

# COURSE DESCRIPTIONS

## ACCOUNTING (ACCT, ACNT)

### **ACCT 2401 PRINCIPLES OF FINANCIAL ACCOUNTING**

**3 lec/3 lab (4 Cr.)**

Introduction to generally accepted accounting principles and financial reporting for corporations.

### **ACCT 2402 PRINCIPLES OF MANAGERIAL ACCOUNTING**

**3 lec/3 lab (4 Cr.)**

Introduction to generally accepted accounting principles and financial reporting for corporations. Introduction to budgeting, cost accounting, and management accounting for decision-making. Prerequisite: ACCT 2401 or accounting program coordinator approval.

### **ACNT 1303 INTRODUCTION TO ACCOUNTING I**

**2 lec/3 lab (3 Cr.)**

A study of analyzing, classifying, and recording business transactions in a manual and computerized environment. Emphasis on understanding the complete accounting cycle and preparing financial statements, bank reconciliations, and payroll.

### **ACNT 1304 INTRODUCTION TO ACCOUNTING II**

**2 lec/3 lab (3 Cr.)**

A study of accounting for merchandising, notes payable, notes receivable, valuation of receivables and equipment, and valuation of inventories in a manual and computerized environment. Prerequisite: ACNT 1303 or program coordinator approval.

### **ACNT 1329 PAYROLL AND BUSINESS TAX ACCOUNTING**

**3 lec (3 Cr.)**

A study of payroll procedures, taxing entities, and reporting requirements of local, state, and federal taxing authorities in a manual and computerized environment. Prerequisite ACNT 1303 or program coordinator approval.

### **ACNT 1331 FEDERAL INCOME TAX: INDIVIDUAL**

**3 lec (3 Cr.)**

Basic instruction in the tax laws as currently implemented by the Internal Revenue Service providing a working knowledge of preparing taxes for the individual.

### **ACNT 1368 PRACTICUM (OR FIELD EXPERIENCE) - ACCOUNTING/TECHNOLOGY/TECH**

**21 external learning experience (3 Cr.)**  
Practical general training and experiences in the work-

place. The college with the employer develops and documents an individualized plan for the student. The plan relates the workplace training and experiences to the student's general and technical course of study. The guided external experience may be paid or unpaid. Capstone must be taken in degree plan sequence and requires 336 hours (21 hours per week) of workplace training. Contact accounting program coordinator the semester prior to enrolling.

### **ACNT 1411 INTRODUCTION TO COMPUTERIZED ACCOUNTING**

**3 lec /3 lab (4 Cr.)**

Introduction to utilizing the computer in maintaining accounting records, making management decisions, and processing common business applications with primary emphasis on a general ledger package. Prerequisite: ACNT 1303 or ACCT 2401 or accounting program coordinator approval.

### **ACNT 2331 INTERNAL CONTROL & AUDITING**

**3 lec. (3 Cr.)**

A study of internal control and auditing standards and processing used by internal auditors, managers, and independent public accountants. This course will analyze internal control procedures; describe auditing standards and procedures and the audit reports; and prepare audit working papers and related schedules.

### **ACNT 2409 COST ACCOUNTING**

**4 lec (4 Cr.)**

A study of budgeting and cost control systems including a detailed study of manufacturing cost accounts and reports, job order costing, and process costing. Includes introduction to alternative costing methods such as activity-based and just-in-time costing. Prerequisite ACNT 1303 and ACNT 1304 or accounting program coordinator approval.

## AG TECH (AGAH, AGME, DEMR)

### **AGME 1207 AGRICULTURE EQUIPMENT SKILLS AND TOOLS**

**1 lec/3 lab (2 Cr.)**

Introduction to hand tool and shop equipment skills and safety.

### **AGME 1209 EQUIPMENT REPAIR**

**1 lec/3 lab (2 Cr.)**

Introduction to the skills required for maintenance, repair, and renovation of equipment.

**AGME 1353 HARVESTING EQUIPMENT****2 lec/3 lab (3 Cr.)**

Theory of operation, and service and adjustment techniques for harvesting equipment.

**DEMR 1166, 2166 PRACTICUM - DIESEL ENGINE MECHANIC AND REPAIRER****39 External learning experience (1 Cr.)**

Practical, general training and experiences in the workplace. The college with the employer develop and document an individualized plan for the student. The plan relates the workplace training and experiences to the student's general and technical course of study. The guided external experience may be paid or unpaid. This course may be repeated if topics and learning outcomes vary.

**DEMR 1225 SMALL AIR-COOLED ENGINES****1 lec/3 lab (2 Cr.)**

Fundamentals of air-cooled engines including repair and testing. This course includes the theory of operation, diagnosis and repair, predelivery procedures including assembly and adjustment of attachments, and add-on accessories of small power equipment utilized in lawn, turf, garden, and the rental equipment industry. The course includes the study of both 2-cycle and 4-cycle engines.

**DEMR 1405 BASIC ELECTRICAL SYSTEMS****3 lec/2 lab (4 Cr.)**

An introduction to the basic principles of electrical systems of diesel and gas equipment with emphasis on starters, alternators, batteries, and regulators.

**DEMR 1323 HEATING, VENTILATION, AND AIR CONDITIONING (HVAC) TROUBLESHOOTING****2 lec/3 lab (3 Cr.)**

Introduction to heating, ventilation, and air conditioning theory, testing, and repair. Emphasis on refrigerant reclamation, safety procedures, specialized tools, and repairs. Refrigerant recovery/recycling and ozone layer protection procedures are emphasized. Students, upon passing the air conditioning certification test, will be granted air conditioning certification.

**DEMR 1391 SPECIAL TOPICS IN DIESEL ENGINE MECHANIC AND REPAIRER (J.D.****Information Systems)****2 lec/3 lab (3 Cr.)**

Topics address recently identified current events, skills, knowledge, and/or attitudes and behaviors pertinent to the technology or occupation and relevant to the professional development of the student.

**DEMR 1391 SPECIAL TOPICS IN DIESEL ENGINE MECHANIC AND REPAIRER (J.D.****Harvesting Equipment II)****2 lec/3 lab (3 Cr.)**

Topics address recently identified current events, skills, knowledge, and/or attitudes and behaviors pertinent to the technology or occupation and relevant to the professional development of the student.

**DEMR 1391 SPECIAL TOPICS IN DIESEL ENGINE MECHANIC AND REPAIRER (J.D.****Agricultural Management Solutions)****2 lec/3 lab (3 Cr.)**

Topics address recently identified current events, skills, knowledge, and/or attitudes and behaviors pertinent to the technology or occupation and relevant to the professional development of the student.

**DEMR 1406 DIESEL ENGINE I****2 lec/6 lab (4 Cr.)**

An introduction to the basic principles of diesel engines and systems.

**DEMR 1416 BASIC HYDRAULICS****2 lec/6 lab (3 Cr.)**

An introduction to the fundamentals of hydraulics including components and related systems of tractors and farm equipment. The operation, testing, repair and adjustment of the hydraulic components are emphasized. The use of technical language and JIC symbols are also stressed. Safe operation with high pressure oil is also covered.

**DEMR 1421 POWER TRAIN I****2 lec/6 lab (4 Cr.)**

Introduction to fundamentals, repair, and theory of power trains including clutches, transmissions, drive shafts, and differentials of tractors and farm equipment. Emphasis on troubleshooting and repair.

**DEMR 1449 DIESEL ENGINE II****2 lec/6 lab (4 Cr.)**

An in-depth coverage of disassembly, repair, identification, evaluation, and reassembly of diesel engines. This course includes the principles of design and construction of heavy-duty engines used throughout the power equipment and agriculture industries. Emphasis is placed on engine chamber design and injection systems. Principles and theories are studied by running, testing, diagnosing, disassembling and reassembling components, systems, and engines. Safety is emphasized throughout the course.

**DEMR 1466 PRACTICUM - DIESEL ENGINE MECHANIC AND REPAIRER****39 external learning experience (4 Cr.)**

Practical general training and experiences in the workplace. The college with the employer develop and docu-

ment an individualized plan for the student. The plan relates the workplace training and experiences to the student's general and technical course of study. The guided external experiences may be paid or unpaid.

**DEMR 2335 ADVANCED HYDRAULICS**  
**2 lec/3 lab (3 Cr.)**

Advanced study of hydraulic systems and components including diagnostics and testing of hydraulic systems, which will involve electronics, electro-hydraulic and computer controlled systems as well.

## **AGRICULTURE (AGRI)**

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**AGRI 1131 INTRO TO AGRICULTURE INDUSTRY**  
**1 lec (1 Cr.)**

An overview of agriculture: orientation, career guidance, and current trends.

**AGRI 1307 AGRONOMY**  
**2 lec/2 lab (3 Cr.)**

Principles and practices in the development, production, and management of field crops including plant breeding, plant diseases, soils, insect control, and weed control.

**AGRI 1315 HORTICULTURE**  
**2 lec/2 lab (3 Cr.)**

Survey of the general field of horticulture. Growth, fruiting habits, and propagation practices stressed. Study of principles of plant propagation including vegetables, ornamentals, pecans, and fruits. Methods of starting plants from seeds, cuttings, layers, buds, grafts, and bulbs are used. Sites, soils, fertilizers, and other factors influencing growth of plants are studied. Hydroponic growing techniques and indoor plant growth are also covered.

**AGRI 1319 ANIMAL SCIENCE**  
**2 lec/2 lab (3 Cr.)**

Basic course of study on various types, breeds, market classes and grades of livestock. Factors influencing efficiency in feeding, marketing, breeding, care and management are considered.

**AGRI 2301 AGRICULTURAL POWER UNITS**  
**2 lec/2 lab (3 Cr.)**

Fundamentals of internal combustion engines: gasoline, diesel, and liquefied petroleum. Maintenance and adjustments of the electrical, ignition, fuel, lubricating, and cooling systems.

**AGRI 2317 AGRICULTURAL ECONOMICS**  
**3 lec (3 Cr.)**

Survey of farm business and its organization and management; structure and operation of the marketing system; principles of use of credit in money management; lending agencies and their policies in regard to farm loans; and cost of using borrowed capital.

**AGRI 2321 LIVESTOCK EVALUATION**  
**3 lec/3 lab (3 Cr.)**

Selection, evaluation, and classification of livestock and livestock products.

**AGRI 2403 AGRICULTURAL CONSTRUCTION**  
**2 lec/4 lab (4 Cr.)**

Selection, use and maintenance of hand and power tools; arc and oxy-acetylene welding; and construction materials and principles.

**SMER 1166 SMALL MECHANICAL MECHANIC AND REPAIR, PRACTICUM I**

**39 external learning experience (1 Cr.)**

Practical, general workplace training supported by an internship at a sponsoring John Deere dealership. The college with the employer develop and document an individualized plan for the student. The plan relates to the workplace training and experiences to the student's general and technical course of study. This internship may be paid or unpaid.

**SMER 1291 SMALL ENGINE MECHANIC AND REPAIR**

**2 lec/3 lab (3 Cr.)**

Topics address recently identified and current events, skill, knowledge, and/or attitudes and behaviors pertinent to the technology or occupation and relevant to the professional development of the student.

**SMER 1391 SMALL ENGINE MECHANIC AND REPAIR. (SPECIAL TOPICS)**

**2 lec/3 lab (3 Cr.)**

Topics address recently identified and current events, skill, knowledge, and/or attitudes and behaviors pertinent to the technology or occupation and relevant to the professional development of the student.

**SMER 1466 SMALL MECHANICAL MECHANIC AND REPAIR, PRACTICUM I**

**39 external learning experience (4 Cr.)**

Practical, general workplace training supported by an internship at a sponsoring John Deere dealership. The college with the employer develop and document an individualized plan for the student. The plan relates to the workplace training and experiences to the student's general and technical course of study. This internship may be paid or unpaid.

**SMER 2166 SMALL MECHANICAL MECHANIC AND REPAIR, PRACTICUM I**

**39 External Learning Experience (1 Cr.)**

Practical, general workplace training supported by an internship at a sponsoring John Deere dealership. The college with the employer develop and document an individualized plan for the student. The plan relates to the workplace training and experiences to the student's gen-

eral and technical course of study. This internship may be paid or unpaid.

**SMER 2337 ADVANCED EQUIPMENT SERVICE**  
**2 lec/3 lab (3 Cr.)**

Advanced study in areas of specialization in marine units, motorcycles, all-terrain vehicles, or outdoor power equipment.

## **AMERICAN SIGN LANGUAGE (SLNG)**

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**SLNG 1401 BEGINNING AMERICAN SIGN LANGUAGE I**

**3 lec/3 lab (4 Cr.)**

An introduction to the basic skills in production and comprehension of American Sign Language (ASL). Includes the manual alphabet and numbers. Develops conversational ability, culturally appropriate behaviors, and exposes students to ASL grammar.

**SLNG 1402 BEGINNING AMERICAN SIGN LANGUAGE II**

**3 lec/3 lab (4 Cr.)**

Integrates and refines expressive and receptive skills in American Sign Language (ASL), including recognition of sociolinguistic variation. A practice-oriented approach to language acquisition including the use of multimedia. Prerequisite: SLNG 1401.

## **ANTHROPOLOGY (ANTH)**

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**ANTH 2346 GENERAL ANTHROPOLOGY**

**3 lec (3 Cr.)**

A survey of the diversity and unity of humankind. Introduces the major subfields: physical anthropology, archeology and cultural anthropology.

