology, routes of spread, pathology, staging system, and management approaches of the major tumor sites in the body. Topics covered include diagnostic and staging work-up, prognostic factors, decision-making skills for treatment options and treatment results.

**RDTP 214B Methodologies II 2 (1,3,0,0)**

This course deals with relational and cross-sectional anatomy of the head, thorax, abdomen, pelvis, and representative sections of the extremities. In the laboratory component, students will simulate radiation treatment fields of cross-sectional anatomy using C.T., MRI, SPECT, ultrasound, and PET images. This course is designed to move students from a two- to a three-dimensional view of internal and relational anatomy.

**RDTP 215B Treatment Planning II 3 (3,0,0,0)**

This course is a continuation of Treatment Planning I. Students will be responsible for accurate three-dimensional treatment plans for lung, brain, abdomen, pelvis and extremity cancers. Planning will include wedges, blocks, beam weighting, off axis, boost fields and special techniques.

**RDTP 216B Methodologies III 2 (1,3,0,0)**

A continuation of Radiation Oncology I. This course will continue to discuss the management of specific neoplastic disease including epidemiology, etiology, detection, diagnosis, patient condition, treatment, and prognosis of neoplastic disease in relationship to histology, anatomical site, and patterns of spread; the radiation therapists' responsibility in the management of neoplastic disease.

**RDTP 219B Advanced Radiation Therapy Techniques 2 (2,0,0,0)**

Continuation of RDTP 214B to provide the student with the advanced concepts of dosimetry, treatment planning, and patient simulation. Various external beam techniques and applications, depth dose data, and summation of isodose curves will be applied to simulation procedures. Modalities of treatment, immobilization, patient set-up, dose measurement and verification are discussed and practiced.

**RDTP 220B Treatment Planning Lab 1 (0,3,0,0)**

Content is designed to establish factors that influence and govern clinical planning of patient treatment. The student will learn isodose descriptions, practice patient contouring, radiobiological considerations, dosimetric calculations, compensation and clinical applications of treatment beams. Optimal treatment planning is emphasized along with particle beams. Stereotactic and emerging technologies are also discussed. Class demonstrations / laboratories and projects are incorporated to complement specific content areas and are focused on clinical applications. Students will complete a minimum of fifteen (15) laboratory assignments computing basic single field, parallel opposed fields, and computer generated treatment plans.

**RDTP 221B Ethics/Law/Professionalism 2 (2,0,0,0)**

This course establishes a basic foundation of professional practice for the radiation therapist as a part of the radiation therapy team. It discusses ethical behavior for caregivers as well as legal ramifications, malpractice issues, and ARRT ethics. The course content is designed to develop problem solving and critical thinking skills, especially as they relate to clinical ethics.

**RDTP 229B Radiation Therapy Board Review 1 (1,0,0,0)**

This course offers a comprehensive review of all courses in the Radiation Therapy program to prepare the student to sit the ARRT-National Registry examination. Four complete Board exams will be administered to mimic the actual exam and students will be able to dissect their errors and correct them through lecture and reading assignments.

**RDTP 230B Clinical Applications I 1 (0,3,0,0)**

Patient treatment competencies are discussed and practiced on a simulation machine. Students are introduced to isocenter, depth of treatment, patient localization marks, immobilization devices, patient alignment using lasers.

**RDTP 231B Clinical Applications II 1 (0,3,0,0)**

Continuation of Clinical Applications I. Students will be assigned four (4) intermediate treatment competencies to be completed under the direct supervision of CSN faculty.

**RDTP 232B Clinical Practicum III 3 (0,0,21,0)**

Continuation of Clinical Applications II where the student will take the competencies learned in the lab and apply them to actual patients in the clinic. The student responsibilities increase as more complicated competencies are introduced in patient treatments set-ups.

**RDTP 233B Clinical Practicum IV 1 (0,3,0,0)**

Advanced Clinical Practicum stressing practical application of dosimetry competencies under the direct supervision of a medical physicist or dosimetrist. Continuation of advanced patient treatment competencies under the supervision of a Registered Radiation Therapist.



**RDTP 234B Clinical Practicum V 4 (0,0,17,0)**

The most advanced clinical practicum as evidenced by the level of competency of the student upon completion of RDTP 233B. Successful completion of this course will ensure that the student is competent upon graduation to assume all of the responsibilities required of a Registered Radiation Therapy Technologist.

### Real Estate

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**RE 101 Real Estate Principles 3 (3,0,0,0)**

A course that covers most subjects required for successful passing of the state real estate exam. Satisfies requirements of the Nevada State Real Estate Commission Salesman's exam.

**RE 102B Real Estate Math 3 (3,0,0,0)**

A general mathematics course designed to assist the student who wishes to pass the state exam as well as the student who wants to be more proficient and knowledgeable in the real estate profession.

**RE 103 Real Estate Law and Practice 3 (3,0,0,0)**

A law course specifically designed for the field of real estate including agency, contracts, deeds, instruments, easements, estates in land, zoning, restrictions, tenancy, liens, foreclosures, transfers of title, leases and court decisions. One of two courses required by the Nevada Real Estate Commission to take the Salesperson's License exam.

**RE 199 Real Estate Investments 3 (3,0,0,0)**

Introduction to the mechanics of the real estate business, state, and federal regulations, management, financial statements, formulas, techniques, protection and investment guidelines for the consumer as they relate to the real estate business.

**RE 201B Real Estate Brokerage 3 (3,0,0,0)**

Study of the factors necessary for the establishment and efficient operation of brokerage offices. Ethics, listing, office location, physical layout, budgeting, records and procedures. One of several courses required by the Nevada Real Estate Commission to take the Broker's exam.

**RE 202 Real Estate Financing and Insurance 3 (3,0,0,0)**

A study of the procedures and techniques requisite to the analysis of financial real property. The types of financing include conventional, Federal Housing Administration, Veterans' Administration, credit evaluations, interest rates, loan costs and the availability of mortgage money and its competition in the money market. Types of insurance specifically applicable to the real estate industry covered.

**RE 203B Tax Aspects of Real Property Transactions 3 (3,0,0,0)**

Course covers basic tax law principles governing forms and methods of acquisition of real property. Emphasis is on planning techniques to structure real property transactions to minimize tax liability.

**RE 205B Real Property Management 3 (3,0,0,0)**

Designed to cover the fundamental principles involved in the management of real property. Topics to be covered include the role of an effective managing agent, accounting systems and financial controls, human relations in property management, leases, developing management checklist and developing effective service techniques.

**RE 206 Real Estate Appraising 3 (3,0,0,0)**

Course covers basic principles and economic trends, nature of appraisal process, neighborhood and site analysis, site evaluation, residential style and functional utility. Use of cost, income capitalization and market approaches to value and the correlation of the data to arrive at a value estimate. Recommended for those holding a real estate license.

**RE 295B Work Experience I 3 (0,0,0,15)**

Cooperative Education course designed to provide the student with on-the-job supervised and educationally directed work experience with the Real Estate Program. Student must work a minimum average of 15 hours per week for a total of 225 hours to earn practicum work experience credit.

### Reading Skills

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**READ 092 Spelling Skills I 3 (3,0,0,0)**

Develops essential spelling skills. Emphasis is on learning, practice and retention of basic spelling rules.

**READ 094 Spelling Skills II 2 (2,0,0,0)**

This class offers a variety of approaches to help students master the spelling of troublesome words. Some of the approaches include: learning principles, pairing, mnemonic devices, rhyme, definition, repetition, pronunciation.

Prerequisite: READ 92 with a grade of C or higher.

**READ 095 Reading and Improvement 3 (3,0,0,0)**

This class will improve fundamental reading skills, including word-attack skills, vocabulary development, reading comprehension, fluency, and interpretation. Extensive opportunities for applying reading strategies for before, during, and after reading will be provided. Critical analysis skills in relationship to various texts will be introduced to guide students toward college level reading.

Prerequisite: Accuplacer Reading Placement Test.

**READ 096 Vocabulary Skills I 3 (3,0,0,0)**

Designed to broaden the student's range of English vocabulary. Emphasis is placed on word recognition, misused words, basic Latin and Greek roots.

**READ 097 Vocabulary Skills II 3 (3,0,0,0)**

Strategies for the mastery of vocabulary words useful for the academic and employment world.

Prerequisite: READ 096 with a grade of C or higher.



**READ 099 Active Reading Strategies 1 (0,3,0,0)**

This course will equip students with active reading skills and vocabulary learning strategies that will improve their success in other courses. Designed to be taken with another class that relies heavily on difficult reading.

**READ 130 Reading in the Disciplines 3 (3,0,0,0)**

Students will learn the unique skills, including vocabulary, comprehension, and fluency, required to read textbooks and related materials in different subject areas. Students will learn how to adapt and apply academic reading and learning strategies to suit the distinct characteristics of college-level texts in academic disciplines.

Prerequisite: Accuplacer Reading Score or READ 095 with a grade of C or better.