## **ART (ARTS)**

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**ARTS 1301 ART APPRECIATION**

**3 lec (3 Cr.)**

A course open to all students. Emphasis is on enjoyment of the visual aspects of art in day-to-day living. Included are a study of the key works of art in history, a study of the elements and principles of art, an introduction to the different media employed by artists, critical evaluation of selected works, and trips to galleries and museums. Satisfies visual arts core requirement.

**ARTS 1303 ART HISTORY I**

**3 lec (3 Cr.)**

This is a lecture class that examines the painting, sculpture, architecture and other art forms from the prehistoric to the Gothic timeframe. The interrelationship of early

cultural thoughts, events and developments with artistic thought and output is emphasized. Satisfies visual arts core requirement.

**ARTS 1304 ART HISTORY II**

**3 lec (3 Cr.)**

This is a lecture class that examines the painting, sculpture, architecture and other art forms from the Renaissance to the present. The development of the concept of artistic movement is emphasized. Satisfies visual arts core requirement.

**ARTS 1311 DESIGN I**

**3 lec/3 lab (3 Cr.)**

This course stresses the fundamental concepts of two-dimensional design. The elements and principles of design are the tools with which class problems and assignments are creatively solved and new ideas are conceived. Color theory is thoroughly explored. Satisfies visual arts core requirement.

**ARTS 1312 DESIGN II**

**3 lec/3 lab (3 Cr.)**

This course applies the elements and principles of design toward creative problem-solving in three-dimensional projects. ARTS 1311 is not a prerequisite for 1312, but is recommended for art majors. Satisfies visual arts core requirement.

**ARTS 1316 DRAWING I**

**3 lec/3 lab (3 Cr.)**

This is a studio course of basic drawing skills based on analytical, responsive and conceptual approaches. Portfolio preparation is included as an integral part of the study. Satisfies visual arts core requirement.

**ARTS 1317 DRAWING II**

**3 lec/3 lab (3 Cr.)**

This studio class helps to guide the more advanced student as well as the student who is seeking to transfer toward the development of personal work and portfolio presentation. The student will continue to explore media possibilities and techniques. Satisfies visual arts core requirement. Prerequisite: Arts 1316.

**ARTS 2313 DESIGN COMMUNICATION I**

**3 lec/3 lab (3 Cr.)**

This is a studio course stressing the use of computer assistance in the processes and techniques of advertising, graphic design and illustration. Introduction to basic terminology, media, conceptualization, and procedures are included.

**ARTS 2314 DESIGN COMMUNICATION II**

**3 lec/3 lab (3 Cr.)**

This is a studio course stressing the use of computer assistance in the processes and techniques of advertising, graphic design and illustration. It incorporates more

complex and advanced approaches to creative problem-solving assignments and gears a student toward practical experience in the workplace.

**ARTS 2316 PAINTING I**  
**2 lec/4 lab (3 Cr.)**

This studio course explores the techniques of painting media with special emphasis on color theory, painting composition with varied subject matter, traditional studio practice, and includes an introduction to exhibition practices. Satisfies visual arts core requirement.

**ARTS 2317 PAINTING II**  
**2 lec/4 lab (3 Cr.)**

Along with the continued emphasis on the mastery of basic painting skills, the student is directed toward the development of personal statement and style. Instruction also helps prepare the student for continued painting study in other programs. Satisfies visual arts core requirement. Prerequisite: Arts 1316.

**ARTS 2326 SCULPTURE I**  
**2 lec/4 lab (3 Cr.)**

Studio course exploring sculptural approaches in a variety of media.

**ARTS 2333 PRINTMAKING I**  
**2 lec/4 lab (3 Cr.)**

Exploration of ideas using various printmaking processes.

**ARTS 2346 CERAMICS I**  
**3 lec/3 lab (3 Cr.)**

Introduction to ceramic processes. Basic materials and techniques, hand building, use of bisque forms, glazing and firing procedures, and introduction to the use of the potter's wheel. Outside work required.

**ARTS 2347 CERAMICS II**

Further investigation into ceramic processes and techniques. Prerequisite: ARTS 2346.

**ARTS 2356 PHOTOGRAPHY I**  
**3 lec/3 lab (3 Cr.)**

Introductory studio course in basic photographic processes and techniques. Includes camera operation, black and white camera techniques, knowledge of chemistry and presentation skills. Emphasis on design, history, and contemporary trends as a means of developing an understanding of photographic aesthetics. Outside work required.

**ARTS 2357 PHOTOGRAPHY II**  
**3 lec/3 lab (3 Cr.)**

Further investigation into photographic processes and techniques. Prerequisite: ARTS 2356 or approval of instructor.

**ARTS 2471 COOPERATIVE EDUCATION I**  
**1 lec/20 lab (4 Cr.)**

Work experience is open to students if their major career field is occupational education. Under supervision of instructor and employer, student is provided the opportunity to work for wages and is evaluated by instructor and employer. Prerequisite: approval of instructor.

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**BIOLOGY (BIOL)**

**BIOL 1322 NUTRITION AND DIET THERAPY**  
**3 lec (3 Cr.)**

Nutrients including functions, food sources, digestion, absorption, and metabolism with application to normal and therapeutic human nutritional needs.

**BIOL 1406 GENERAL BIOLOGY I**  
**3 lec/3 lab (4 Cr.)**

A survey course of contemporary biology for students majoring in the sciences. Topics emphasized will include the chemical basis of life, structure and function of cells, energy transformations, molecular biology, and genetics.

**BIOL 1407 GENERAL BIOLOGY II**  
**3 lec/3 lab (4 Cr.)**

A survey of current biological concepts for students majoring in the sciences. Emphasis will be placed on topics that include evolution, biological diversity, ecology, and comparative structure and function of organisms.

**BIOL 1411 GENERAL BOTANY**  
**3 lec/3 lab (4 Cr.)**

The study of structure and function of plant cells, tissues, and organs. An evolutionary survey and life histories of the following representative groups: algae, fungi, mosses, liverworts, ferns, and seed-producing organisms. Plants reproductive and functional interactions with their environment and with man will be included. Selected laboratory exercises will complement the lecture topics. Prerequisite: high school biology.

**BIOL 1413 GENERAL ZOOLOGY**  
**3 lec/3 lab (4 Cr.)**

Designed for individuals majoring in biology and those pursuing a course of study in preprofessional areas as dentistry, medicine, veterinary science, and ecology as they relate to animal form and function, diversity, behavior, and evolution. Prerequisite: high school biology.

**BIOL 2401 ANATOMY AND PHYSIOLOGY I**  
**3 lec/3 lab (4 Cr.)**

Human anatomy and physiology are studied using a body systems approach with emphasis on the relationships between form and function at the gross and microscopic levels. Topics include anatomical and directional terminology, cell and cell chemistry, tissues, integumentary

system, skeletal system, articulations, muscular system, and nervous system. Laboratory work includes physiological and anatomical studies of mammals. No prerequisite, but BIOL 1406, BIOL 2404 or equivalent recommended.

**BIOL 2402 ANATOMY AND PHYSIOLOGY II**  
**3 lec/3 lab (4 Cr.)**

Continuation of BIOL 2401. Topics include endocrine system, cardiovascular system, respiratory system, lymphatic system, digestive system, urinary system, fluids and electrolytes, reproductive system, development, and genetics. Laboratory work includes physiological and anatomical studies of mammals. Prerequisite: BIOL 2401 or consent of instructor.

**BIOL 2404 INTRODUCTION TO ANATOMY AND PHYSIOLOGY**  
**3 lec/3 lab (4 Cr.)**

Survey course of the structure and function of human anatomy and physiology including basic chemistry, cell structure and function, tissues and organ systems of the human body. Serves as a foundation course for allied health disciplines and is recommended as a prerequisite for BIOL 2401 and BIOL 2420.

**BIOL 2406 ENVIRONMENTAL BIOLOGY**  
**3 lec/3 lab (4 Cr.)**

Survey and introduction to man's environmental problems of life. Emphasis on pollution, population dynamics, and conservation of resources. Stress placed on concept of environmental interdependence with man as a part of, rather than separate from, the ecosystem.

**BIOL 2420 MICROBIOLOGY**  
**3 lec/3 lab (4 Cr.)**

Topics include morphology and physiology of microorganisms and taxonomy of representative groups of pathogenic bacteria and viruses. Additional subjects consist of immunology, antimicrobial agents, and infectious diseases. Laboratory procedures employ staining techniques, culturing and sensitivity determinations. Identification of unknown microorganisms and other procedures related to microorganisms will be employed. No prerequisite, but BIOL 1406, BIOL 2404, or equivalent recommended.

**BUSINESS (BUSG, BUSI, BMGT,  
HRPO, MRKG)**

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**BMGT 1303 PRINCIPLES OF MANAGEMENT**  
**3 lec (3 Cr.)**

Concepts, terminology, principles, theory, and issues that are the substance of the practice of management.

**BMGT 1331 PRODUCTION AND OPERATIONS  
MANAGEMENT**

**3 lec (3 Cr.)**

Fundamentals of the various techniques used in the practice of production management to include location, design, and resource allocation.

**BMGT 1368, 1369, 2368 PRACTICUM - BUSINESS  
ADMINISTRATION AND MANAGEMENT, GENERAL  
21 external learning experience (3 Cr.)**

Practical, general training and experiences in the workplace. The college with the employer develops and documents an individualized plan for the student. The plan relates the workplace training and experiences to the student's general and technical course of study. The guided external experiences may be paid or unpaid.

**BMGT 1391 SPECIAL TOPICS IN BUSINESS  
ADMINISTRATION AND MANAGEMENT**

**3 lec (3 Cr.)**

Topics address recently identified current events, skills, knowledge, and/or attitudes and behaviors pertinent to the technology or occupation and relevant to the professional development of the student.

**BMGT 2309 LEADERSHIP**

**3 lec (3 Cr.)**

Concepts of leadership and its relationship to management. Helps prepare the student with leadership and communication skills needed to inspire and influence. Topics include the application of leadership skills in relation to the dynamic leader-follower-situational environment, creating an organizational culture and environment for successful leadership at all levels, the role of leadership in the strategic management process including analysis of how organizations develop and implement strategy for achieving organizational objectives in a changing environment, and leadership's role in the strategic, tactical, and operational planning process.

**BMGT 2311 MANAGEMENT OF CHANGE**

**3 lec (3 Cr.)**

Knowledge skills and tools that enable a leader/organization to facilitate change in a pro-active participative style.

**BMGT 2371 PRINCIPLES OF PERSONNEL  
MANAGEMENT FOR MENTAL RETARDATION  
WORKERS**

**3 lec (3 Cr.)**

Introductory course focusing on basic management situations and problems that the new or potential manager is likely to encounter. The course provides specific grounding in procedures used at mental retardation centers in preparing job descriptions, evaluating work standards, using the Positive Performance Program, interviewing prospective employees and using the TDMHMR Management by Objectives system. It also allows the

student to gain familiarity with management skills and communications techniques needed to be an effective manager.

**BMGT 2488 INTERNSHIP I - MANAGEMENT TRAINING I**

**1 lec/20 lab (4 Cr.)**

Establishes a work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts at Mexia State School. The learning plan is developed between the college and the employer. Mexia State School employees only.

**BUSG 2309 SMALL BUSINESS MANAGEMENT**

**3 lec (3 Cr.)**

A course on how to start and operate a small business. Topics include facts about small business, essential management skills, how to prepare a business plan, financial needs, marketing strategies, and legal issues.

**BUSG 2366, 2367 PRACTICUM (OR FIELD EXPERIENCE) - BUSINESS/COMMERCE, GENERAL**

**21 external learning experience (3 Cr.)**  
Practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student. (This guided external experience may be paid or unpaid.)

**BUSI 1301 BUSINESS PRINCIPLES**

**3 lec (3 Cr.)**

Introduction to the role of business in modern society. Includes overview of business operations, analysis of the specialized fields within the business organization, and development of a business vocabulary.

**BUSI 1307 PERSONAL FINANCE**

**3 lec (3 Cr.)**

A study of the financial problems encountered in managing family financial affairs. Topics include financial security for the family, budgeting, use of credit, home ownership, financial issues, and savings and investment planning.

**BUSI 2301 BUSINESS LAW**

**3 lec (3 Cr.)**

Principles of law that form the legal framework for business activity. Nature and scope of law; court systems; law of contracts; principal and agent; business organizations including partnerships and corporations.

**HRPO 2301 HUMAN RESOURCES MANAGEMENT**

**3 lec (3 Cr.)**

Behavioral and legal approaches to the management of human resources in organizations.

**HRPO 2307 ORGANIZATIONAL BEHAVIOR**

**3 lec (3 Cr.)**

The analysis and application of organizational theory, group dynamics, motivation theory, leadership concepts, and the integration of interdisciplinary concepts from the behavioral sciences.

**MRKG 1301 CUSTOMER RELATIONS**

**3 lec (3 Cr.)**

Topics include general principles of customer service including skills, knowledge, attitudes, and behaviors pertinent to the professional development of the student. Emphasis will be placed on the importance of teamwork in an organization, internal and external customer relationships, professional communication, and resolving customer complaints. How to recover from and win back the angry customer and delivering exceptional customer service will be stressed.

**MRKG 1302 PRINCIPLES OF RETAILING**

**3 lec (3 Cr.)**

Introduction to the retailing environment and its relationship to consumer demographics, trends, and traditional/nontraditional retailing markets. The employment of retailing techniques and the factors that influence modern retailing will be addressed.

**MRKG 1311 PRINCIPLES OF MARKETING**

**3 lec (3 Cr.)**

Introduction to basic marketing functions; identification of consumer and organizational needs; explanation of economic, psychological, sociological, and global issues; and description and analysis of the importance of marketing research.

**BUSINESS INFORMATION TECHNOLOGY**

**(HITT, HPRS, MRMT, POFL, POFL, POFM, POFT)**

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**HITT 1305 MEDICAL TERMINOLOGY I**

**2 lec/3 lab (3 Cr.)**

Study of word origin and structure through the introduction of prefixes, suffixes, root words, plurals, abbreviations and symbols, surgical procedures, medical specialties, and diagnostic procedures.

**HITT 2346 ADVANCED MEDICAL CODING**

**2 lec/3 lab (3 Cr.)**

ICD and CPT coding rules, conventions, and guidelines in complex case studies. Investigation of government regulations and changes in health care reporting. Prerequisite: POFM 1300.

**HPRS 2321 MEDICAL LAW AND ETHICS FOR HEALTH PROFESSIONALS**

**3 lec (3 Cr.)**

Principles, procedures, and regulations governing the legal and ethical relationships among physicians, patients, and health care professionals. Includes current ethical issues related to the various health care professions and patient confidentiality.

**MRMT 1307 MEDICAL TRANSCRIPTION I**

**2 lec/3 lab (3 Cr.)**

Fundamentals of medical transcription with hands-on experience in transcribing physician dictation including basic reports such as history and physicals, discharge summaries, consultations, operative reports, and other medical reports. Utilizes transcribing and information processing equipment compatible with industry standards. Designed to develop speed and accuracy. Prerequisite: HITT 1305 and POFI 2401 or equivalent.

**POFI 1301 COMPUTER APPLICATIONS I**

**2 lec/3 lab (3 Cr.)**

Overview of computer applications (the Windows operating system, Microsoft Word, and Microsoft Excel) including current terminology and technology. Introduction to computer hardware, software applications, and procedures. Prerequisite: POFT 1127 or POFT 1329

**POFI 1341 COMPUTER APPLICATIONS II**

**2 lec/3 lab (3 Cr.)**

Continued study of current computer terminology and technology. Advanced skill development in computer hardware, software applications, (Microsoft PowerPoint and Microsoft Access), and procedures. Prerequisite: POFI 1301.

**POFI 2401 WORD PROCESSING**

**3 lec/3 lab (4 Cr.)**

Word processing software focusing on business applications. Prerequisite: POFT 1329, POFI 1301, or COSC 1401.

**POFI 2431 DESKTOP PUBLISHING**

**3 lec/3 lab (4 Cr.)**

In-depth coverage of desktop publishing terminology, text editing, and use of design principles. Emphasis on layout techniques, graphics, multiple page displays, and business applications. Prerequisite: POFI 2401 or equivalent.

**POFL 1303 LEGAL OFFICE PROCEDURES**

**2 lec/3 lab (3 Cr.)**

Fundamental administrative duties of support personnel in a law office including issues involving operating within social, organizational, and technological systems. Prerequisite: POFL 1305 and POFI 2401 or equivalent.

**POFL 1305 LEGAL TERMINOLOGY**

**3 lec (3 Cr.)**

An overview of the areas of law and legal professions including spelling, pronunciation, and definition of legal terms.

**POFL 1359 LEGAL TRANSCRIPTION**

**2 lec/3 lab (3 Cr.)**

Course presents legal transcription techniques. Prerequisite: POFL 1305 and POFI 2401 or equivalent.

**POFM 1300 MEDICAL CODING BASICS**

**2 lec/3 lab (3 Cr.)**

Presentation and application of basic coding rules, principles, guidelines, and conventions utilizing various coding systems. Prerequisite: HITT 1305, HPRS 2301, basic keyboarding and computer skills.

**POFM 1317 MEDICAL ADMINISTRATIVE SUPPORT**

**2 lec/3 lab (3 Cr.)**

Instruction in medical office procedures including appointment scheduling, medical records creation and maintenance, telephone communications, coding, billing, collecting, and third-party reimbursement. Prerequisite: HITT 1305 and POFI 2401 or equivalent.

**POFT 1127 INTRODUCTION TO KEYBOARDING**

**1 lec/2 lab (1 Cr.)**

Skills development in keyboarding techniques. Emphasis on the development of acceptable speed and accuracy.

**POFT 1301 BUSINESS ENGLISH**

**2 lec/3 lab (3 Cr.)**

Introduction to a practical application of basic language usage skills with emphasis on fundamentals of writing and editing for business.

**POFT 1313 PROFESSIONAL WORKFORCE**

**3 lec (3 Cr.)**

Preparation for career success including ethics, interpersonal relations, professional attire, and advancement. Prerequisite: POFT 1127 or POFT 1329.

**POFT 1325 BUSINESS MATH AND MACHINE APPLICATIONS**

**2 lec/3 lab (3 Cr.)**

Business math problem-solving skills using office technology.

**POFT 1329 BEGINNING KEYBOARDING**

**2 lec/3 lab (3 Cr.)**

Skills development keyboarding techniques. Emphasis on development of acceptable speed and accuracy levels and formatting basic documents.

**POFT 2203 SPEED AND ACCURACY BUILDING**  
**1 lec/2 lab (2 Cr.)**

Review, correct, and improve keyboarding techniques for the purpose of increasing speed and improving accuracy. Prerequisite: POFT 1329 or instructor approval.

**POFT 2312 BUSINESS CORRESPONDENCE AND COMMUNICATION**

**2 lec/3 lab (3 Cr.)**

Development of writing and presentation skills to help produce effective business communications. Prerequisite: POFT 1301.

**POFT 2431 ADMINISTRATIVE SYSTEMS (CAPSTONE)**

**3 lec/3 lab (4 Cr.)**

Advanced concepts of project management and office procedures integrating software applications.

## **CHEMISTRY (CHEM)**

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**CHEM 1405 INTRODUCTORY CHEMISTRY I**

**3 lec/3 lab (4 Cr.)**

A survey course introducing chemistry to the non-science major, allied health major, and science major who has not taken high school chemistry. Topics include energy, measurement, atoms, molecules, chemical bonding, types of chemical reactions, states of matter, solutions, colloids, rates of reaction, equilibrium, and acids and bases. The relationship of chemistry to daily lives is emphasized.

**CHEM 1407 INTRODUCTORY CHEMISTRY II**

**3 lec/3 lab (4 Cr.)**

Continuation of CHEM 1405 with emphasis on organic chemistry. Topics include a study of nuclear chemistry, the chemical behavior of alkanes, alkenes, alkynes, aromatic compounds, alcohols, phenols, ethers, alkyl halides, aldehydes, ketones, carboxylic acids, esters, amines, and amides. Prerequisite: CHEM 1405.

**CHEM 1411 GENERAL CHEMISTRY I**

**3 lec/3 lab (4 Cr.)**

Fundamental course for the science major. Topics include atomic structure, periodicity of the elements, chemical formulas and equations, nomenclature, stoichiometry, thermochemistry, Lewis formulas, bonding, molecular geometry, kinetic molecular theory, the electronic structure of the atom, liquids and solids, and an introduction to organic chemistry. Course provides a foundation for work in advanced chemistry and related sciences.

Prerequisite: one year of high school chemistry or CHEM 1405, and MTH 1074 or equivalent with grade of at least "C."

**CHEM 1412 GENERAL CHEMISTRY II**

**3 lec/3 lab (4 Cr.)**

Continuation of CHEM 1411 with emphasis on gas laws, aqueous solutions, colligative properties, equilibria, kinetics, acids and bases, coordination compounds, oxidation-reduction, electrochemistry, and nuclear chemistry. Prerequisite: CHEM 1411.

**CHEM 2423 ORGANIC CHEMISTRY I**

**3 lec/4 lab (4 Cr.)**

Fundamentals of the chemistry of carbon compounds designed for students in science and pre-professional programs. Topics include molecular structure and reactivity, functional groups, chemical bonding, stereochemistry, acid-base reactions, free-radical reactions, resonance, inductive and steric effects, reaction mechanisms, and spectroscopy. Prerequisite: CHEM 1412.

**CHEM 2425 ORGANIC CHEMISTRY II**

**3 lec/4 lab (4 Cr.)**

Continuation of CHEM 2423 with emphasis on nucleophilic and electrophilic mechanisms, molecular rearrangements, organic synthesis, spectroscopy, and the chemistry of various functional groups including aromatic hydrocarbons, aldehydes, ketones, carboxylic acids, amines, and carbohydrates. Prerequisite: CHEM 2423.

## **CHILD DEVELOPMENT (CDEC, PMHS, TECA)**

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**CDEC 1303 FAMILY AND THE COMMUNITY**

**3 lec (3 Cr.)**

A study of the relationship between the child, the family, the community, and early childhood educators including a study of parent education, family and community lifestyles, child abuse, and current issues.

**CDEC 1311 INTRODUCTION TO EARLY CHILDHOOD EDUCATION**

**3 lec (3 Cr.)**

An introduction to the profession of early childhood education focusing on developmentally appropriate practices, types of programs, historical perspectives, ethics, and current issues.

**CDEC 1318 NUTRITION, HEALTH AND SAFETY**

**3 lec (3 Cr.)**

A study of nutrition, health, safety, and related activities including skill development in management of issues, guidelines, and practices in nutrition, as well as community health, hygiene, safety, and legal implications. Integration of these principles is applied to a variety of settings.

**CDEC 1319 CHILD GUIDANCE****3 lec (3 Cr.)**

An exploration of common behavior problems of young children in an early childhood setting. Emphasis on positive guidance techniques for effective behavior management. Practical application through direct participation in an early childhood setting.

**CDEC 1321 THE INFANT AND TODDLER****3 lec (3 Cr.)**

A study of appropriate infant and toddler (birth to 3 years) programs including an overview of development, quality caregiving routines, appropriate environments, materials and activities, and teaching/guidance techniques.

**CDEC 1327 RT5 INTRO. TO ACTIVE TREATMENT****3 lec (3 Cr.)**

This course provides competency-based education and training to help prepare students to work with people with mental retardation. Focus is on active treatment, normalization, and the integration of roles in the practical application of relevant concepts.

**CDEC 1345 MR 4 MENTAL DISORDERS****3 lec (3 Cr.)**

This course is a combination of MR 1 and MR 3 classes taught prior to September, 1987. Topics include the Texas Mentally Retarded Persons Act, classification of the mental retarded, causes of mental retardation, and rules and regulations covering the care, treatment, and training of the mentally retarded. Also covered are definitions of normal and abnormal behavior, and topics including neurotic and psychotic behavior, psychopathology, and major treatment methods of emotionally disturbed, mentally retarded people.

**CDEC 1354 CHILD GROWTH AND DEVELOPMENT****3 lec (3 Cr.)**

A study of the principles of normal child growth and development from conception to adolescence. Focuses on physical cognitive, social and emotional domains of development.

**CDEC 1358 RT13 LEARNING ACTIVITIES****3 lec (3 Cr.)**

A study of a variety of learning activities, how they correlate to levels of development, and instruction in the process of designing alternate learning activities based on individual client S.P.O.'s.

**CDEC 1359 CHILDREN WITH SPECIAL NEEDS****3 lec/ (3 Cr.)**

A survey of information regarding children with special needs including possible causes and characteristics of

exceptionalities, educational intervention, available resources, referral processes, and the advocacy role and legislative issues.

**CDEC 1364 PRACTICUM IN CHILD DEVELOPMENT I****21 external learning experience (3 Cr.)**

Practical general training and experiences in the workplace. The college with the employer develop and document an individualized plan for the student. The plan relates the workplace training and experiences to the student's general and technical course of study. The guided external experiences may be paid or unpaid. This course may be repeated if topics and learning outcomes vary.

**CDEC 1365 PRACTICUM IN CHILD DEVELOPMENT I I****21 external learning experience (3 Cr.)**

Practical general training and experiences in the workplace. The college with the employer develop and document an individualized plan for the student. The plan relates the workplace training and experiences to the student's general and technical course of study. The guided external experiences may be paid or unpaid. This course may be repeated if topics and learning outcomes vary.

**CDEC 1371 DORMITORY ADMINISTRATION****3 lec (3 Cr.)**

This course provides competency-based education and training to help prepare students for positions of responsibility in residential life. Focus is on subjects dealing with day-to-day operation of client dormitories. Students will demonstrate principles and skills covered in the written material.

**CDEC 1372 INTERDISCIPLINARY TEAM PROCESS****3 lec (3 Cr.)**

Provides interdisciplinary team members with the skills and knowledge needed for developing and implementing effective habilitation plans. Topics include habilitation concepts and principles, assessment, developing the individualized program plan, the planning process, writing training programs, and active programming.

**CDEC 1395 SPECIAL TOPICS IN EARLY CHILDHOOD PROVIDER****3 lec (3 Cr.)**

Topics address recently identified current events, skills, knowledge and/or attitudes and behaviors pertinent to the technology or occupation and relevant to the professional development of the student.

**CDEC 1413 CURRICULUM RESOURCES FOR EARLY CHILDHOOD PROGRAMS**

**3 lec/3 lab (4 Cr.)**

Fundamentals of curriculum design and implementation in developmentally appropriate programs for young children.