**READ 135 College Reading Strategies 3 (3,0,0,0)**

Improvement of reading comprehension, critical thinking skills, vocabulary, reading rate, and study-reading techniques through reading and analyzing a variety of texts, including college level texts and textbook selections from various areas. Note: May be taken in lieu of the reading portion of the PPST exam by a license holder who has failed the PPST reading portion at least once when a grade of B is obtained at the conclusion of the course. This option is not available to students in teacher education courses.

Prerequisite: Accuplacer Reading Placement test score; or C or better in READ 095; or License holder who has failed the PPST reading portion at least once.

## Religious Studies

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**RST 101 Introduction to Religious Studies 3 (3,0,0,0)**

Varieties of religious expression: belief, ritual scripture, art. Religious issues: deity, the sacred, death, evil, salvation. Methods of studying religion.

**RST 136 Introduction to Women and Religion 3 (3,0,0,0)**

This course studies women as subjects of religion and provides an opportunity for students to examine religion in the context of the gender-specific experiences of women. The course includes the roles of women in a variety of religious groups as well as a study of the myths and symbols relating to women's roles in these religious groups.

**RST 150 Abrahamic Religions: Judaism, Christianity, Islam 3 (3,0,0,0)**

This course focuses on the major historical developments, structural cosmology, symbolic interpretation, and values of the Abrahamic religions: Judaism, Christianity, Islam.

**RST 170 Introduction to Modern Western Paganism 3 (3,0,0,0)**

This course introduces Modern Western Paganism. Included are history, sources, traditions, cosmology, practices, rituals, ritual calendars, and rites of passage.

**RST 260 Mesoamerican Religions: Jaguars, Serpents, Trees 3 (3,0,0,0)**

Introduction to the religions of Mesoamerica using cultural methods such as art and architecture coupled with written sources to explore their unique cosmology.

**RST 270 Modern Western Pagan Thought 3 (3,0,0,0)**

Exploration of beliefs, values, and ethics of the modern western Pagan community. Includes concepts of deity, nature, magic, ethics, existence, suffering, evil, death, and ecstasy.

**RST 295 Topical Issues in Religious Studies 1-3 (1-3,0,0,0)**

The topic will vary; however the intent is to develop awareness of and appreciation for certain religious or spiritual paths and/or issues. May be repeated up to six credits.

## Russian

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**RUS 111 First Year Russian I 4 (4,0,0,0)**

The development of language skills in listening, speaking, reading and writing; structural analysis. Emphasis is placed on speaking.

**RUS 112 First Year Russian II 4 (4,0,0,0)**

The development of language skills in listening, speaking, reading and writing; structural analysis. Emphasis is placed on speaking.

Prerequisite: RUS 111 or equivalent.

**RUS 211 Second Year Russian I 3 (3,0,0,0)**

Further development of Russian speaking, listening, reading, writing skills and Russian cultural awareness.

Prerequisite: RUS 112 or Department approval.

**RUS 212 Second Year Russian II 3 (3,0,0,0)**

Further advancement of Russian speaking, listening, reading, writing skills and Russian cultural awareness.

Prerequisite: RUS 211 or Department approval.

## Sustainable Construction

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**SCT 201B Sustainable Construction of New Buildings 3 (3,0,0,0)**

This course will compare the differences between sustainable construction and the traditional method of construction including environmental and social demands and economic strategies during construction and after the construction is completed.

Prerequisite: SCT 101B and 105B.





**SCT 202B Sustainable Construction of Existing Buildings 3 (3,0,0,0)**

This course will cover retrofitting of commercial and residential construction for energy efficiency and sustainable operations of existing buildings.

Prerequisite: ENG 100 or 101 or 113; and SCT 101B and 105B.

**Sociology****SOC 101 Principles of Sociology 3 (3,0,0,0)**

An overview of the sociological principles that shape the development, structure and function of societies, cultures, human interactions, groups, self-image, and social change.

**SOC 101H Principles of Sociology – Honors 3 (3,0,0,0)**

An Honors-level study of sociological principles that shape the development, structure and function of societies, cultures, human interactions, groups, self-image, and social change. Honors emphasizes interactive learning, entailing an examination of the self and one's social and cultural world through the use of reflective reasoning and dialogue. Courses with "H" suffixes are designated Honors-level courses and can be used to fulfill equivalent general education requirements.

Prerequisite: Admission to the Honors program.

**SOC 102 Contemporary Social Issues 3 (3,0,0,0)**

An examination of selected social issues and problems, their causes and proposed solutions.

**SOC 205 Ethnic Groups in Contemporary Societies 3 (3,0,0,0)**

A survey of racial and ethnic intergroup relations in the United States and other societies. Emphasis is on cultural, social, and institutional factors that lead to group conflict and/or cultural pluralism. (Same as ANTH 205.)

**SOC 207 Introduction to Sociological Theory 3 (3,0,0,0)**

Examination of the works of classical and contemporary social theorists of the nineteenth and twentieth centuries.

**SOC 210 Introduction to Statistical Methods 4 (4,0,0,0)**

Study and practice with basic statistical methods especially useful in the presentation and interpretation of psychological, sociological and educational data, an introduction to common computer based statistical programs. (Same as PSY 210.)

Prerequisite: MATH 95 with a grade of C or better; and SOC 101 or SOC 101H.

**SOC 222 Terrorism and Political Violence 4 (4,0,0,0)**

This interdisciplinary course focuses on the motivation for terrorism and political violence. It addresses the question, "What makes an otherwise ordinary person deliberately attack unarmed civilians who have personally done the perpetrator no wrong and is in no position to redress the perpetrator's grievances?" The course approaches the issue from four different academic perspectives: history, psychology, sociology, and political science. (Same as PSC 222 and HIST 222.)

**SOC 225 Media and Society 3 (3,0,0,0)**

An investigation of the role of the Mass Media and its effects on contemporary society.

**SOC 240 Social Science Research Methods 3 (3,0,0,0)**

Overview of the research process in the social sciences including the fundamental characteristics of quantitative and qualitative research, experimental designs, and the role of statistical and correlational techniques. (Same as PSY 240.)

Prerequisite: PSY 101 or SOC 101.

**SOC 241 Introduction to Research Methods 3 (3,0,0,0)**

This course provides a broad survey of research methods and the tools needed to critically assess sociological research.

**SOC 261 Introduction to Social Psychology 3 (3,0,0,0)**

Introduction to social and group factors affecting individual behavior including communication, self and socialization, attitude formation and change. (Same as PSY 261.)

**SOC 270 Introduction to Deviant Behavior 3 (3,0,0,0)**

A survey of the contrasting sociological perspectives in the field of deviant behavior as applied to a variety of socially stigmatized behaviors.

**SOC 275 Introduction to Marriage and Family 3 (3,0,0,0)**

Survey of issues in the sociology of the family including the intersection of race/ethnicity, class, and gender. (Same as WMST 275.)

**SOC 276 Aging in Modern American Society 3 (3,0,0,0)**

Interdisciplinary survey of theory, research, and policy related to the psychological and sociological development and changes in the process of aging in society. (Same as PSY 276.)



**SOC 281 Computer Applications for the Social Sciences 4 (2,4,0,0)**

This course equips students with computer skills needed to compete effectively for new employment opportunities in service organizations and evaluation research (i.e., applications, analysis, data management).

Prerequisite: IS 101.

**SOC 289 Applied Skills in Sociology 3 (3,0,0,0)**

Designed as culminating course in completion of sociology degree program. This capstone course blends research, theory, and method with supervised practical experience in applied sociology.

Prerequisite: Instructor approval.

**SOC 291 Field Experience in Sociology 1 (0.5,0,0,4)**

Program includes formal classroom instruction (substantive and applied components), computer-related tasks, and on-site job training, blending theory with practice. Communication and social interactive skills are developed and practiced. Course may be repeated one time for a total of two credits.

**SOC 295 Sociology of the Future 3 (3,0,0,0)**

Providing a sociological perspective on the emerging trends and issues that affect the current outlook for our society, including an introduction to various models for forecasting future trends and how to critically evaluate forecasts.

**SOC 298 Selected Topics in Sociology 3 (3,0,0,0)**

Variable content required to respond to specific topic areas in sociology, relationships between sociology and the community, special student interests and needs and faculty expertise.

**SOC 299 Capstone Course in Sociology 1 (0,0,0,1)**

This course provides a capstone experience in the field of sociology. It integrates coursework covered in the Sociology AA degree program and provides preparation for both academic and non-academic careers in sociology.

Prerequisite: Instructor approval.

## Sonography

**SON 101B Basic Sonography 3 (3,0,0,0)**

Presents an introduction to sonography, with an emphasis on the role of the sonographer, basic anatomy, physiology, physics, and imaging parameters.

**SON 101L Basic Sonography Laboratory 1 (0,3,0,0)**

Focuses on the development of skills needed to begin clinical courses.

**SON 102B Basic Cardiac Sonography 3 (3,0,0,0)**

Presents an introduction to cardiac sonography, with an emphasis on the role of the sonographer, basic anatomy, physiology, physics and imaging parameters.

Corequisite: SON 102L.

**SON 102L Basic Cardiac Sonography Laboratory 1 (0,3,0,0)**

Focuses on the development of skills needed to begin clinical courses.