**CDEC 1419 RT 2 INTRODUCTION TO TRAINING AND DOCUMENTATION**

**4 lec (4 Cr.)**

This course provides competency-based education and training to help prepare students to work with people who are mentally retarded. Focus is on the Gentle Teaching model, reinforcement theory, and the implementation and required documentation of behavior plans.

**CDEC 1456 EMERGENT LITERACY FOR EARLY CHILDHOOD**

**3 lec/3 lab (4 Cr.)**

An exploration of principles, methods, and materials for teaching young children language and literacy through a play-based, integrated curriculum.

**CDEC 1457 MATH & SCIENCE FOR EARLY CHILDHOOD**

**3 lec/3 lab (4 Cr.)**

An exploration of principles, methods, and materials for teaching young children math and science concepts through discovery and play.

**CDEC 1458 CREATIVE ARTS FOR EARLY CHILDHOOD**

**3 lec/3 lab (4 Cr.)**

An exploration of principles, methods, and materials for teaching young children music, movement, visual arts, and dramatic play through process-oriented experiences to support divergent thinking.

**CDEC 2326 ADMINISTRATION OF PROGRAMS FOR CHILDREN I**

**3 lec (3 Cr.)**

A practical application of management procedures for early care and education programs including a study of operating, supervising, and evaluating programs. Topics on philosophy, types of programs, policies, fiscal management, regulations, staffing, evaluation, and communication.

**CDEC 2341 THE SCHOOL AGE CHILD**

**3 lec (3 Cr.)**

A study of appropriate age (5 to 13 years) programs including an overview of development, appropriate environments, materials and activities, and teaching/guidance techniques.

**CDEC 2407 MATH AND SCIENCE FOR EARLY CHILDHOOD**

**2 lec/4 lab (4 Cr.)**

An exploration of principles, methods, and materials for teaching children math and science concepts and process skills through discovery and play.

**CDEC 2464 MENTORING FOR MENTAL RETARDATION WORKERS**

**28 hrs. external learning experience (4 Cr.)**

Practical general workplace training supported by an individual learning plan developed by Mexia State School and the college. The plan relates the workplace training and experience to practical application in the care of people with mental retardation.

**CDEC 2467 PRACTICUM IN CHILD DEVELOPMENT AND EARLY CHILDHOOD**

**2 lec/26 lab (4 Cr.)**

Practical general workplace training supported by an individualized learning plan developed by the employer, college and student. The plan relates the workplace training and experiences to the student's general and technical course of study. The guided learning external experiences will be completed at the Mexia State School, and is available for current employees only.

**PMHS 1301 PRE-SERVICE TRAINING**

**3 lab (3 Cr.)**

A better survey of the historical development of social services. Emphasis on current needs, practices, and projected changes. Topics include psychoanalytic theories in regard to mental retardation and children with mental disorders, and special problems faced by people with mental retardation.

**TECA 1303 FAMILY, SCHOOL & COMMUNITY**

**3 lec/1 lab (3 Cr.)**

A study of the child, family, community, and schools, including parent education and involvement, family and community lifestyles, child abuse, and current family life issues. Approved field service is required, 16 hours of which must be in Pre K - 4 schools.

**TECA 1311 EDUCATING YOUNG CHILDREN**

**3 lec/1 lab (3 Cr.)**

An introduction to the education of the young child including developmentally appropriate practices and programs, theoretical and historical perspectives, ethical and professional responsibilities, and current issues. Approved field service is required, 16 hours of which must be in Pre K - 4 schools.

**TECA 1318 WELLNESS OF THE YOUNG CHILD**

**2 lec/2 lab (3 Cr.)**

A study of the factors that impact the well-being of the young child including healthy behavior, food, nutrition,

fitness, and safety practices. Focus on local and national standards and legal implications of relevant policies and regulations. Approved field service is required, 16 hours of which must be in Pre K - 4 schools.

**TECA 1354 CHILD GROWTH AND DEVELOPMENT  
3 lec (3 Cr.)**

A study of the physical, emotional, social, and cognitive factors impacting growth and development of children through adolescence.

**COMPUTER SCIENCE  
(COSC, IMED, INEW, ITCC,  
ITSC, ITSE, ITSW, ITNW)**

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**COSC 1309 LOGIC & DESIGN  
3 lec (3 Cr.)**

A discipline approach to problem solving with structured techniques and representation of algorithms using pseudo code and graphical tools. Discussion of methods for testing, evaluation, and documentation.

**COSC 1401 MICROCOMPUTER APPLICATIONS  
3 lec/3 lab (4 Cr.)**

Introduction to the use of computers as a data processing and problem-solving tool for business. Fundamental concepts, technology, and theory with opportunity to use existing word processing, spreadsheet, database and presentation packages including integration with the Internet, to solve various business-oriented problems.

**COSC 1436 PROGRAMMING FUNDAMENTALS I  
3 lec.3 lab (4 Cr.)**

Introduces the fundamental concepts of structured programming. Topics include software development methodology, data types, control structures, functions, arrays, and the mechanics of running, testing, and debugging. This course assumes computer literacy.

**COSC 1437 PROGRAMMING FUNDAMENTALS II  
3 lec/3 lab (4 Cr.)**

Review of control structures and data types with emphasis on structured data types. Applies the object-oriented programming paradigm, focusing on the definition and use of classes along with the fundamentals of object-oriented design. Includes basic analysis of algorithms, searching and sorting techniques, and an introduction to software engineering. Prerequisite: COSC 1336.

**INEW 2438 ADVANCED JAVA PROGRAMMING  
(4 Cr.)**

A continuation of Java programming techniques such as servlets and advanced graphical functions.

**ITNW 1425 FUNDAMENTALS OF NETWORKING  
3 lec/3 lab (4 Cr.)**

Instruction in networking technologies and their implementation. Topics include the OSI reference model; network protocols, transmission media, and networking hardware and software.

**ITSC 1265 PRACTICUM-COMPUTER AND  
INFORMATION SCIENCES, GENERAL  
14 external learning experience (2 Cr.)**

Practical general training and experiences in the workplace. The college with the employer develop and document an individualized plan for the student. The plan relates the workplace training and experiences to the student's general and technical course of study. The guided external experiences may be paid or unpaid. This course may be repeated if topics and learning outcomes vary.

**ITSC 1307 UNIX OPERATING SYSTEM I  
(3 Cr.)**

A study of the UNIX operating system including multi-user concepts, terminal emulation, use of system editor, basic UNIX commands, and writing script files. Includes introductory system management concepts.

**ITSC 1405 INTRODUCTION TO PC OPERATING  
SYSTEMS**

**3 lec/3 lab (4 Cr.)**

A study of personal computer operating systems. Topics include installation and configuration, file management, memory and storage management, control of peripheral devices, and use of utilities.

**ITSC 1425 PERSONAL COMPUTER HARDWARE  
3 lec/3 lab (4 Cr.)**

A study of current personal computer hardware including personal computer assembly and upgrading, setup and configuration, and troubleshooting.

**ITSC 1491 SPECIAL TOPICS IN COMPUTER  
AND INFORMATION SCIENCES, GENERAL  
3 lec/3 lab (4 Cr.)**

Topics address recently identified current events, skills, knowledge, and/or attitudes and behaviors pertinent to technology or occupation and relevant to the professional development of the student.

**ITSC 2264 PRACTICUM, COMPUTER & INFOR-  
MATION SCIENCES, CAPSTONE  
14 external learning experience (2 Cr)**

Practical general training and experiences in the workplace. The college with the employer develop and document an individualized plan for the student. The plan relates the workplace training and experiences to the student's general and technical course of study. The guided external experiences may be paid or unpaid. This course may be repeated if topics and learning outcomes vary.

**ITSC 2439 PERSONAL COMPUTER HELP DESK SUPPORT**

**3 lec/3lab (4 Cr)**

Diagnosis and solution of user hardware and software related problems includes on-the-job projects in either a help desk lab or in short-term assignments for local business.

**ITSE 1311 BEGINNING WEB PROGRAMMING (3 Cr.)**

Skill development in web page programming, including mark-up and scripting languages.

**ITSE 1329 PROGRAMMING LOGIC & DESIGN 3 lec (3 Cr.)**

A disciplined approach to problem solving with structured techniques and representation of algorithms using appropriate design tools. Discussion of methods for testing, evaluation, and documentation.

**ITSE 1345 INTRODUCTION TO ORACLE SQL (3 Cr.)**

An introduction to the design and creation of relational databases using Oracle. Topics include storing, retrieving, updating and displaying data using Structured Query Language (SQL).

**ITSE 1407 INTRODUCTION TO C++ PROGRAMMING 3 lec/3 lab (4 Cr.)**

Introduction to computer programming using C++. Emphasis on the fundamentals of structured design with development, testing, implementation, and documentation. Includes language syntax, data file structures, input/output devices, and files. Prerequisite: ITSE 1402 and ITSE 1329 or departmental approval.

**ITSE 1430 INTRODUCTION TO C# PROGRAMMING (4 Cr.)**

A study of C# syntax including data types, control structures, functions, syntax, and semantics of the language, classes, class relationships, and exception handling.

**ITSE 1492 SPECIAL TOPICS IN COMPUTER PROGRAMMING**

**3 lec/3 lab (4 Cr.)**

Topics address recently identified current events, skills, knowledge, and/or attitudes and behaviors pertinent to the technology or occupation and relevant to the professional development of the student.

**ITSE 2302 INTERMEDIATE WEB PROGRAMMING (3 Cr.)**

Techniques for web development. Includes server-side and client-side scripting.

**ITSE 2413 WEB AUTHORIZING**

**3 lec/3 lab (4 Cr.)**

Instruction in designing and developing web pages that incorporate text, graphics, and other supporting elements using current technologies and authoring tools.

**ITSE 2417 JAVA PROGRAMMING**

**3 lec/3 lab (4 Cr.)**

Introduction to JAVA programming with object-orientation. Emphasis on the fundamental syntax and semantics of JAVA for applications and web applets.

**ITSW 1310 INTRODUCTION TO PRESENTATION GRAPHICS SOFTWARE**

**2 lec/2 lab (3 Cr.)**

Instruction in the utilization of presentation software to produce multimedia presentations. Graphics, text, sound, animation and/or video may be used in presentation development.

**ITSW 1404 INTRODUCTION TO SPREADSHEETS**

**3 lec/3 lab (4 Cr.)**

Instruction in the concepts, procedures, and importance of electronic spreadsheets.

**ITSW 1407 INTRODUCTION TO DATABASE**

**3 lec/3 lab (4 Cr.)**

Introduction to database theory and the practical applications of a database.

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**COSMETOLOGY (CSME)**

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**CSME 1348**

**PRINCIPLES OF SKIN CARE**

**2 lec/4 lab (3 Cr.)**

An introduction to the theory and practice of skin care.

**CSME 1401 ORIENTATION TO COSMETOLOGY**

**2 lec/6 lab (4 Cr.)**

An overview of the skills and knowledge necessary for the field of cosmetology. 128 contact hours required.

**CSME 1405 FUNDAMENTALS OF COSMETOLOGY**

**2 lec/6 lab (4 Cr.)**

A course in the basic fundamentals of cosmetology. Topics include service preparation, manicuring, facials, chemical services, shampooing, haircutting, wet styling, comb-out styling, and salon management. 160 contact hours required.

**CSME 1434 COSMETOLOGY INSTRUCTOR I**

**2 lec/6 lab (4 Cr.)**

This course covers the fundamentals of instructing cosmetology students. Classroom/clinic management;

design teaching methodologies and instruction on how to implement lesson plans.

**CSME 1435 ORIENTATION TO THE INSTRUCTION OF COSMETOLOGY**

**2 lec/6 lab (4 Cr.)**

An overview of the skills and knowledge necessary for the instruction of cosmetology students.

**CSME 1443 MANICURING & RELATED THEORY**

**2 lec/6 lab (4 Cr.)**

Presentation of theory and practice of nail technology. Topics include terminology, application, and workplace competencies relating to nail technology. 128 contact hours required.

**CSME 1447 PRINCIPLES OF SKIN CARES/FACIALS AND RELATED THEORY**

**2 lec/6 lab (4 Cr.)**

In-depth coverage of the theory and practice of skin care, facials and cosmetics. 128 contact hours required.

**CSME 1451 ARTISTRY OF HAIR, THEORY AND PRACTICE**

**2 lec/8 lab (4 Cr.)**

Instruction in the artistry of hair design. Topics include theory, techniques, and application of hair design. 160 contact hours required.

**CSME 1453 CHEMICAL REFORMATION AND RELATED THEORY**

**2 lec/8 lab (4 Cr.)**

Presentation of the theory and practice of chemical reformation. Topics include terminology, application and workplace competencies related to chemical reformation. 160 contact hours required.

**CSME 1520 ORIENTATION TO FACIAL SPECIALIST**

**2 lec/6 lab (5 Cr.)**

An overview of the skills and knowledge necessary for the field of facials and skin care.

**CSME 1521 PRINCIPLE OF FACIAL/ESTHETIC TECHNOLOGY I**

**2 lec/8 lab (5 Cr.)**

An introduction to the principles of facial/esthetic technology. Topics include anatomy, physiology, theory, and related skills of skin care and cosmetics.

**CSME 1531 PRINCIPLES OF NAIL TECHNOLOGY I**

**4 lec/4 lab (5 Cr.)**

A course in the principles of nail technology. Topics include anatomy, physiology, theory, and skills of manicuring and pedicuring.

**CSME 1541 PRINCIPLES OF NAIL TECHNOLOGY II**

**4 lec/4 lab (5 Cr.)**

A continuation of the concepts and principles of nail technology. Topics include advanced instruction in anatomy, physiology, theory, and related skills of nail technology.

**CSME 1543 MANICURING AND RELATED THEORY**

**4 lec/4 lab (5 Cr.)**

Presentation of the theory and practice of nail technology. Topics include terminology, application of nail technology, and workplace competencies in nail technology.

**CSME 1545 PRINCIPLES OF FACIAL/ESTHETIC TECHNOLOGY II**

**2 lec/8 lab (5 Cr.)**

A continuation of the concepts and principles in skin care and other related technologies. Topics include advanced instruction in anatomy, physiology, theory, and related skills of facial/esthetic technology.

**CSME 2265 PRACTICUM - COSMETOLOGY**

**0 lec/0 lab 320 Ext. (2 Cr.)**

Practical, general workplace training supported by an individualized learning plan developed by the employer, college and student.

**CSME 2337 ADVANCED COSMETOLOGY TECHNIQUES**

**2 lec/6 lab (3 Cr.)**

Mastery of advanced cosmetology techniques including hair design, professional cosmetology workplace competencies. 128 contact hours required.

**CSME 2343 SALON DEVELOPMENT**

**2 lec/4 lab (3 Cr.)**

Exploration of salon development. Topics include professional ethics and goals, salon operation and record keeping. 96 contact hours required.

**CSME 2401 THE PRINCIPLES OF HAIR COLORING AND RELATED THEORY**

**2 lec/8 lab (4 Cr.)**

Presentation of the theory and practice of hair color and chemistry. Topics include terminology, application, and workplace competencies related to hair color and chemistry. 160 contact hours required.

**CSME 2414 COSMETOLOGY INSTRUCTOR II**

**2 lec/6 lab (4 Cr.)**

A continuation of the fundamentals of instructing cosmetology.

**CSME 2415 COSMETOLOGY INSTRUCTOR III**

**2 lec/6 lab (4 Cr.)**

Presentation of lesson plan assignments and evaluation techniques.

**CSME2439 ADVANCED HAIR DESIGN****4 lec 6 lab (4 Cr.)**

Advanced concepts in the theory and practice of hair design. 160 contact hours required.

**CSME 2441 PREPARATION FOR TEXAS DEPARTMENT OF LICENSING & REGULATION EXAMINATION****2 lec/6 lab (4 Cr.)**

CAPSTONE COURSE. 128 contact hours required.

**CSME 2444 COSMETOLOGY INSTRUCTOR IV****2 lec/6 lab (4 Cr.)**

Advanced concepts of instruction in a cosmetology program. Topics include demonstration, development, and implementation of advanced evaluation and assessment techniques.

**CSME 2445 INSTRUCTIONAL THEORY AND CLINIC OPERATION****2 lec/6 lab (4 Cr.)**

An overview of the objectives required by the Texas Department of Licensing and Regulation Instructor Examination.

**CSME 2530 NAIL ENHANCEMENT****4 lec/4 lab (5 Cr.)**

A course in the theory, application, and related technology of artificial nails.

**CSME 2531 PRINCIPLES OF FACIALS/ESTHETICS TECHNOLOGY III****2 lec/6 lab (5 Cr.)**

Advanced concepts and principles of skin care and other related technologies.

## **CRIMINAL JUSTICE (CJCR, CJSA, CRIJ)**

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**CJCR 1166****160 ext. hours (1 Cr.)**

Practicum or field experience consisting of 160 hours of on-the-job training. This is an external learning experience conducted at a TYC site. The OJT training is supervised by a TYC employee at the location where the training occurs.

**CJCR 1474 TYC PRE-SERVICE****3 lec/2 lab (4 Cr.)**

A four-credit-hour course taught over a two-week period, eight hours per day. Pre-service training is offered for TYC employees. TYC employees/students are exposed to a wide variety of subjects including HIV, AIDS, Juvenile Rights, Juvenile Health, Youth Movement, Preventing Sexual Misconduct, Cultural Awareness, Victims Rights, Suicide Prevention, Gangs and Use of

Force Policies.

**CJSA 1348 Ethics in Criminal Justice****3 lec (3 Cr.)**

Ethical philosophies and issues pertaining to the various professions in the criminal justice system. Includes ethical issues emanating from constitutional conflict with public protection and individual rights, civil liberties, and correctional policies.

**CJSA 2364 PRACTICUM (OR FIELD EXPERIENCE) - CRIMINAL JUSTICE STUDIES****21 External learning experience (3 Cr.)**

Practical general training and experiences in the workplace. The college with the employer develop and document an individualized plan for the student. The plan relates the workplace training and experiences to the student's general and technical course of study. The guided external experiences may be paid or unpaid. This course may be repeated if topics and learning outcomes vary.

**CRIJ 1301 INTRODUCTION TO CRIMINAL JUSTICE (CJSA 1322)****3 lec (3 Cr.)**

History and philosophy of criminal justice and ethical consideration; crime defined, and its nature and impact, overview of criminal justice system, prosecution and defense, trial process, and corrections. (Tech Prep equivalent CJSA 1322)

**CRIJ 1306 COURT SYSTEMS AND PRACTICES (CJSA 1313)****3 lec (3 Cr.)**

The judiciary in the criminal justice system, right to counsel, pretrial release, grand juries, adjudication process, types and rules of evidence and sentencing.

**CRIJ 1307 CRIME IN AMERICA (CJSA 1312)****3 lec (3 Cr.)**

The study of the nature of and extent of crime, impact and crime trends, social characteristics of specific crimes, and theories of crime causations and crime typology. (Tech Prep equivalent CJSA 1312)

**CRIJ 1310 FUNDAMENTALS OF CRIMINAL LAW (CJSA 1327)****3 lec (3 Cr.)**

A study of the nature of criminal law, philosophical and historical development, major definitions and concepts, classification of crime, elements of crimes and penalties using Texas statutes as illustrations, criminal responsibility.

**CRIJ 1313 JUVENILE JUSTICE SYSTEM****3 lec/3 lab (3 Cr.)**

A study of the juvenile justice process. Topics include specialized juvenile law, role of juvenile law, role of the

juvenile courts, role of police agencies, role of correctional agencies, and theories concerning delinquency.

**CRIJ 2301 COMMUNITY RESOURCES IN CORRECTIONS**

**3 lec (3 Cr.)**

An introductory study of the role of the community in corrections, community programs for adults and juveniles; administration of community programs, legal issues, and future trends in community treatment.

**CRIJ 2313 CORRECTIONAL SYSTEMS AND PRACTICES**

**3 lec (3 Cr.)**

Corrections in the criminal justice systems, correctional role, institutional operations, alternatives to institutionalization, treatment and rehabilitation, and current and future issues. (Tech Prep equivalent CJCR 1301)

**CRIJ 2314 CRIMINAL INVESTIGATION**

**3 lec (3 Cr.)**

Methods and procedures of types of investigation used in major and minor crimes, variety of sources of information, recognition, evaluation, and preservation of evidence; preliminary and follow-up investigation, and identification of individuals.

**CRIJ 2323 LEGAL ASPECTS OF LAW ENFORCEMENT**

**3 lec (3 Cr.)**

History and philosophy of modern law including structure, definition and application of commonly used penal statutes and leading case laws, along with a review of elements of crime.

**CRIJ 2328 POLICE SYSTEMS AND PRACTICES**

**3 lec (3 Cr.)**

The police profession, organization of law enforcement systems, the police role, police discretion, ethics, police-community interaction and current and future issues.

**ITSY 1400 FUNDAMENTALS OF INFORMATION SECURITY**

**3 lec (3 Cr.)**

Basic information security goals of availability, integrity, accuracy, and confidentiality. Vocabulary and terminology specific to the field of information security are discussed. Identification of exposures and vulnerabilities and appropriate countermeasures are addressed. The importance of appropriate planning and administrative controls are also discussed.

**SLPS 2331 METHODS OF SECURITY**

**3 lec (3 Cr.)**

Methods and techniques used to help prevent and reduce losses due to theft and casualty. Includes security surveys, communication and surveillance systems, control of personnel and visitors, use supervision, training of

security forces, and handling civil disturbances in public buildings.

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**DANCE**

**DANC 1141 BALLET I**

Instruction and participation in ballet technique.

**DANC 1142 BALLET II**

Instruction and participation in ballet technique.

**DANC 1147 JAZZ DANCE I**

Instruction and participation in jazz dance technique.

**DANC 1148 JAZZ DANCE II**

Instruction and participation in jazz dance technique.

**DANC 1251 DANCE PERFORMANCE I**

Instruction and participation in dance performance.

**DANC 1252 DANCE PERFORMANCE II**

Instruction and participation in dance performance.

**DANC 2141 BALLET III**

Instruction and participation in ballet technique.

**DANC 2142 BALLET IV**

Instruction and participation in ballet technique.

**DANC 2147 JAZZ DANCE III**

Instruction and participation in jazz dance technique.

**DANC 2148 JAZZ DANCE IV**

Instruction and participation in jazz dance technique.

**DANC 2251 DANCE PERFORMANCE III**

Instruction and participation in dance performance.

**DANC 2252 DANCE PERFORMANCE IV**

Instruction and participation in dance performance.

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**DEVELOPMENTAL STUDIES**

\*Developmental studies courses may not be applied toward degrees or certificates. Credit awarded is non-degree credit (NDCr).

**DEVELOPMENTAL MATHEMATICS (MTH)**

**MTH 1071 ESSENTIALS OF MATHEMATICS I**

**3 lec/1 lab (3 NDCr.)\***

A basic-level course with emphasis on the fundamental arithmetic operations of addition, subtraction, multiplication, and division. Topics include operations with whole numbers, fractions, percents, basic geometry, ratios, decimals, proportions, measurement concepts, and word problems.

**MTH 1074 INTRODUCTORY ALGEBRA****3 lec/1 lab (3 NDCr.)\***

Topics in mathematics such as arithmetic operations, basic algebraic concepts and notation, geometry, and real number systems.

**MTH 1312 INTERMEDIATE ALGEBRA****3 lec/1 lab (3 NDCr.)\***

Introduction to algebra for students not prepared for MATH 1314 or MATH 1324. Topics include relations and functions, solving linear and quadratic equations, inequalities, polynomials, factoring, stated problems, rational expressions, proportions, introduction to complex numbers, and exponential expressions. Prerequisite: Satisfactory score on basic skills test or MTH 1074.

**READING (READ)****READ 1071 READING AND STUDY SKILLS I****3 lec/1 lab (3 NDCr.)\***

Reading and Study Skills is an introductory non-degree, non-credit course designed to help meet the learning needs of students who enter college under-prepared in the following areas: vocabulary, comprehension, reading rate, and study skills. A portion of the required work is of an independent nature with students selecting from a variety of choices including computer software, newspapers, and other learning resources.

**READ 1071 ESOL READING AND STUDY SKILLS I FOR NON-NATIVE ENGLISH SPEAKERS****3 lec/1 lab (3 NDCr.)**

Course for speakers of other languages designed to teach basic English reading skills, including vocabulary, comprehension, reading rate, and study skills. Prepares students to function in college classes that require English language reading proficiency. Prerequisite: non-native English speaker whose THEA score (or approved alternative test) indicates that the student should be placed in Developmental Reading 1071.

**READ 1072 ADVANCED READING COMPREHENSION****3 lec (3 NDCr.)**

A non-degree, non-credit course designed to help meet the needs of students who are only slightly under-prepared for their college reading responsibilities. Emphasis is placed on comprehending college texts and other educational materials.

**WRITING (WRIT)****WRIT 1071 WRITING SKILLS I****3 lec/1 lab (3 NDCr.)\***

A course designed to identify and help eliminate deficiencies in the basic writing skills that are necessary for college-level academic work. The course reviews the fundamentals of grammar and teaches the basics of writing paragraphs and short essays.

**WRIT 1071 ESOL WRITING SKILLS FOR NON-NATIVE ENGLISH SPEAKERS****3 lec/1 lab (3 NDCr.)**

A course for speakers of other languages designed to help teach basic English language writing skills. The course reviews the fundamentals of grammar and teaches the basics of writing paragraphs and short essays. Prepares students to function in college classes that require written English language proficiency. Prerequisite: non-native English speaker whose THEA score (or approved alternative test) indicates that the student should be placed in Developmental Writing 1071.

**WRIT 1072 WRITING SKILLS II****3 lec (3 NDCr.)\***

A class intended to give beginning and under-prepared writers experience in the processes of writing and to give them a working knowledge of English grammatical rules. This course is for students whose assessment test scores show a need for work in basic writing skills and for any student who wishes to reinforce existing skills. While grammar, punctuation, and spelling will be emphasized in the course, their primary mastery through application in regular writing assignments will determine the student's success in the course.

**DRAMA (DRAM)****DRAM 1220, 1221, 2220 THEATRE PRACTICUM****2 lec/4 lab (2Cr.)**

A lecture-laboratory course open to all students interested in theatre. Credit is earned for work in all areas of technical theatre and participation in theatre productions. May be repeated for a maximum of four hours. Required of all theatre majors.