**SON 116B Echocardiography I 3 (3,0,0,0)**

Focuses on valvular heart disease, ischemic cardiac disease, cardiomyopathy, pericardial disease, congenital heart disease, and cardiac neoplasms and masses.

**SON 125B Sonographic Physics and Instrumentation I 3 (3,0,0,0)**

Focuses on basic sonographic principles, with an emphasis on instrumentation.

**SON 135B Cardiovascular Ultrasound Physics 2 (2,0,0,0)**

This course presents students with advanced cardiovascular principles with an emphasis on cardiac anatomy, physiology, evaluation methods and hemodynamics. The information presented will serve as a resource for the ARDMS exam on cardiovascular principles and instrumentation.

**SON 150B Patient Care for Imaging Professions 3 (2,3,0,0)**

Focuses on patient care procedures, patient transport and handling, infection control, surgical asepsis, interview and examination techniques, vital signs and emergency procedures and chart and referral evaluations.

**SON 160B Sonographic Scanning Lab I 2 (0,8,0,0)**

Ultrasound procedures performed in supervised lab on campus.

**SON 190B Sonographic Physics and Instrumentation II 3 (3,0,0,0)**

Continuation of Sonographic Physics I with emphasis on Doppler physics, including color Doppler, hemodynamics, bio effects, quality assurance/control and sonographic artifacts.

Prerequisite: SON 125B.

**SON 195B Sonographic Scanning Lab II 2 (0,8,0,0)**

Ultrasound procedures performed in a supervised lab on campus.

**SON 210B Abdominal Sonography I 3 (3,0,0,0)**

Focuses on the anatomy, physiology and pathology of the abdominal organs that can be visualized with ultrasound.



**SON 216B Echocardiography II 3 (3,0,0,0)**

Continuation of SON 116B with emphasis on cardiac trauma, pulmonary vascular disease, diseases of the aorta and great vessels, transesophageal echocardiography, contrast echocardiography and intraoperative echocardiography.

**SON 220B Abdominal Sonography II 3 (3,0,0,0)**

Focuses on the anatomy, physiology, and pathology of the urinary system, thyroid, breast, scrotum, prostate and neonatal neurosonography.

Prerequisite: SON 210B.

**SON 225B Stress Echocardiography 3 (3,0,0,0)**

Focuses on the indications, utility, limitations and technical procedures related to stress echocardiology including cardiovascular pharmacology, theory and use of provocative stress agents and non-pharmacologic stress.

**SON 235B Gynecologic Sonography 3 (3,0,0,0)**

Focuses on the anatomy, physiology and pathology of the female pelvis and reproductive system and sonographic appearance.

**SON 245B Obstetrical Sonography I 3 (3,0,0,0)**

Focuses on the anatomy, physiology and pathology of pregnancy with emphasis on first trimester pregnancy and complications of first trimester obstetrics. Normal sonographic obstetrical measurements and sonographic appearance of first, second and third trimester pregnancy will also be covered.

**SON 250B Seminar and Case Review I 2 (2,0,0,0)**

Through the presentation of select cases by students, faculty and radiologists, the multi-facets of diagnostic medical sonography are reviewed and future trends discussed.

**SON 255B Seminar and Case Review II 2 (2,0,0,0)**

Through the presentation of select cases by students, faculty, and radiologists, the multi-facets of diagnostic medical sonography are reviewed and future trends discussed.

**SON 260B Obstetrical Sonography II 3 (3,0,0,0)**

Continuation of Obstetrical Sonography I with emphasis on abnormal second and third trimester pregnancy, fetal anomalies, multiple gestation, maternal disease, amniotic fluid, placenta and invasive procedures during pregnancy.

**SON 261B Pediatric Echocardiography I 3 (3,0,0,0)**

Focuses on fetal, neonatal and pediatric echocardiography including embryology and normal fetal and neonatal cardiac anatomy. Pediatric cardiac pathology, pathophysiology and hemodynamics in various disease processes will be discussed.

**SON 262B Pediatric Echocardiography II 2 (2,0,0,0)**

Continuation of Pediatric Echocardiography I with special emphasis on contrast agents, specialized pediatric patient care, pediatric transesophageal echocardiography and surgical procedures utilized for pediatric cardiac anomalies.

**SON 270B Small Parts/Pediatric Sonography 2 (2,0,0,0)**

Focuses on the anatomy, physiology and pathology of the thyroid, breast, scrotum, prostate, and neonatal brain. Pediatric spine, abdomen, kidneys, hips, and gastrointestinal system as imaged on ultrasound will be discussed.

**SON 275B Vascular Sonography I 3 (3,0,0,0)**

Focuses on duplex and color Doppler imaging of the extracranial cerebral and peripheral vessels of the vascular system as well as the physiology and sonographic appearance of normal anatomy and pathology.

Corequisite: SON 275L.

**SON 275L Vascular Sonography Laboratory I 1 (0,4,0,0)**

Focuses on the use of "Direct Testing" methods in the performance of vascular ultrasound procedures in a supervised lab on campus.

**SON 276B Vascular Sonography II 3 (3,0,0,0)**

Continuation of SON 275B (Vascular Sonography I), with an emphasis on the use of "Indirect Testing" ultrasound evaluation of the vascular system in the upper and lower extremities; and transcranial Doppler. Plethysmography of extremity vessels will also be discussed.

Corequisite: SON 276L.

**SON 276L Vascular Sonography Laboratory II 1 (0,4,0,0)**

Focuses on the use of "Indirect Testing" methods in the performance of vascular ultrasound procedures in a supervised lab on campus.

**SON 280B Sonographic Clinical Practicum I 2 (0,0,16,0)**

Provides 16 hours per week of supervised ultrasound clinical experience.

**SON 281B Sonographic Clinical Practicum II 2 (0,0,16,0)**

Provides 16 hours per week of supervised ultrasound clinical experience.

Prerequisite: SON 280B.

**SON 282B Sonographic Clinical Practicum III 3 (0,0,24,0)**

Provides 24 hours per week of supervised ultrasound clinical experience.

Prerequisite: SON 281B.



**SON 283B Sonographic Clinical Practicum IV 3 (0,0,24,0)**

Provides 24 hours per week of supervised ultrasound clinical experience.

Prerequisite: SON 282B.

**SON 284B Sonographic Clinical Practicum V 3 (0,0,24,0)**

Provides 24 hours per week of supervised ultrasound clinical experience.

Prerequisite: SON 283B.

**SON 290B Sonography Registry Review 2 (2,0,0,0)**

A review of material covered in all previous sonography courses. Designed to prepare students to take the Abdominal, Obstetrics and Gynecology, and Ultrasound Physics and Instrumentation registries.

**SON 291B Cardiac Registry Review 2 (2,0,0,0)**

Review of all course content for Cardiac/Vascular program with emphasis on registry question.

## Spanish

**SPAN 101B Basics of Spanish I 3 (3,0,0,0)**

An introductory Spanish course emphasizing spoken communication and development of elementary structures in Spanish. It may not transfer to other institutions.

**SPAN 102B Basics of Spanish II 3 (3,0,0,0)**

A continuation of the basic language skills learned in SPAN 101B, emphasizing spoken communication and development of elementary structures in Spanish. Course may not transfer to other institutions.

Prerequisite: SPAN 101B.

**SPAN 105B Spanish for Health Professions I 3 (3,0,0,0)**

An introductory course emphasizing spoken communication. Students study basic grammatical concepts in a variety of practical settings and specialized vocabulary needed by personnel in the health professions.

Prerequisite: SPAN 105B or equivalent

**SPAN 106B Spanish for Health Professions II 3 (3,0,0,0)**

A continuation of SPAN 105B; students continue studying specialized vocabulary and basic grammatical concepts needed by health professions personnel and apply it in practical settings.

Prerequisite: SPAN 105B or equivalent knowledge of basic Spanish structures and vocabulary.

**SPAN 111 First Year Spanish I 4 (4,0,0,0)**

A beginning level Spanish course emphasizing the development of language skills (listening, speaking, reading, and writing) and cultural understanding. Emphasis on basic communication.

**SPAN 112 First Year Spanish II 4 (4,0,0,0)**

This is the second semester of first-year Spanish concentrating on the development of language skills in the present and simple past tenses (listening, speaking, reading and writing) and cultural understanding. Emphasis on basic communication.

Prerequisite: SPAN 111.

**SPAN 116B Spanish for Law Enforcement I 3 (3,0,0,0)**

Emphasizes spoken communication, including the specialized vocabulary and basic grammatical concepts needed by Law Enforcement personnel. Will provide applications of Spanish in situations ranging from domestic violence to reading the Miranda warning.

**SPAN 126 Introduction to Spanish for Heritage Speakers 3 (3,0,0,0)**

This course focuses on expanding intermediate-level vocabulary, developing oral skills, and exploring basic grammatical concepts to prepare students for second year courses. The course was designed for students who grew up or spent significant amounts of time, in a Spanish-speaking environment.

**SPAN 211 Second Year Spanish I 3 (3,0,0,0)**

The development of intermediate language skills using a variety of tenses (listening, speaking, reading, and writing) and cultural understanding. Emphasis on incorporation of intermediate communication.