**DRAM 2121 THEATRE PRACTICUM****1 lec/2 lab (1 Cr.)**

A lecture-laboratory course open to all students interested in theatre. Credit is earned for work in all areas of technical theatre and participation in theatre productions. May be repeated for a maximum of four hours. Required of all theatre majors.

**DRAM 1310 INTRODUCTION TO THEATRE****3 lec (3 Cr.)**

A general survey of all phases of theatre arts including the study of various styles and types of plays and theatre productions, stage techniques, and theatre history. Recommended as an elective to fulfill fine arts requirement of core curriculum. Required of all theatre majors.

**DRAM 1330 STAGE CRAFT****3 lec/3 lab (3 Cr.)**

A lecture-laboratory course planned to give the student a knowledge of the technical phase of mounting a produc-

tion on the stage. It includes basic design and execution of stage settings and a study of the physical theatre. Required of all theatre majors. Open to all students.

### **DRAM 1341 STAGE MAKE-UP**

**2 lec/1 lab (3 Cr.)**

A study of basic makeup techniques for the stage. Practical experience in makeup application in a variety of styles. Purchase of a makeup kit is required. Required of all theatre majors.

### **DRAM 1351 ACTING I**

**2 lec/4 lab (3 Cr.)**

An introduction to the art of acting with emphasis on the mechanics of voice, body, emotion, and analysis as tools for the actor. The development of basic skills and techniques of acting including increased sensory awareness, ensemble performing, character analysis, and script analysis. Required of all theatre majors.

### **DRAM 1352 ACTING II**

**2 lec/4 lab (3 Cr.)**

A continuation of DRAM 1351. Study will focus on practical experience in characterization and styles of acting. Prerequisite: Drama 1351 or consent of instructor. Required of all theatre majors.

### **DRAM 2336 VOICE FOR THE THEATER**

**2 lec/4 lab (3 Cr.)**

Application of the performer's use of the voice as a creative instrument of effective communication. Encourages an awareness of the need for vocal proficiency and employs techniques designed to improve the performer's speaking abilities.

### **DRAM 2366, 2367 DEVELOPMENT OF THE MOTION PICTURE I & II**

**2 lec/4 lab (3 Cr.)**

Emphasis on the exploration of various film genres, dramatic aspects of narrative films, analysis of visual and aural aspects, and historical growth and sociological effect of film as an art.

## **ECONOMICS (ECON)**

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### **ECON 2301 PRINCIPLES OF ECONOMICS (Macroeconomic Theory)**

**3 lec (3 Cr.)**

Analysis of the economy as a whole, national income, money and banking and monetary policy, public finance and fiscal policy, economic stabilization policies and growth, and related current economic problems.

### **ECON 2302 PRINCIPLES OF ECONOMICS (Microeconomic Theory)**

**3 lec (3 Cr.)**

Basic price theory under market conditions of pure com-

petition, monopoly, monopolistic competition, and oligopoly, distribution of the national income, and contemporary economic problems are emphasized.

## **EDUCATION (EDUC)**

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### **EDUC 1301 INTRODUCTION TO EDUCATION**

**3 lec (3 Cr.)**

Introduction to the foundations of education in the teaching profession. This course is required for 4th-grade pre-service teachers. Important knowledge and issues in education are explored creating the bridge between educational research and classroom practice. All future educators should consider this course as a foundation for teaching.

### **EDUC 2301 INTRODUCTION TO SPECIAL POPULATIONS**

**3 lec/2 lab (3 Cr.)**

Introduction to special populations including characteristics, problems, and needs of the exceptional learner. Field trips may be required.

## **EMERGENCY MEDICAL SERVICES (EMSP)**

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### **EMSP 1164 PARAMEDIC PRACTICUM I**

**14 external lab (1 Cr.)**

Practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student. At the completion of the course the student will be able to apply the theory, concepts, and skills involving specialized materials, tools, equipment, procedure, regulations, laws, and interactions within and among political, economic, environmental, social, and legal systems associated with the occupation and the business/industry and will demonstrate legal and ethical behavior, safety practices, interpersonal and teamwork skills, and appropriate written and verbal communication skills using the terminology of the occupation and the business/industry.

### **EMSP 1165 PARAMEDIC PRACTICUM II**

**14 external lab (1 Cr.)**

Practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student. At the completion of the course the student will be able to apply the theory, concepts, and skills involving specialized materials, tools, equipment, procedures, regulations, laws, and interactions within and among political, economic, environmental, social, and legal systems associated with the occupation and the business/industry and will demonstrate legal and ethical behavior, safety practices, interpersonal and teamwork skills, and appropriate written and verbal communication skills using the terminology of the occupation and the

business/industry.

**EMSP 2265 PARAMEDIC PRACTICUM III**  
**14 external lab (2 Cr.)**

Practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student. At the completion of the course the student will be able to apply the theory, concepts, and skills involving specialized materials, tools, equipment, procedure, regulations, laws, and interactions within and among political, economic, environmental, social, and legal systems associated with the occupation and the business/industry and will demonstrate legal and ethical behavior, safety practices, interpersonal and teamwork skills, and appropriate written and verbal communication skills using the terminology of the occupation and the business/industry.

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## **ENGINEERING (ENGR)**

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**ENGR 2301 ENGINEERING MECHANICS I**  
**3 lec (3 Cr.)**

This course is a study of the statics of particles and rigid bodies with vector algebra and calculus in three-dimensional space. Topics include the equilibrium of forces and force systems, resultants, free body diagrams, friction, centroids and moments of inertia, equivalent force systems, equilibrium of rigid bodies, and structural analysis. Prerequisites: MATH 2413 and PHYS 2425.

**ENGR 2302 ENGINEERING MECHANICS II**  
**3 lec (3 Cr.)**

This course is a study of dynamics using vector algebra and calculus. It includes a review of particle dynamics. Impulse and momentum of particles, area and mass moments are studied. The kinematics and dynamics of rigid bodies are covered using the concepts of force, mass and acceleration, work and energy, and impulse and momentum. Prerequisites: MATH 2414 and ENGR 2301.

**ENGR 2303 ENGINEERING MECHANICS III -**  
**STATICS & DYNAMICS**  
**3 lec (3 Cr.)**

This course is a combined single-semester study of statics and dynamics using vector algebra and calculus. Topics include free body diagrams, equilibrium of force and force systems, dynamics of rigid bodies, force-mass-acceleration, work-energy and impulse-momentum as they pertain to rigid two- and three-dimensional bodies. Prerequisite: PHYS 2425 and MATH 2413.

**ENGR 2305 FUNDAMENTALS OF ELECTRICAL**  
**CIRCUITS**  
**3 lec (3 Cr.)**

This course is a study of the principles of electrical cir-

cuits and systems including analysis of DC, transient, and sinusoidal steady-state circuits using differential and integral calculus. Also covered, computer software to analyze circuits, engineering topics, and this course helps prepare the student with the basic skills of circuit analysis. Recommended that student complete PHYS 2426 before enrolling in this course. Prerequisite: MATH 2413

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## **ENGLISH (ENGL)**

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**ENGL 1301 COMPOSITION AND RHETORIC I**  
**3 lec/1 lab (3 Cr.)**

Includes study of grammatical and rhetorical principles as applied in written composition, study of nature and function of language, and study of rhetorical modes as description, narration, process, comparison, contrast, definition, classification, persuasion, argument, and critical review.

**ENGL 1302 COMPOSITION AND RHETORIC II**  
**3 lec/1 lab (3 Cr.)**

A more complex study of rhetorical principles developing the critical essay and formal research paper. Selected readings used as a springboard for writing include poetry, short story and drama. Prerequisite: ENGL 1301.

**ENGL 2311 TECHNICAL AND BUSINESS WRITING**  
**3 lec (3 Cr.)**

A study of the fundamental principles, techniques, and skills for scientific, technical, and/or business writing. Emphasis will be on the student's studying and preparing various types of oral and written reports including abstracts, operations manuals, proposals, recommendation reports, feasibility studies, resumes, and correspondence. Prerequisite: ENGL 1301.

**ENGL 2322 BRITISH LITERATURE I**  
**3 lec (3 Cr.)**

A survey of significant works of British Literature from the Medieval to Restoration periods. Pre-requisite: ENGL 1301 & 1302.

**ENGL 2323 BRITISH LITERATURE II**  
**3 lec (3 Cr.)**

A survey of significant works of British literature from the Romantic period to the present. Prerequisite: ENGL 1301 & 1302.

**ENGL 2327 AMERICAN LITERATURE I**  
**3 lec (3 Cr.)**

Selected significant works of American literature from the Colonial period through the Civil War. Prerequisite: ENGL 1301 & 1302.

**ENGL 2328 AMERICAN LITERATURE II****3 lec (3 Cr.)**

Selected significant works of American literature from the Civil War period to the present. Prerequisite: ENGL 1301 & 1302.

**ENGL 2332 WORLD LITERATURE I****3 lec (3 Cr.)**

Survey of literature of the western world from antiquity through the English Renaissance. Prerequisite: ENGL 1301 and 1302.

**ENGL 2333 WORLD LITERATURE II****3 lec (3 Cr.)**

Survey of literature of the western world from Rousseau continuing to contemporary writers. Prerequisite: ENGL 1301 and 1302.

**ENGL 2341 FORMS OF LITERATURE****3 lec (3 Cr.)**

Intensive analysis of literary works. May be unified by theme, period, or subject matter. Prerequisite: ENGL 1301 & 1302.

## **FIRE PROTECTION TECHNOLOGY (FIRT)**

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**EMSP 1160 CLINICAL-EMERGENCY MEDICAL  
TECHNICIAN - BASIC****4 ext. hrs (1 Cr.)**

A health-related, work-based learning experience that helps enable the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional.

**EMSP 1401 EMERGENCY MEDICAL TECHNI-  
CIAN - BASIC****1lec/9 lab**

Introduction to the level of Emergency Medical Technician (EMT) - Basic. Includes all the skills necessary to provide emergency medical care at basic life support level with an ambulance service or other specialized services.

**FIRS 1301 FIREFIGHTER CERTIFICATION I****2 lec/2 lab (3 Cr.)**

Firefighter safety and development. Curriculum includes Texas Commission on Fire Protection rules and regulations, firefighter safety, fire science, personal protective equipment, self-contained breathing apparatus, and fire reports and records.

**FIRS 1313 FIREFIGHTER CERTIFICATION III****2 lec/3 lab (3 Cr.)**

This course will include a study of fire streams and pump operations as they relate to fundamental development of basic firefighter skills.

**FIRS 1319 FIREFIGHTER CERTIFICATION IV****2 lec/3 lab (3 Cr.)**

Equipment, tactics, and procedures used in forcible entry, ventilation, salvage, and overhaul. This course will cover preparation for certification as a basic firefighter.

**FIRS 1323 FIREFIGHTER CERTIFICATION V****2 lec/4 lab (3 Cr.)**

Ropes and knots, rescue procedures and techniques, and hazardous materials. This course will cover preparation for certification as a basic fire fighter.

**FIRS 1329 FIREFIGHTER CERTIFICATION VI****2 lec/3 lab (3 Cr.)**

Fire inspection techniques and practices. Course content will emphasize fire-cause determination. Curriculum includes fire protection systems, wild land fire, and pre-incident planning. This course will cover preparation for certification as a basic firefighter.

**FIRS 1407 FIREFIGHTER CERTIFICATION II****2 lec/2 lab (4 Cr.)**

Basic principles and skill development in handling fire service hose and ladders. Curriculum includes the distribution system of water supply, basic building construction, and emergency service communication, procedures, and equipment.

**FIRS 1433 FIREFIGHTER CERTIFICATION VII  
(Capstone)****2 lec/5 lab (4 Cr.)**

Simulated emergency operations and hands-on live fire training exercises, incident management procedures, and combined operations using proper extinguishing methods. Emphasis on safety.

**FIRT 1301 FUNDAMENTALS OF FIRE  
PROTECTION****3 lec (3 Cr.)**

Orientation to fire service, career opportunities, related fields. End-of-Course Outcomes: Describe a modern fire protection agency; outline the organizational and staffing requirements for fire protection; and identify public and private protection agencies.

**FIRT 1303 FIRE & ARSON INVESTIGATION I****3 lec (3 Cr.)**

Basic fire and arson investigation practices. Emphasis on fire behavior principles related to fire cause and origin determination. End-of-Course Outcomes: Identify the cause and point of origin and the cause of the fire; list possible motives of fire setters; and describe the elements of investigation practices.

**FIRT 1305 PUBLIC EDUCATION PROGRAMS  
3 lec (3 Cr.)**

Preparation of firefighters and fire officers to develop public fire safety awareness. Emphasis on implementation of fire and public safety programs in an effort to reduce the loss of life. End-of-Course Outcomes: Identify safety programs for various target groups; and conduct fire and public safety programs within a community.

**FIRT 1307 FIRE PREVENTION CODES AND INSPECTIONS  
3 lec (3 Cr.)**

Local building and fire prevention codes. Fire prevention inspections, practices, and procedures. End-of-Course Outcomes: Apply provisions of local building and fire prevention codes to fire prevention inspections; and describe fire inspection practices and procedures including hazard recognition and correction.

**FIRT 1309 FIRE ADMINISTRATION I  
3 lec (3 Cr.)**

Introduction to the organization and management of a fire department and the relationship of government agencies to fire service. Emphasis on fire service leadership from the perspective of the company officer. End-of-Course Outcomes: Explain the intra-organizational cooperation needed for a fire department to function properly; describe fundamental management and organizational principles; and demonstrate leadership and management skills at the company-grade level.