Prerequisite: SPAN 112.

**SPAN 212 Second Year Spanish II 3 (3,0,0,0)**

The development of intermediate language skills using a comprehensive variety of tenses (listening, speaking, reading, and writing) and cultural understanding. Emphasis on mastery of intermediate communication.

Prerequisite: SPAN 211.

**SPAN 215 Intermediate Spanish Conversation I 3 (3,0,0,0)**

Designed to continue and improve the oral communication and listening skills of the student who has completed SPAN 212 or has the equivalent knowledge.

**SPAN 216 Intermediate Spanish Conversation II 3 (3,0,0,0)**

Designed to continue and improve the oral communication and listening skills of the student who has completed SPAN 212 or SPAN 215 or has the equivalent knowledge.



**SPAN 223 Spanish Caribbean Culture 3 (3,0,0,0)**

This course examines historical, cultural, and social developments of the Spanish Caribbean from pre-Hispanic times to the present. Topics include history, traditions, ethnicity, literature, arts, religion, politics, music, and food. (Same as LAS 223.)

**SPAN 224 Mexican Culture 3 (3,0,0,0)**

This course focuses on elements that contribute to the formation of the culture and identity of the Mexican nation: history, religion, music, art, food, movies and TV, traditions, celebrations and folklore, social realities, and the relationship with the U.S. Taught in English. (Same as LAS 224.)

**SPAN 226 Spanish for Heritage Speakers I 3 (3,0,0,0)**

Designed for students who have an informal training in Spanish, but little or no formal instruction. Emphasis on grammar, transfer of literacy skills, vocabulary enrichment and cultural awareness.

**SPAN 227 Spanish for Heritage Speakers II 3 (3,0,0,0)**

Designed for students who have an informal training in Spanish, but little or no formal instruction. This course continues to examine the topics and skills from SPAN 226; emphasis on grammar, transfer of literacy skills, vocabulary enrichment and cultural awareness.

### Surgical Technology

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**SRGT 101B Introduction to Surgical Technology 1 (1,0,0,0)**

Roles and responsibilities of the Surgical Technologist are discussed, defined, and explored. Includes hands-on demonstrations pertaining to the field of Surgical Technology. Discussion of the educational requirements, certifications, job description, and job outlook of the profession.

**SRGT 103B Pharmacology for the Surgical Technologist 2 (2,0,0,0)**

Scientific principles of biological science, pharmacology, and anesthetic agents. Defines the rationale for the use of specific drugs, their therapeutic effects and major side effects on the surgical patient, and how they may alter or influence surgical intervention.

Prerequisite: Acceptance into the program.

**SRGT 105B Surgical Interventions I 5 (4,3,0,0)**

Introduces knowledge of specific basic surgical procedures routinely performed in the operating room. Practical experience in basic core surgical procedures will be performed, practiced, and evaluated in preparation for entry into the clinical practicum in surgical procedures.

**SRGT 106B Surgical Fundamentals I 3 (3,0,0,0)**

Surgical indications, principles of asepsis, ethical, legal, and moral responsibilities, as well as safe patient care, principles of operating room techniques (including hazards in the surgical suite), and biotechnological sciences are defined.

**SRGT 108B Central Services Practicum 0.5 (0,0,4,0)**

The student will be directly involved in the cleansing, sorting, wrapping, packaging and sterilization of surgical instrumentation and supplies. The student will gain an understanding of the functions of central supply and surgical support staff in relation to the preparation and coordination of sterile supplies.

Prerequisite: SRGT 103B and 105B and 106B and 114B.

**SRGT 114B Principles and Practices of Surgical Technology I 3 (2,3,0,0)**

Basic concepts necessary to establish, maintain, and coordinate methods required for good patient care preoperatively, intraoperatively, and postoperatively. Principles of operating room techniques and surgical indications are included.

**SRGT 204B Principles and Practices of Surgical Technology II 3 (2,3,0,0)**

Defines proper protocol for performance in other roles in the surgical suite. Further understanding of patient care to include laboratory results, specimen care, vital signs, diagnosis, preps and shaving, catheterization, and wound care and classifications. Understand and define proper protocols for emergency situations in the surgical suite.

Prerequisite: SRGT 114B.

**SRGT 205B Surgical Interventions II 5 (4,3,0,0)**

Expanding skills to include specialty surgical procedures routinely performed in the operating room. Practical experience in specialty surgical procedures will be performed, practiced, and evaluated.

Prerequisite: SRGT 105B.

**SRGT 206B Surgical Fundamentals II 3 (3,0,0,0)**

Focus on the professional aspects of the field. With emphasis on psychosocial behaviors necessary to function as an entry-level Surgical Technologist.

Prerequisite: SRGT 106B.

**SRGT 207B Clinical Practicum I 4 (0,0,24,0)**

The student will be assigned to specific preceptors to perform in the function of a surgical technologist. The student will actively assist in selection of equipment and supplies, perform surgical scrub, and become a functioning member of the sterile team. The student will progress through specific basic core surgical specialties developing and enhancing skills needed to function as a practicing surgical technologist.

Prerequisite: SRGT 108B.

**SRGT 210B Clinical Practicum II 3 (0,0,16,0)**

Student will progress through progressively complex procedures gaining experience and competency in the position of the Surgical Technologist.

Prerequisite: SRGT 207B.



## Statistics

### **STAT 152 Introduction to Statistics 3 (3,0,0,0)**

Basic probability and statistical methods with applications (possibly with computers and the internet); correlation, descriptive statistics, experiments, graphical presentation of data, hypothesis and significance testing, linear regression, point and interval estimation, sampling, and/or other related and special topics.

Prerequisite: A grade of C or better in either MATH 124 or 126 or 128; or a satisfactory ACT/SAT/Placement Test score.

## Travel and Convention Administration

### **TCA 100B Concierge Management – Business Operations and Customer Service 3 (3,0,0,0)**

This course is an overview of professional duties of corporate, business and hospitality concierges. Focus will be on interpersonal relationships, guest transactions, customer and concierge services.

### **TCA 101B Concierge Software Applications and Operations 3 (3,0,0,0)**

This course is designed to familiarize students with the fundamentals of a comprehensive software program. The student will learn how to access information, manage events, use the logbook and message center, as well as establish patron profiles and administrative functions.

### **TCA 110 Introduction to the Convention Industry 3 (3,0,0,0)**

Overview of the convention industry, including meetings, trade shows, conferences and incentive travel. Role of the suppliers to the industry also covered. Course provides practical insights into the role of association and corporate meeting planners.

### **TCA 141 Travel and Tourism I 3 (3,0,0,0)**

Survey of travel and tourism; focus on concepts, terminology, demographics, financial significance and trends.

### **TCA 180 Hotel, Restaurant and Casino Marketing 3 (3,0,0,0)**

An introduction to the marketing of hotels, restaurants and casinos. Special attention is given to sales, public relations, advertising, promotions, merchandising and entertainment.

### **TCA 183 Conference and Convention Planning 3 (3,0,0,0)**

Practical insight into the different types of conferences and conventions, the types of organizations that stage such events and how to reach and sell to these different groups. Students will learn how to analyze a hotel and convention property along with other venues, and how to successfully service the various segments of the meeting planning industry.

### **TCA 188 Special Events Planning 3 (3,0,0,0)**

Overview of special event planning for events such as festivals, fairs, fund raisers, family occasions, civic celebrations, athletic competitions, parades, and theme parties. Students will learn organizational skills, and creativity in the design, planning, marketing, and staging of an event.

### **TCA 190 Introduction to Destination Marketing 3 (3,0,0,0)**

Study of Convention and Visitors Bureaus on a domestic level and National Tourism Organizations on an international level to examine economic impact of visitor markets and advertising, promotion, sales and public relations.

### **TCA 200 Airlines Reservations 3 (3,0,0,0)**

An introduction to Computer Reservation Systems (CRS) used in the airline/travel agent industries. Emphasis will be on specialized airline computer terminology.

### **TCA 201 Hospitality Career Development 3 (3,0,0,0)**

Prepares students for fulfilling balanced careers as hospitality professionals. Takes a strategic orientation to career planning (3 to 5 years) by facilitating students developing a personal mission statement and relevant strategies for designing and living a satisfying whole life.

Prerequisite: HMD 101; and ENG 100 or 101 or 113.

### **TCA 221 Hospitality Accounting I 3 (3,0,0,0)**

Hospitality accounting principles and practices pursuant to the industry's uniform system of accounts.

Prerequisite: MATH 104B and MATH 124 or above.

### **TCA 222 Wedding Planning 3 (3,0,0,0)**

Students will learn the business of wedding planning to include creating a guest list, hiring vendors, and creating a beautiful wedding event. Students will gain practical knowledge of traditional, non-traditional, and destination wedding planning.

### **TCA 225 Introduction to International Tourism 3 (3,0,0,0)**

Study of international travel and tourism. Focuses on the economic, social, political and environmental considerations of international tourism management and development. International tourist destinations are explored.

### **TCA 241 Travel and Tourism II 3 (3,0,0,0)**

Evaluates the economic, social and political impact of tourism and travel, including markets, transportation, media, destination development and the interrelationship of cooperating agencies.



**TCA 242 Travel Industry Operations 3 (3,0,0,0)**

Examination of services and functions of retail and wholesale travel agencies. Agency administration, ticketing, accounting, promotion, travel counseling, selling, and procedures will be covered. Field trips will supplement classroom discussions.

**TCA 251 Tourism and Convention Externship 3 (0,0,0,8)**

On-site career orientation and training program in the following areas: convention/meeting/trade shows, transportation fields, destination management/marketing, hospitality/casinos, accounting/finance, club, hotel catering, entertainment, theme parks or tourism.

**TCA 276 Introduction to Trade Show Operations 3 (3,0,0,0)**

Overview of the trade show industry. Students will learn how to develop, plan, create and evaluate domestic and international trade shows. Students will also learn how to promote and sell to attendees and exhibitors.

**TCA 289 Introduction to Corporate Meetings and Events 3 (3,0,0,0)**

Students will learn how to become successful corporate meeting planners. Students will be able to produce and market a variety of industry functions such as company events, new product/service launches, customer relations functions, and tools to evaluate an event performance.

**TCA 295 Work Experience in Tourism and Convention Industry 1 (0,0,0,1)**

In addition to the academic requirements, the Department of Hospitality Management requires 200 hours of acceptable employment in the hospitality industry. This work experience will be measured qualitatively as well as quantitatively. The work experience requirement should be met during the school year or in summers. Students who plan to transfer to UNLV will be able to transfer a maximum of 500 hours of employment toward UNLV's 1000-hour employment requirement. International students must go to the office of International Student Services to verify employment eligibility and obtain authorization. This course can be repeated up to up to a maximum of four credits. Grade will be given upon verification of employment.

## Thai

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**THAI 101 Basics of Thai I 3 (3,0,0,0)**

Introduction to Thai language and culture. A course focusing on spoken communication and the development of language skills in listening, speaking, and structural analysis. Emphasis on the student's acquisition and control of the basic sound structures and simple sentences. A vocabulary of Thai-English words developed. Oral emphasis.

**THAI 111 First Year Thai I 4 (4,0,0,0)**

The development of language skills in listening, speaking, reading and writing; structural analysis. Oral Emphasis.

## Theatre

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**THTR 100 Introduction to Theatre 3 (3,0,0,0)**

Explores theatre as a cultural attribute of world society. Special focus on theatre as an expression of culture, a representation of international themes, and its contribution to the development of civilization.

**THTR 101 Stand-Up Comedy 3 (3,0,0,0)**

An introductory course focusing on writing and solo performance of comedic work. Students will witness contemporary stand-up comics, study the psychological effects of comedy, and develop their own unique comedic writing and performance style that will culminate in performances. May be repeated four times for credit.

**THTR 105 Introduction to Acting I 3 (3,0,0,0)**

Introductory acting class focusing on the process of acting through the use of games, exercises, monologues, and short partnered scenes. This class is intended for non-theatre majors.

**THTR 133 Fundamentals of Directing 3 (3,0,0,0)**

Introduction to the process of directing for the stage. Attention will be paid to script analysis, conceptualization of a play, ground plans, working with designers, planning rehearsals, visual composition of the stage, blocking actors, and the practical experience of directing actors and casting a play.

Prerequisite: THTR 199 (or taken concurrently).

**THTR 199 Play Structure and Analysis 3 (3,0,0,0)**

Identification and analysis of key elements of dramatic structure and text analysis necessary for theatrical realization from the point of view of the playwright, director, actor, and designer using plays from a variety of genres.

**THTR 200 Introduction to Design/Technology 3 (3,0,0,0)**

Introduction to the basic design and technical components of theatrical production, including understanding effective tools for designer communication and drafting standards. Through lecture, projects, and discussion, students will attain a basic understanding of the collaborative nature of production.

**THTR 201 Costume Design I 1 (0,1,0,0)**

Covers costume design for the performing arts. Major concerns of the stage costume designer addressed including: research methodology, the creation of period style, and the importance of both visual and verbal communication in the collaborative process.

Prerequisite: Instructor approval .

**THTR 204 Theatre Technology I 3 (3,0,0,0)**

Fundamentals of technical theatre production with emphasis on scenic and lighting tools and techniques. This course requires participation in shop or run crews for departmental productions.

Corequisite: THTR 208D



**THTR 208A Acting Practicum 1 (0,3,0,0)**

Introductory practicum in which students perform in a departmental theatre production. Students must audition and be cast before enrolling in credits. May be repeated two times for credit.

Prerequisite: Students must audition and be cast before enrolling for credit.

**THTR 208C Costume Practicum 1 (0,3,0,0)**

Introduction to fundamentals of costume construction techniques through practical application. May be repeated two times for credit.

**THTR 208D Scenery Practicum 1 (0,3,0,0)**

Introduction to fundamentals of scenic and lighting stagecraft through practical application in the department's scene shop. May be repeated two times for credit.

**THTR 208E Special Topics Practicum 1 (0,3,0,0)**

Student serves in a special capacity for a departmental theatre production, e.g., stage manager, assistant stage manager, house manager, assistant director, master electrician, dramaturg, choreographer, etc. May be repeated two times for credit.

Prerequisite: Instructor approval

**THTR 211 Stage Makeup Design 3 (3,0,0,0)**

A study of designing and applying makeup for the stage/television/film, including exploration in theory, character analysis, materials, and techniques.

**THTR 214 Costume Technology 3 (3,0,0,0)**

Fundamentals of technical theatre production, with emphasis on familiarization with costume technology, and organization and construction techniques. A hands on experience in sewing, pattern use, and costume construction. This course requires participation in shop or run crews for departmental productions.

Corequisite: THTR 208C

**THTR 230 Voice and Movement for the Actor I 3 (3,0,0,0)**

Voice and movement technique for the actor. Focuses on developing alignment, coordination, strength, flexibility, and mobility of the actor's voice and body.

**THTR 231 Acting Studio I: Technique 3 (3,0,0,0)**

An intensive studio approach to introduce the student to the basic principles of acting and its artistry through vocal and physical awareness, character development and analysis, and scene study. This class is intended for declared Theatre majors or students pursuing the CoA in Acting.

Prerequisite: THTR 199 or Instructor approval.

**THTR 235 Design Aesthetics and Drafting for the Theatre 3 (3,0,0,0)**

Fundamentals of visual composition, design theory, and drafting techniques for the stage.

Prerequisite: THTR 199 and 204; or Instructor approval.

**THTR 247 Beginning Improvisation 3 (3,0,0,0)**

Exploration of basic theatrical improvisation for non-theatre majors. Focuses on spontaneity, creating environment, character development, and structure of a scene. Variety of theatrical styles and improvisational techniques explored. May be repeated four times for credit.

**THTR 255 Collaborative Theatre and Performance 3 (3,0,0,0)**

This course focuses on creating original theatrical pieces using new play development and devised theatre through the collaboration of playwrights, actors, and directors. Original theatrical pieces will be performed in the New Play Festival for CSN Theatre. Required: Night and weekend attendance during tech week and performances of New Play Festival. Intended for Theatre majors and those pursuing CoA in Acting. May be repeated four times for credit.

Prerequisite: THTR 199 and students must audition and be cast before enrolling for credit.

**THTR 280 Acting Studio I: Audition 3 (3,0,0,0)**

Students will prepare audition repertoire, prepare monologues and work on audition technique for auditions, cold readings, and call backs. Intended for Theatre majors and those pursuing the CoA in Acting.

Prerequisite: THTR 231 or Instructor approval.

**THTR 285 Acting Studio I: Private Coaching 1 (0,0,0,0.5)**

Private instruction of Theatre majors and those pursuing the CoA in Acting. Students will analyze and perform monologues and prepare audition repertoire. Required: Performance in THTR 275 and jury at the end of the semester. May be repeated up to 6 credits.

Prerequisite: THTR 199 and 231; or Instructor approval.

**Urban Studies****URST 210 Introduction to Policy Analysis 3 (3,0,0,0)**

Explores the nature of policy analysis and the methods used to analyze public policies, and the factors shaping the actual utilization of policy analysis. Examines the policy making process, including federal, state, and intergovernmental decision making, and policy dilemmas in various areas. Teaches basic policy analysis skills and the role of analysts in decision processes.





**URST 241 Governance in the United States:  
An Urban Focus 3 (3,0,0,0)**

This course will use a diverse set of learning experiences to present a general introduction to the principle components of governance in the United States. Completion of this course aids the student in understanding the relationship between individuals and their governments (with a focus on local government).

**URST 250 Local Government  
Administration 3 (3,0,0,0)**

American local governments have changed tremendously over the years. Constantly evolving and always colorful, they provide an opportune research setting. Provides an in-depth study of the political processes and administrative procedures used in local governments. Comparative analysis of relevant actors and strategies across communities is incorporated.

**Veterinary Technology****VETT 101B Introduction to Animal  
Health Technology 1 (1,0,0,0)**

Orientation to career field covering ethical and legal aspects, maintenance and treatment of animals, species and breed identification, professional organization/publications, and introduction to veterinary terminology.