**FIRT 1311 FIRE SERVICE HYDRAULICS  
3 lec (3 Cr.)**

The use of water in fire protection. Application of hydraulic principles to analyze and solve water supply problems. End-of-Course Outcomes: Describe basic principles of hydraulics; identify components of a water distribution system; calculate fire flows for various types of occupancies; explain various types of fire pumps and pump operational procedures; calculate pump pressure for various types of hose lays; and describe various types of nozzles and the application of each type.

**FIRT 1315 HAZARDOUS MATERIALS I  
3 lec (3 Cr.)**

The chemical characteristics and behavior of various materials. Storage, transportation, handling hazardous emergency situations, and the most effective methods of hazard mitigation. End-of-Course Outcomes: Identify hazardous materials in various shipping and storage containers; explain chemical characteristics and how chemicals react under certain conditions; and describe the most effective methods of hazard mitigation.

**FIRT 1327 BLDG. CONST. IN THE FIRE SERVICES  
3 lec (3 Cr.)**

Components of building construction that relate to life and safety. Includes relationship of construction elements and building design impacting fire spread in structures. End-of-Course Outcomes: Identify types of building construction and fire resistance levels of building materials; describe hazards associated with construction practices; and identify signs of potential structural collapse.

**FIRT 1329 BUILDING CODES & CONSTRUCTION  
3 lec (3 Cr.)**

Examination of building codes and requirements, construction types, and building materials. Includes walls, floorings, foundations, and various roof types and the associated dangers of each. End-of-Course Outcomes: Identify model building codes; and compare construction types related to fire behavior.

**FIRT 1333 FIRE CHEMISTRY I  
3 lec (3 Cr.)**

Chemical nature and properties of inorganic compounds as related to fire service. Fundamental laws of chemistry, states of matter, gas laws, chemical bonding, and thermodynamics. End-of-Course Outcomes: Define fire; describe states of matter; differentiate properties of gases and solutions; and interpret chemical reactions related to effective fire extinguishment.

**FIRT 1338 FIRE PROTECTION SYSTEMS  
3 lec (3 Cr.)**

Design and operation of fire detection and alarm systems, heat and smoke control systems, special protection and sprinkler systems, water supply for fire protection, and portable fire extinguishers. End-of-Course Outcomes: Identify the applications and explain the operation of fire detection, alarm, and extinguishing systems.

**FIRT 1345 HAZARDOUS MATERIALS II  
3 lec (3 Cr.)**

Mitigation practices and techniques to help effectively control hazardous material spills and leaks. End-of-Course Outcomes: Demonstrate proper methods of mitigating a hazardous material incident; and describe the components of a hazardous incident management system including scene control, protective clothing and equipment, spill and leak control, and decontamination.

**FIRT 1347 INDUSTRIAL FIRE PROTECTION  
3 lec (3 Cr.)**

Industrial emergency response teams and specific needs related to hazards in business and industrial facilities. End-of-Course Outcomes: Identify hazards common to industrial facilities and concerns of management regarding fire protection; examine planning considerations for emergencies at industrial facilities; and apply Occupational Safety and Health

Administration (OSHA) requirements for fire protection.

**FIRT 1349 FIRE ADMINISTRATION II**  
**3 lec (3 Cr.)**

In-depth study of fire service management as pertaining to budgetary requirements, administration, organization of divisions within the fire service, and relationships between the fire service and outside agencies. End-of-Course Outcomes: Explain the relationships with outside organizations and their impact on fire service operations; develop an organizational structure demonstrating inter-agency cooperation; and describe management principles and techniques for effective organizational performance.

**FIRT 1353 LEGAL ASPECTS OF FIRE PROTECTION**  
**3 lec (3 Cr.)**

Study of the rights, duties, liability concerns, and responsibilities of public fire protection agencies while performing assigned duties. End-of-Course Outcomes: Summarize basic criminal and civil law; discuss relevant tort law; and describe state and federal legal systems.

**FIRT 1355 METHODS OF TEACHING**  
**3 lec (3 Cr.)**

Preparation of public safety personnel to effectively teach technical skills, techniques and information.

**FIRT 1480 COOPERATIVE EDUCATION - FIRE PROTECTION AND SAFETY TECHNOLOGY/TECHNICIAN**  
**21 external learning experience (4 Cr.)**

Career-related activities encountered in the student's area of specialization are offered through a cooperative agreement between the college, employer and student. Under supervision of the college and the employer, the student combines classroom learning with work experience. Directly related to a technical discipline, specific learning objectives guide the student through the paid work experience.

**FIRT 2309 FIREFIGHTING STRATEGIES AND TACTICS I**  
**2 lec/2 lab (3 Cr.)**

Analysis of the nature of fire problems and selection of initial strategies and tactics including an in-depth study of efficient and effective use of manpower and equipment to mitigate the emergency. End-of-Course Outcomes: Identify potential scenarios in various fire situations; implement strategies and tactics; and describe components of an incident management system.

**FIRT 2351 COMPANY OFFICER**  
**3 lec (3 Cr.)**

A capstone course covering fire ground operations and supervisory practices. Includes performance evaluation of incident commander, safety officer, public information

officer, and shift supervisor duties. End-of-Course Outcomes: Communicate verbally and in writing the procedures needed for effective departmental operation; evaluate inquiries and concerns from the community for the purposes of public education and public relations; and integrate safety plans, policies, and procedures to help ensure compliance with National FIRE PROTECTION ASSOCIATION (NFPA) STANDARD 1500.

**FIRT 2333 FIRE & ARSON INVESTIGATION II**  
**3 lec (3 Cr.)**

Fire Investigation techniques and defense of findings in a court room setting. End-of-Course Outcomes: Prepare an investigation from the fireground to the courtroom; and demonstrate skills such as sketching, photographing, interviewing, and documenting.

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**FOREIGN LANGUAGE (FREN, SGNL, SPAN)**

**FREN 1411 BEGINNERS' FRENCH I**  
**3 lec/2 lab (4 Cr.)**

Fundamental skills in listening comprehension, speaking, reading, and writing. Includes basic vocabulary, grammatical structures, and culture.

**FREN 1412 BEGINNERS' FRENCH II**  
**3 lec/2 lab (4 Cr.)**

A continuation of FREN 1411. Prerequisite: FREN 1411 or instructor's approval.

**SGNL 1401 BEGINNING SIGN LANGUAGE I**  
**3 lec/2 lab (4 Cr.)**

Introduction to American Sign Language covering finger spelling, vocabulary, and basic sentence structure in preparing individuals to interpret oral speech for the hearing-impaired.

**SGNL 1402 BEGINNING SIGN LANGUAGE II**  
**3 lec/2 lab (4 Cr.)**

A continuation of SGNL 1401. Prerequisite: SGNL 1401 or instructor's approval.

**SPAN 1411 BEGINNERS' SPANISH I**  
**3 lec/2 lab (4 Cr.)**

Study of essentials of Spanish: pronunciation, basic vocabulary, common idioms, and functional grammar. Emphasis upon development of ability to speak and read simple Spanish silently with a fair degree of speed and accuracy.

**SPAN 1412 BEGINNERS' SPANISH II**  
**3 lec/2 lab (4 Cr.)**

A continuation of SPAN 1411. Prerequisite: SPAN 1411 or instructor's approval.

**SPAN 2311 COMPOSITION AND READING I**  
**3 lec (3 Cr.)**

General review of Spanish grammar with special drill on lists of words and idioms. Emphasis placed on study of advanced conversation and composition accompanied by reading of Spanish literature; short stories, plays, poetry, to develop better understanding and appreciation of Spanish culture. Prerequisite: SPAN 1412 or instructor's approval.

**SPAN 2312 COMPOSITION AND READING II**  
**3 lec (3 Cr.)**

A continuation of SPAN 2311. Prerequisite: SPAN 2311 or instructor's approval.

Navarro College and some universities accept **American Sign Language** in lieu of a foreign language requirement.

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## **GEOLOGY (GEOL)**

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**GEOL 1403 GENERAL GEOLOGY**  
**3 lec/3 lab (4 Cr.)**

Principles of physical and historical geology. Study of Earth's composition, structure, and internal and external processes.

**GEOL 1405 ENVIRONMENTAL GEOLOGY**  
**3 lec/3 lab (4 Cr.)**

The Earth as a habitat. Interrelationships between humans and the environment. Geologic factors in urban and regional land-use planning.

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## **GOVERNMENT (GOVT)**

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**GOVT 2305 AMERICAN NATIONAL GOVERNMENT**  
**3 lec (3 Cr.)**

Study of organization, functions and nature of the national government. Emphasis placed on rights, privileges, and obligations of citizenship as set forth by the American Constitution, by statutory law of national Congress and by judicial interpretation. Designed to examine such topics as power, authority, structure of political institutions, constitutions as well as impact of technology on government and society. Uses behavioral objectives, which emphasize involvement of students and instructors in the learning process. Prerequisite: sophomore standing or consent of instructor.

**GOVT 2306 STATE AND LOCAL GOVERNMENT**  
**3 lec (3 Cr.)**

Study of nature, organization, and general principles of local government in United States with emphasis on Texas government. Meets requirements for Texas government needed for teacher or other certificates. Both

lecture and class activities used to demonstrate public policy making on state and/or local governmental levels. Student participation used to demonstrate governmental policy making and its effect on citizens. Prerequisite: sophomore standing or consent of instructor.

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## **HISTORY (HIST)**

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**HIST 1301 AMERICAN HISTORY**  
**3 lec (3 Cr.)**

A survey of political, social, economic, military, cultural and intellectual history of the United States from the discovery of America to 1865. Emphasis placed on major developments such as establishment of Federal Republic, westward movement, growth of democracy, sectionalism, and Civil War.

**HIST 1302 AMERICAN HISTORY**  
**3 lec (3 Cr.)**

Continuation of HIST 1301. Emphasis given to reconstruction, transition from agrarianism to industrialization and emergence of America as a world power.

**HIST 2301 HISTORY OF TEXAS**  
**3 lec (3 Cr.)**

History of Texas from Spanish period to present day. Emphasis placed on period of Anglo-American settlement, revolution, republic, and development of modern state.

**HIST 2311 WESTERN CIVILIZATION TO 1660**  
**3 lec (3 Cr.)**

Survey of occidental history, emphasizing impact of Egypt, Mesopotamia, Greece, and Rome on western civilization. The Middle Ages, Renaissance and Reformation, and the rise of nation states are stressed as background to modern history. Recommended as a basic history course for all liberal arts majors.

**HIST 2312 WESTERN CIVILIZATION SINCE 1660**  
**3 lec (3 Cr.)**

Survey of occidental history continued from 1660. Special attention given to European expansion overseas, Industrial Revolution, Enlightenment, French Revolution, nineteenth century nationalism and democracy, and problems of the twentieth century. Recommended as second half of a basic history course for all liberal arts majors.

**HIST 2327 MEXICAN-AMERICAN HISTORY I**  
**3 lec (3 Cr.)**

Historical, economic, social and cultural development of Mexican-Americans/Chicanos. May be applied to U.S. history requirement.

**HIST 2328 MEXICAN-AMERICAN HISTORY II**  
**3 lec (3 Cr.)**

Historical, economic, social and cultural development of Mexican-Americans/Chicanos. May be applied to U.S. History requirement.

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**HUMANITIES (HUMA)**

**HUMA 1301 INTRODUCTION TO HUMANITIES**  
**3 lec (3 Cr.)**

An interdisciplinary, multi-perspective assessment of cultural, political, philosophical, and aesthetic factors critical to the formulation of values and the historical development of the individual and society.

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**INDUSTRIAL EQUIPMENT  
MAINTENANCE AND REPAIR  
(DEMR, ELMT, ELPT, HYDR,  
INMT )**

**DEMR 1323 HEATING, VENTILATION, & AIR  
CONDITIONING (HVAC) TROUBLESHOOTING  
AND REPAIR**

**2 lec/2 lab (3 Cr.)**

Introduction to heating, ventilation, and air conditioning theory, testing, and repair. Emphasis on refrigerant reclamation, safety procedures, specialized tools, and repairs.

**ELMT 1301 BASIC PROGRAMMABLE LOGIC  
CONTROLLERS**

**2 lec/2 lab (3 Cr.)**

An introduction to programmable logic controllers as used in industrial environments including basic concepts, programming, applications, troubleshooting of ladder logic, and interfacing of equipment.

**ELMT 2333 INDUSTRIAL ELECTRONICS**  
**1 lec/2 lab (2 Cr.)**

A study of devices, circuits, and systems primarily used in automated manufacturing and/or process control including computer controls and interfacing between mechanical, electrical, electronic, and computer equipment. Presentation of programming schemes.

**ELMT 2337 ELECTRONIC TROUBLESHOOTING,  
SERVICE, AND REPAIR**

**2 lec/2 lab (3 Cr.)**

In-depth coverage of electronic systems, maintenance, troubleshooting, and repair. Topics include symptom identification, proper repair procedures, repair checkout, and preventative maintenance. Emphasis on safety and proper use of test equipment. May be offered as a capstone course.

**ELPT 1341 MOTOR CONTROL**

**2 lec/2 lab (3 Cr.)**

Study of the operating principles of solid-state controls along with their practical applications. Topics include barking, jogging, plugging, and safety interlocks.