Prerequisite: Admission to Veterinary Technology Program.

**VETT 105B Veterinary  
Medical Terminology 1 (1,0,0,0)**

An introduction to word derivation and formation of medical terminology with emphasis on applications in veterinary medicine.

Prerequisite: Admission to Veterinary Technology Program.

**VETT 110B Clinical Anatomy  
and Physiology I 4 (2,6,0,0)**

Study of the comparative anatomy of common domestic and selected exotic animals using the feline as the study animal. This course includes a laboratory section and it is required that the lecture and laboratory are successfully completed independently.

Prerequisite: Admission to Veterinary Technology Program.

**VETT 112B Clinical Anatomy  
and Physiology II 4 (2,6,0,0)**

Continuation from VETT 110B of the study of the comparative anatomy and physiology of common domestic and selected exotic animals utilizing the feline as the study animal. This course includes a lecture and laboratory section. It is required that the lecture and laboratory are successfully completed independently.

Prerequisite: Admission to the Veterinary Technology Program and VETT 110B.

**VETT 125B Veterinary Office  
Clinic Procedures 2 (2,0,0,0)**

Roles and responsibilities of veterinary technicians in veterinary practice, along with instruction on scheduling, client relations, basic bookkeeping and business procedures, veterinary medical records, inventory control, personnel management, basic animal husbandry, and veterinary assisting.

Prerequisite: Admission to Veterinary Technology Program.

**VETT 127B Basic Animal Nursing 4 (3,3,0,0)**

An introduction to the basics in veterinary medical nursing: animal husbandry, animal behavior, restraint, physical examination, medication administration (various routes), aseptic techniques and procedures, first aid, sanitation and disinfection, and hazards in veterinary practice.

Prerequisite: Admission to Veterinary Technology Program.

**VETT 203B Veterinary Clinical/  
General Pathology 4 (3,3,0,0)**

Basic urinalysis, hematological evaluations, identification of common blood, internal and external parasites, basic serological testing, essentials of common companion animal diseases, necropsy techniques, and other related laboratory evaluations.

Prerequisite: Admission to Veterinary Technology Program.

Corequisite: VETT 209B.

**VETT 205B Diagnostic Imaging 2 (1,3,0,0)**

An introduction to the physics of x-rays and radiographic image production. Basic operation of imaging equipment with associated safety precautions, image processing, development of a technique chart, technique evaluation, principles of patient positioning, and alternative imaging techniques will be discussed.

Prerequisite: Admission to the Veterinary Technology Program.

**VETT 208B Lab Animal  
Science and Exotics 2 (1,3,0,0)**

Create a better understanding and wider knowledge of experimental methods and special procedures specific to research and non-companion animals. Regulatory and research requirements for their care, and treatment will be reviewed. Review of the anatomical and physiological characteristics of laboratory and exotic animals.

Prerequisite: Admission to Veterinary Technology Program.

**VETT 209B Parasitology 1 (1,0,0,0)**

Familiarize the student with the most commonly encountered internal and external parasites of domestic animals. In part basic knowledge of parasitic life cycles and explore the intricacies of the host parasite relationship. Detail major diagnostic procedures necessary to identify important parasites. Describe the diseases, public health significance, and economic consequences of parasitic infection and infestation.

Prerequisite: Admission into the Veterinary Technology Program.

Corequisite: VETT 203.



**VETT 211B Animal Nutrition 2 (2,0,0,0)**

Normal and therapeutic nutritional needs of various species of animals and ration formulation are covered.

Prerequisite: Admission to Veterinary Technology Program.

**VETT 225B Pharmacology and Toxicology 2 (2,0,0,0)**

Basics of veterinary pharmacology and toxicology; handling, storing and documenting controlled substances; vaccinology; routes and methods of drug administration based on a systems-oriented approach.

Prerequisite: Admission to Veterinary Technology Program.

**VETT 227B Advanced Animal Nursing 4 (3,3,0,0)**

Continuing study of animal nursing practices with emphasis on advanced clinical procedures and patient care. Advanced techniques in animal restraint, first aid, bandaging techniques, wound management, fluid therapy, transfusion medicine, physical therapy, pain management, patient monitoring, neonatal care, medical and surgical nursing, and oncology will be covered.

Prerequisite: Admission to Veterinary Technology program and VETT 127.

**VETT 230B Principles of Asepsis 1 (1,0,0,0)**

An introduction to the principles of asepsis, preparation and operating room protocols and etiquette, surgical preparation of the patient and operating room personnel, and surgical instrumentation.

Prerequisite: Admission to Veterinary Technology Program.

**VETT 235B Surgical, Anesthesia and Dental Procedures 4 (3,3,0,0)**

Introduction to preanesthesia, anesthesia support and pain management; continuation of veterinary surgical assisting and post-op care; veterinary dental procedures/techniques.

Prerequisite: Admission to Veterinary Technology Program.

**VETT 240B Large Animal Procedures 2 (2,0,0,0)**

Veterinary procedures for large animals, restraint safety, nursing consideration, surgical preparation and assisting.

Prerequisite: Admission to Veterinary Technology Program.

**VETT 250B Critical Care/ER 3 (2,3,0,0)**

An introduction to technical skills needed to care for critically ill patients. Supportive therapies and procedures for emergency care and discussion of types of emergencies that might be seen.

Prerequisite: Admission to Veterinary Technology Program.

**VETT 260B Directed Clinical Practice I 2 (0,0,8,0)**

Development of clinical skills through direct clinical associations with specific cooperating veterinary practices.

Prerequisite: Admission to Veterinary Technology Program.

**VETT 265B Directed Clinical Practice II 2 (0,0,8,0)**

Development of clinical skills through direct clinical associations with specific cooperating veterinary practices.

Prerequisite: Admission to Veterinary Technology Program.

**VETT 266B Directed Clinical Practice for Certificate of Achievement Students 2 (0,0,8,0)**

Animal health theory and skills applied in a clinical setting. Graded Pass/Fail.

Prerequisite: Admission to Veterinary Technology Alternate Program.

**VETT 299B Independent Study 1-4 (1-4,0,0,0)**

Covers selected topics of interest to veterinary technician students.

Prerequisite: Instructor approval.

**Videography****VID 100B Movies and Media 3 (3,0,0,0)**

Analysis of movies and media, the meaning of images and stories, cinematic narrative structure, genre criticism and auteur theory. A consideration of these core issues: What is film and what are its elements; What is film grammar? What are film stories, plots? How can we talk about films in ways that enrich our understanding and appreciation of both the art form and culture?

**VID 101B Film Directing Styles 3 (3,0,0,0)**

Analysis of the film director's craft; the director's relationship with key creative collaborators of the production team, directing techniques and styles, and sampling of representative cinematic movements.

**VID 102B World Cinema 3 (3,0,0,0)**

Survey of contemporary world cinema. Class also involves an examination of seminal movements in world cinema and the influence and impact of these movements on the history of cinema. We will view and engage in discussions about films from around the world – studying them from stylistic, historical, and economic perspectives.

**VID 103B American Independent Cinema 3 (3,0,0,0)**

This course studies the evolution of independent filmmaking through a close examination of cinematic and narrative styles, emerging technologies, independent financing, production budgets, exhibition, and distribution.

**VID 104B Introduction to American Cinema 3 (2,2,0,0)**

This course examines a deeper understanding of how television and movies communicate to an audience. Analysis of the creative process and film content will be investigated through home viewing of films, textbook readings, online screenplay readings, and online dialogue.





**VID 201B Sound for Video and Film 3 (2,2,0,0)**

Explores sound theory and the basics of motion picture production and post-production sound. This course will demonstrate the importance and impact of sound in film, and give students the opportunity to use digital audio recorders, microphones, and booms to successfully record sound for film and video. Post-production techniques such as foley, ADR, and sound effects will also be studied using various software applications.

**VID 202B Screenplay Adaptation 3 (3,0,0,0)**

Study of how to adapt previously existing source materials from other media (short story, novella, novel, theater play, true-life story, comic book, song lyric, video game, TV show) into cinematic/screenplay form. Also how to adapt/update/contemporize previously made films (American or foreign) into new works – remakes. Learning will involve case studies of illustrative types of films and readings of source material.

Prerequisite: VID 111B or Instructor approval.

**VID 203B Directing the Actor for Film 3 (2,2,0,0)**

This class analyzes the craft of directing actors for the film/video medium, and gives students a working knowledge of acting theory and practice from the director's point of view, as well as directing and choreographing actors specifically for the camera.

Prerequisite VID 110B or Instructor approval.

**VID 210B Videography and Film II 3 (2,2,0,0)**

Intermediate filmmaking techniques using portable video cameras and editing equipment. Stresses next step in production planning, lighting, directing, sound recording, editing, script writing, and sequence shooting techniques.

Prerequisite: VID 110B.

**VID 211B Film Screenwriting II 3 (2,2,0,0)**

Advanced techniques for finishing the screenplay with emphasis on plot structure, character development, rewriting scenes, sharpening and polishing dialogue. You will also learn to do script coverage. This class assumes students have a keen interest in films/TV and a desire to write feature length scripts.

Prerequisite: VID 111B or Instructor approval.

**VID 212B RED Camera Bootcamp 1 (0.5,2,0,0)**

Students will setup and operate a RED camera system. Additional emphasis will be on using 4K Raw files to obtain feature film quality image capture and post-production color grading using REDCINE-X software.

Prerequisite: VID 200B or Instructor approval.

**VID 213B Lighting for Video and Film 3 (2,2,0,0)**

Introduction to control and modification of natural light and studio applications of tungsten and quartz lighting equipment, as it applies to film and video. Lighting terminology, tools of the trade and lighting techniques for specific needs, like people, rooms, action and products will be taught.

Prerequisite: VID 110B with a C grade or better; and MATH 104B; or Instructor approval.

**VID 214B Adobe Speedgrade Bootcamp 1 (2,2,0,0)**

Theory and practical application of color correction and grading as part of a digital post-production workflow. Five-week course focuses on the essentials of using Adobe Premiere Pro and Adobe Speedgrade, and uses existing, near-complete editing projects. No shooting, capturing or editing will be performed in class. Lectures, demonstrations and class projects cover a variety of common situations which require color correction and grading. While portions of this class are non-exclusive in nature, much of this class is platform-specific. All necessary media will be supplied.

Prerequisite: VID 107B and 110B.

**VID 215B Video Editing II 3 (2,2,0,0)**

Advanced methods in non-linear editing. Skills will be developed further and moved towards the artistic side of editing. Practical application in story and theme manipulation will be among the course projects including story manipulation through editing decisions. Editing and manipulation of existing material will be required during the course. While the editing software used will be Adobe Premiere Pro, instruction will be non-exclusive in nature.

Prerequisite: VID 115B and Instructor approval.

**VID 216B Documentary Film Production II 3 (2,2,0,0)**

Intermediate principles of documentary film making with emphasis on producing and shooting in the Electronic News Gathering (ENG) style. Each student will create two short documentary films.

Prerequisites: VID 110B or Instructor approval.

**VID 217B Event Videography 3 (2,2,0,0)**

Topical event programs produced from pre-production to post-production with emphasis on client/producer interaction, deal memos, industry release forms, and music copyright.

Prerequisite: VID 200B or Instructor approval.

**VID 218B Sound for Video and Film II 3 (2,1,0,0)**

This course moves beyond the principles of capturing and editing audio elements in VID 201B by emphasizing the manipulation of sound elements for the purpose of enhancing sonic output. Manipulate and process sound elements through the use of synthesizers and other digital software platforms to create more depth to projects. Focuses on placement of the overall sonic theme of a film project.

Prerequisite: VID 201B or Instructor approval.

**VID 219B Production Design for Film and TV 3 (2,1,0,0)**

Focuses on the decisions production designers make in developing the concepts for narrative film and television. Employ intuitive analysis and visual storytelling theory. Incorporate schematic analysis techniques, mood & tone reference materials, color and materials boards, thumbnails, freehand sketches, and scale models. Also covers what production designers do to move a design concept from script to drawing board, what inspires their aesthetic choices, and how designs evolve.

Prerequisite: VID 110B or Instructor approval.



**VID 220B Cinematography II 3 (2,2,0,0)**

An advanced investigation into the visual language and technical aspects of motion picture film and digital filmmaking. This course places additional emphasis on Super 16mm film, HD cameras, lighting and grip equipment. In addition, techniques for assuring the highest possible quality image and sound.

Prerequisite: VID 200B or Instructor approval.

**VID 221B Adobe Encore Bootcamp 1 (0.5,2,0,0)**

Practical application and use of Adobe's DVD Authoring program. Five-week course focuses on the essentials of using Adobe Premiere Pro, Adobe After Effects, and Adobe Encore using existing, completed editing projects. No shooting, capturing, or editing will be performed in class. Lectures, demonstrations, and class projects cover a variety of information relating to the DVD authoring workflow. Students will create from scratch an entire DVD project, complete with custom, full motion menus. All necessary media will be supplied. Familiarity with Adobe Premiere Pro is required, and a working knowledge of Adobe After Effects is recommended.

Prerequisite: VID 107B and 115B.

**VID 222B Producer Bootcamp 1 (0.5,2,0,0)**

The Producer's Class is a course on the fundamentals of motion picture producing. This course will have a strong emphasis on projects with a micro/mini budget, and will focus on production conception, management, and delivery of a picture to the marketplace.

Prerequisite: VID 110B

**VID 250B Motion Graphics for Video and Film 3 (2,2,0,0)**

Advanced digital editing and compositing techniques featuring Adobe's After Effects, and Adobe's Photoshop. This course provides an overview of the entire workflow, from import to export, as well as detailed coverage of each stage, including hands-on experience of 2D compositing techniques, animation, titles, graphic overlays, masking, and color correction.

Prerequisite: VID 115B or Instructor approval.

**VID 251B Visual Effects for Video and Film 3 (2,1,0,0)**

Basic theory, history, and practice of creating special visual effects for film. Live-action footage will be shot on green screen to study proper techniques to capture and track footage to add special effects in post-production. Employ applications such as Photoshop, After Effects, Element 3D, Blender, and Mocha AE to create visual effects to enhance student films. Develop chroma key, compositing, rotoscoping techniques, and 3D compositing skills.

Prerequisite: VID 110B or Instructor approval.

**VID 260B Adobe Production Suite Integration 3 (2,2,0,0)**

Practical application and use of Adobe Production Suite, focusing on unlocking the power of this collection of programs by exploring Adobe's Dynamic Link. Instruction, demonstrations, and class projects will feature partially completed sequences, which students will finish using Adobe Premiere Pro as their starting point. Completing projects will require incorporating Adobe's other programs such as After Effects, Photoshop, Encore, Audition, Speedgrade, and Media Encoder and integrating them into a single, cohesive workflow. No shooting or capturing will be performed in class. All necessary media will be supplied.

Prerequisite: VID 107B and 115B.

**VID 262B Rock Video Production 3 (2,2,0,0)**

This course covers the basics of conceptualizing and producing a concert/performance style Rock music video from beginning to end. Proper camera placement and lighting as well as timing of visual elements to fit musical pace will be emphasized. Editing techniques of successful music videos with regard to artistic flair and production design will be studied. All of these skillsets will be used in the production of one or more rock videos.

Prerequisite: VID 110B and 200B.

**VID 263B Wedding Videography 3 (2,2,0,0)**

Basic video techniques, use of portable equipment, and in-camera editing techniques for wedding videography. Stresses camera usage, production planning, storyboarding, lighting, directing and editing with commercial photography/wedding applications.

Prerequisite: VID 110B and 200B; or Instructor approval.

**VID 285B Videography and Film Internship 1-4 (0,0,0,1-4)**

On-the-job experience performing work projects reflecting industry assignments for which academic credit is earned.

Prerequisite: Instructor permission.

**VID 289B Special Topics for Video and Film 1-3 (0,3-9,0,0)**

Special topics related to Videography and Film. Topics will vary depending on student and industry demand. This course may be repeated up to a maximum of nine credits.

Prerequisite: VID 110B.

**VID 290B Video Portfolio 3 (2,2,0,0)**

Provides an opportunity for highly-motivated students capable of self-directed study in creating original moving image works in a range of genres. The instructor will facilitate in-class critiques and provide conceptual, aesthetic, and technical feedback and support on an individual basis for the development and manufacture of a useful video portfolio. For Videography and Film majors only.

Prerequisite: Instructor approval.



## Welding

### **WELD 100B Introduction to Welding 4 (3,3,0,0)**

Provides classroom and laboratory instruction in basic welding and cutting procedures with an introduction into each process using related lab exercises. Emphasis placed on proper set up and use of welding machines and the related tools used in industry. Introduces students to the importance and application of safety procedures in a welding environment. Students will set and adjust various machines, torches and tools as well as understand their functionality, limits and capabilities in a safe work environment.

### **WELD 115B Welding Inspection and Testing Principles 3 (2,2,0,0)**

Provides classroom and laboratory instruction in common destructive and non-destructive testing methods used to determine the quality and soundness of welds.

### **WELD 116B Ultrasonic Non-destructive Testing - Level I 3 (2,2,0,0)**

Covers ultrasonic testing of material, including theory, terminology, principles, and applications. Course meets 40-hour requirement for ASNT Level I Inspector.

Prerequisite: WELD 115B.

### **WELD 130B Welding Support Equipment Operations 3 (2,2,0,0)**

Covers service, set up, operation and troubleshooting of welding support equipment including: ironworkers, drill presses, mag drills, grinders, bandsaws, cranes and rigging.

### **WELD 131B Blueprint Reading, Layout and Sketching 3 (3,0,0,0)**

Provides instruction in the interpretation, reading and understanding of blueprints, drawings, weld symbols, fabrication layout and free hand sketching commonly used in the welding trade.

### **WELD 132B Oxy/Fuel, Plasma and Carbon Arc-Air Cutting Operations 2 (1,3,0,0)**

Provides classroom and laboratory instruction in oxy/fuel, plasma and CAC-A cutting applications. Topics include lay-out, base metal preparation, and machine and hand cutting operations.

### **WELD 133B SMAW (Stick) 4 (1,6,0,0)**

Provides classroom and laboratory instruction in skill development and proficiency of Shielded Metal Arc Welding of mild steel plate in all positions.

### **WELD 134B GTAW (Tig) 4 (1,6,0,0)**

Provides classroom and laboratory instruction in the proper techniques, skill development and proficiency of GTA Welding of mild steel, aluminum and stainless steel gage material in various positions.

### **WELD 135B GMAW (Mig) 2 (1,3,0,0)**

Provides classroom and laboratory instruction in the proper techniques, skill development and proficiency of GMAW of mild steel and aluminum in various positions.

### **WELD 137B FCAW (Flux Core) 2 (1,3,0,0)**

Provides classroom and laboratory instruction in the proper techniques, skill development and proficiency of FCAW-S and FCAW-G of mild steel in various positions.

### **WELD 154B D1.1 Structural Welding Code 3 (3,0,0,0)**

Provides extensive classroom instruction on the AWS D1.1 Structural Welding Code, covering topics such as Procedure Qualification Records, Weld Procedure Specifications, welded connections, fabrication and inspection.

### **WELD 214B Fabrication Layout 3 (1,4,0,0)**

Provides instruction on basic fabrication principles, safety, measurement, layout techniques using blueprints and weld symbols and the use of common fabrication tools and associated equipment.

Prerequisite: WELD 131B and 132B and 133B; or Instructor approval.

### **WELD 218B Pipe Welding Procedures 4 (1,6,0,0)**

Provides instruction on the proper techniques, skill development and proficiency of pipe welding using SMAW fillet and pipe groove welds on plate/pipe in all positions.

Prerequisite: WELD 133B or Instructor approval.

### **WELD 219B Ornamental Iron 3 (1,6,0,0)**

This class is designed for the do-it-yourself individual who wishes to use his or her knowledge of welding as an addition to his/her own field in the art of ornamental iron fabrication.

### **WELD 223B Special Topics in Welding Technology 2-6 (1-5,3-6,0,0)**

Custom designed course content in welding technology with variable credit for managers, technicians, engineers, labor groups and others. Variable start times and dates.

### **WELD 240B Advanced GTAW 4 (1,6,0,0)**

Provides instruction on the proper techniques and skill development of advanced GTAW with emphasis on pipe fillet and groove welds on plate/pipe in various positions.

### **WELD 270B Welding Certification Preparation 1 (0,2,0,0)**

This course prepares experienced welders for qualification (certification) to welding codes AWS, ASME IX, and API 1104. May be taken up to a maximum of four credits.

Prerequisite: Instructor approval.



## Women's Studies

### **WMST 101 Introduction to Women's Studies 3 (3,0,0,0)**

Introduces the methods and concerns of women's studies drawing from history, psychology, sociology, law and language concerns.

### **WMST 113 Gender, Race, and Class 3 (3,0,0,0)**

Interdisciplinary, cross-cultural survey of the ways in which gender interacts with race, age, class, and sexuality to shape human consciousness and determine the social organization of human society.

### **WMST 113H Gender, Race, and Class – Honors 3 (3,0,0,0)**

Interdisciplinary, cross-cultural survey of the ways in which gender interacts with race, age, class, and sexuality to shape human consciousness and determine the social organization of human society. Emphasis on interactive learning entailing an examination of the self and one's environment through the use of reflective writing and dialogue.

Prerequisite: Admission to the Honors program.

### **WMST 180 The Economics of Discrimination 3 (3,0,0,0)**

The Discrimination of Economics investigates the economic causes, effects, and remedies of discrimination based on categories such as age, ethnicity, gender, religion, national origin, or sexuality. (Same as ECON 180.)

### **WMST 247 Philosophy and Women 3 (3,0,0,0)**

Variety of philosophical writings by or about women, from Plato to the present, focusing on such key concepts as nature, equality, dignity, freedom, love and self-realization. May include feminist critiques of the Western philosophical tradition. (Same as PHIL 247.)

### **WMST 250 Introduction to Feminist Theory 3 (3,0,0,0)**

American feminist thought in its diversity, examining the differences among liberal, radical, Marxist, socialist, psychoanalytic, and postmodern feminism and the challenges to each posed by women of color.

### **WMST 255 The American Women's Movement 3 (3,0,0,0)**

Introduction to American women's history and politics focusing on race, gender, and class relations, and the legal and economic status of women.

### **WMST 275 Introduction to Marriage and Family 3 (3,0,0,0)**

Survey of issues in the sociology of the family including the intersection of race/ethnicity, class, and gender. (Same as SOC 275.)

### **WMST 285 History of Witchcraft 3 (3,0,0,0)**

The study of the figure of the witch from ancient times to the present, and the historical, religious, and social context from which it emerged. The course includes Paleolithic and Neolithic religion, witches in ancient cultures, formulation of the Christian witch concept, the witch hunt in Early Modern Europe and in the British North American colonies, and modern Neo-Pagan witchcraft. (Same as HIST 285.)

### **WMST 286 Goddess Traditions 3 (3,0,0,0)**

A study of goddess images in a variety of cultures from prehistory to the modern age including the history, values, beliefs, practices, and ethics systems associated with goddess imagery. (Same as HIST 286.)

### **WMST 295 Special Topics 1-3 (1-3,0,0,0)**

Intensive study of a major topic in women's studies. May be repeated to a maximum of 6 credits.

## Water/Wastewater Treatment

### **WWT 101B Wastewater Treatment I 3 (3,0,0,0)**

This course will cover the safe operation of municipal wastewater treatment facilities. Topics include flow measurement, screening, grit removal, sedimentation basins, solids handling, secondary biological processes and disinfection.

### **WWT 102B Wastewater Treatment II 3 (3,0,0,0)**

This course will cover conventional activated sludge, solids handling, effluent disposal, laboratory procedures, analysis and presentation of data, records and record keeping.

Prerequisite: WWT 101B.

### **WWT 103B Environmental Laws and Regulations 3 (3,0,0,0)**

This course will provide an overview of the development and contents of current federal, state and local laws, regulations and ordinances that control the handling, storage, and disposal of hazardous materials and wastes.

### **WWT 105B Water Treatment Operations I 3 (3,0,0,0)**

This course will cover the safe operation of water treatment facilities. Topics include waste resources, reservoir management, coagulation and flocculation, sedimentation, filtration, disinfection, corrosion control and taste and odor control.

### **WWT 106B Water Treatment Operations II 3 (3,0,0,0)**

This course will emphasize the skills needed by operators of conventional surface water treatment facilities, including operator's responsibilities for the administration and management of treatment facilities.

Prerequisite: WWT 105B.



**WWT 110B Introduction to Hazardous Materials Management 3 (3,0,0,0)**

This course will provide a general overview of the hazardous materials management industry with emphasis on hazardous materials, hazardous waste, laws and regulations, and its effects on the environment and worker health and safety.

**WWT 115B Water/Wastewater Mathematics I 3 (3,0,0,0)**

This course will cover mathematical skills used routinely in the water and wastewater treatment industry, including areas, volumes, flows, velocities, loading rates and dosages.

Prerequisite: WWT 101B or WWT 105B.

Corequisite: MATH 104B.

**WWT 120B Pump Operation and Maintenance 3 (3,0,0,0)**

This course will cover the operation and maintenance of pumps, motors and valves in water and wastewater treatment facilities including collection and distribution systems.

**WWT 201B Wastewater Treatment III 3 (3,0,0,0)**

This course will cover odor control, activated sludge, operational control alternatives, solids handling and disposal, phosphorus removal, nitrogen removal, and wastewater reclamation.

Prerequisite: WWT 102B.

**WWT 205B Water Distribution 3 (3,0,0,0)**

This course will cover the safe operation and maintenance of water treatment facilities. Topics include storage facilities, distribution facilities, water quality considerations, disinfection and safety.

**WWT 210B Industrial Pretreatment Inspections 3 (3,0,0,0)**

This course will provide an overview of the safe and efficient procedures of industrial facilities pretreatment inspections and to provide industrial users with an understanding of local limit requirements.

**WWT 215B Water/Wastewater Mathematics II 3 (3,0,0,0)**

This course will include calculation for treatment efficiencies, pumping rates and pump calibration, horsepower, effluent disposal, solids handling and activated sludge.

Prerequisite: WWT 115B.

**WWT 220B Water Quality Analysis 4 (2,4,0,0)**

This course will cover lab tests required for water and wastewater treatment process control, including analytical procedures, quality control, and interpretation of data.

Prerequisite: WWT 101B or 105B; and WWT 115B.

**WWT 225B Wastewater Collection Systems 3 (3,0,0,0)**

This course will cover wastewater collection systems operators and managers, including operation, maintenance, design, construction, pumps, motors and safety procedures. This course is oriented towards the wastewater collection certification exam.

Prerequisite: WWT 215B.

**WWT 230B Current Issues 3 (3,0,0,0)**

Discussion of current issues in the field of water and wastewater technology.

Prerequisite: COM 115.