**ELPT 1311 BASIC ELECTRONIC THEORY**

**3 lec (3 Cr.)**

An overview of the theory and practice of electrical circuits including calculations as applied to alternating and direct current.

**ELPT 1345 COMMERCIAL WIRING**

**2 lec/2 lab (3 Cr.)**

Instruction in commercial wiring methods.

**HYDR 1305 BASIC HYDRAULICS**

**2 lec/2lab (3 Cr.)**

Fundamentals of hydraulics including types of hydraulic pumps, cylinders, valves, motors, and related systems. Introduction to hydraulic schematic symbols as related to components.

**INMT 1305 INTRO. TO INDUSTRIAL MAINTENANCE**

**2 lec/2 lab (3 Cr.)**

Basic mechanical skills and repair techniques common to most fields of industrial maintenance. Topics include precision measuring instruments and general safety rules common in industry including lock-out/tag-out.

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**KINESIOLOGY (KINE)**

**KINE 1101 AEROBICS I**

**3 lab (1 Cr.)**

Techniques for low-impact floor and step aerobics to help develop aerobic conditioning. Focus on lowering body fat and increasing muscle through aerobic exercise and basic nutritional guidelines. Three activity hours per week. One hour credit.

**KINE 1102 AEROBICS II**

**3 lab (1 Cr.)**

Aerobically fit students interested in maintaining fitness level. Three activity hours per week. One hour credit.

**KINE 1104 BOWLING I**

**3 lab (1 Cr.)**

Fundamentals of bowling skills, strategies and scoring. Three activity hours per week. One hour credit.

**KINE 1105 BOWLING II**

**3 lab (1 Cr.)**

Develop proficiency of bowling skills for students with basic knowledge of bowling fundamentals. Three activity hours per week. One hour credit.

**KINE 1106/1107/2106/2107 CHEERLEADING I, II, III, IV**

**3 lab (1 Cr.)**

Varsity sport (Audition)

**KINE 1110/1111/2110/2111 FITNESS DANCE FOR CHEERLEADERS I II, III, IV**

**3 lab (1 Cr.)**

This course is an aerobic workout course for varsity cheerleaders to improve cardiovascular endurance, flexibility, strength, and body composition. Instructor approval required.

**KINE 1112 GOLF I**

**3 lab (1 Cr.)**

To develop competency in fundamental golf skills and to understand and apply rules, regulations and safety concepts in golf play.

**KINE 1113 GOLF II**

**3 lab (1 Cr.)**

Exhibit competency in intermediate golf skills.

**KINE 1114 JOGGING I**

**3 lab (1 Cr.)**

Develop cardiovascular endurance, flexibility and strength through jogging, stretching, and weight training. Physical fitness assessment leads to development of an individual fitness program.

**KINE 1115 JOGGING II**

**3 lab (1 Cr.)**

Maintain cardiovascular fitness. Training principles for distance running and marathons.

**KINE 1116 MARTIAL ARTS I**

**3 lab (1 Cr.)**

Martial arts form that stresses physical fitness and self-defense.

**KINE 1117 MARTIAL ARTS II**

**3 lab (1 Cr.)**

Demonstrate techniques of karate and mastery of intermediate karate skills.

**KINE 1118 RACQUETBALL I**

**3 lab (1 Cr.)**

Selecting equipment and safety gear for racquetball. Serving skills and basic shots for recreational play. Three hours per week. One hour credit.

**KINE 1119 RACQUETBALL II**

**3 lab (1 Cr.)**

Intermediate serving, stroke skills, and strategy for singles and doubles play.

**KINE 1120/1121/2120/2121 VARSITY WOMEN'S SOCCER I, II, III, IV**

**3 lab (1 Cr.)**

Varsity Sport (Consent of instructor)

**KINE 1122\* SWIMMING I**

**3 lab (1 Cr.)**

Beginning-level instruction in basic strokes, freestyle, breaststroke, and backstroke. Emphasis on survival skills, floating, emergency procedures.

**KINE 1123\* SWIMMING II**

**3 lab (1 Cr.)**

Intermediate-level instruction in improving basic strokes. Development of intermediate strokes, sidestroke, butterfly, competitive turns. Emphasis on cardiovascular conditioning, lap swimming.

**KINE 1124 TENNIS I**

**3 lab (1 Cr.)**

Stroke techniques for recreational play including groundstrokes, volleys, overhands, and serves. Terminology, scoring, and historical background of tennis.

**KINE 1125 TENNIS II**

**3 lab (1 Cr.)**

Intermediate skills for serving, drop shots, doubles and singles tournament play.

**KINE 1126/1127/2126/2127 VARSITY BASEBALL I, II, III, IV**

**3 lab (1 Cr.)**

Varsity sport. (Consent of instructor)

**KINE 1128/1129/2128/2129 VARSITY BASKETBALL I, II, III, IV**

**3 lab (1 Cr.)**

Varsity sport. (Consent of instructor)

**KINE 1130/1131/2130/2131 VARSITY FOOTBALL I, II, III, IV**

**3 lab (1 Cr.)**

Varsity sport. Focuses on on-field practice drills, film study, skill refinement, etc. Consent of instructor required.

**KINE 1132/1133/2132/2133 WALK-ON SKILLS FOR ALL SPORTS I, II, III, IV**

**3 lab (1 Cr.)**

Consent of instructor.

**KINE 1134/1135/2134/2135 STRENGTH AND CONDITIONING FOR ALL WALK ON SPORTS I, II, III, IV**

**3 lab (1 Cr.)**

Consent of instructor.

**KINE 1136 WEIGHTLIFTING I**

**3 lab (1 Cr.)**

Principles of weight training including progression, specificity, overload through an individualized program of basic exercises to improve strength, endurance, and flexibility of major muscle groups.

**KINE 1137 WEIGHTLIFTING II**

**3 lab (1 Cr.)**

Intermediate applications of principles of progression, specificity, and overload.

**KINE 1138 CARDIOKICKBOXING I**

**3 lab (1 Cr.)**

A vigorous fitness class focusing on improving cardiovascular endurance. Stresses health-related fitness through the teaching of kickboxing skills.

**KINE 1139 CARDIOKICKBOXING II**

**3 lab (1 Cr.)**

Intermediate-level fitness course focusing on maintaining cardiovascular endurance. Intermediate kickboxing skills.

**KINE 1140/1141/2140/2141 VARSITY VOLLEYBALL I, II, III, IV**

**3 lab (1 Cr.)**

Varsity sport (Consent of instructor)

**KINE 1142/2142 SPECIAL TOPICS**

**3 lab (1 Cr.)**

Activity. Specific focus of study to be determined on semester basis.

**KINE 1144/1145/2144/2145 VARSITY SOFTBALL I, II, III, IV**

**3 lab (1 Cr.)**

Varsity sport (Consent of instructor)

**KINE 1146/1147 FITNESS WALKING I, II**

**3 lab (1 Cr.)**

Designed to help develop cardiovascular endurance and leads to development of an individual fitness program.

**KINE 1148 INTRODUCTION TO HATHA YOGA**

**3 lab (1 Cr.)**

Practice of yogic postures, or "asana," defined as the physical positioning that coordinates breathing with moving and holding still for the purpose of strengthening parts of the body.

**KINE 1149 INTERMEDIATE HATHA YOGA**

**3 lab (1 Cr.)**

The refinement of the asanas (postures) covered in KINE 1148 with emphasis on breath work. Introduces more advanced asanas, emphasis on integrating yoga into daily routines at home and work.

**KINE 1151 SCUBA – OPEN WATER**

**1 lec/3 lab (1 Cr.)**

Classroom and lab activities to help prepare students to complete certification requirements for open-water scuba diving.

**KINE 1253 LIFEGUARDING**

**1 lec/1 lab (2 Cr.)**

Prerequisite: permission of instructor. Graduates are awarded the American Red Cross Advanced Swimmer Card and/or American Red Cross Life Saving Card.

**KINE 1301 FOUNDATIONS OF PHYSICAL EDUC.**

**3 lec (3 Cr.)**

Designed to help orient students in the field of health, kinesiology, and recreation through presentation of scope and organization of professional activities, vocational opportunities offered in field, and essential qualifications of members of profession.

**KINE 1304 PERSONAL/COMMUNITY HEALTH**

**3 lec (3 Cr.)**

Fundamental course in principles and problems of healthful living as they apply today.

**KINE 1306 FIRST AID AND SAFETY EDUCATION**

**3 lec (3 Cr.)**

Course includes training in giving first aid and applying rules of safety.

**KINE 1308 SPORTS OFFICIATING I**

**3 lec (3 Cr.)**

Designed to give students majoring in kinesiology practical insight into rules of football, tennis and volleyball, and procedures and problems of officiating.

**KINE 1309 SPORTS OFFICIATING II**

**3 lec (3 Cr.)**

Designed to give students majoring in kinesiology insight into rules of basketball and baseball, and procedures and problems of officiating.

**KINE 1311 CARE & PREVENTION OF ATHLETIC INJURIES**

**3 lec (3 Cr.)**

The study and application of skills in the prevention and care of injuries affecting the athlete and the physically active.

**KINE 1321 SPORTS STUDIES I**

**3 lec (3 Cr.)**

Methods of coaching are studied through lectures, demonstrations, practice, and reading of current literature. Coaching techniques of football and volleyball are covered.

**KINE 1322 SPORTS STUDIES II**

**3 lec (3 Cr.)**

The history, theories, philosophies, rules, terminology and finer points of competitive sports. Coaching techniques of baseball and basketball are also covered.

**KINE 1331 CONCEPTS OF RECREATION**  
**3 lec (3 Cr.)**

Designed for students planning to be elementary teachers or who will direct playground activities. Portion of time is used for actual participation in games for elementary children.

**KINE 1338 CONCEPTS OF FITNESS AND WELLNESS**  
**2 lec/1 lab (3 Cr.)**

Principles of nutrition, exercise, stress management, and wellness concerns that helps increase longevity and quality of life. Physical activities that relate to social, mental, physical, spiritual, and emotional domains of wellness. This course is an activity course that will meet the activity requirement. This is a required course for kinesiology majors.

**KINE 1346 SUBSTANCE ABUSE**  
**3 lec (3 Cr.)**

The study of the effects of drugs on society from both an individualistic and holistic approach. It will emphasize the physiological, sociological and psychological factors.

**KINE 2126 WEIGHTLIFTING III**  
**3 lab (1 Cr.)**

Principles of weight training including progression, specificity, overload through an individualized program of basic exercises to improve strength, endurance, and flexibility of major muscle groups. Consent of instructor required. One hour credit.

**KINE 2156 TAPING AND BANDAGING**  
**3 lab (1 Cr.)**

This course provides the fundamental taping and bandaging techniques used in the prevention and care of athletic-related injuries.

**KINE 2255 WATER SAFETY INSTRUCTOR**  
**3 lab (2 Cr.)**

Prerequisite: Advanced swimming skills. The ARC WSI card will be awarded to students successfully completing ARC requirements.

**KINE 2375 INTRO. TO ATHLETIC TRAINING**  
**3 lec c (3 Cr.)**

Analysis, treatment and rehabilitation of common injuries associated with movement-related activities and athletics. Basic medical terminology is also a part of this course as it relates to documentation and communication with medical professionals.

**LEGAL ASSISTANT (LGLA)**

**LGLA 1301 LEGAL RESEARCH AND WRITING**  
**3 lec (3 Cr.)**

This course provides a working knowledge of fundamentals of effective legal research and writing. Topics include law library techniques, computer-assisted legal research, briefs, and legal memoranda.

**LGLA 1311 INTRODUCTION TO LAW**  
**3 lec (3 Cr.)**

This course provides an overview of the law and legal system. Topics include elementary legal concepts of various areas of the law, procedures, terminology, ethical obligations of the paralegal, current issues in law, and the function, jurisdiction, practices, and principles of trial and appellate courts at state and federal levels.

**LGLA 1313 INTRODUCTION TO PARALEGAL STUDIES**  
**3 lec (3 Cr.)**

This course provides an overview of the paralegal profession including ethical obligations, regulation, professional trends and issues, and the paralegal's role in assisting in the delivery of legal services. This course must be taken during the first year of enrollment in the paralegal program.

**LGLA 1345 CIVIL LITIGATION**  
**3 lec (3 Cr.)**

This course presents fundamental concepts and procedures of civil litigation with emphasis on the paralegal's role. Topics include pretrial, trial, and post-trial phases of litigation.

**LGLA 1353 WILLS, TRUSTS AND PROBATE ADMINISTRATION**  
**3 lec (3 Cr.)**

This course presents fundamental concepts of the law of wills, trusts, and probate administration with emphasis on the paralegal's role.

**LGLA 1355 FAMILY LAW**  
**3 lec (3 Cr.)**

This course presents fundamental concepts of family law with emphasis on the paralegal's role. Topics include formal and informal marriages, divorce, annulment, marital property, and the parent-child relationship.

**LGLA 2188 INTERNSHIP - PARALEGAL/LEGAL ASSISTANT (CAPSTONE)**  
**1 lab (1 Cr.)**

An experience external to the college for an advanced student in a specialized field involving a written agreement between the educational institution and a business or industry. Mentored and supervised by a workplace employee, the student achieves objectives that are developed and documented by the college and that are directly related to specific occupational outcomes. This may be a paid or unpaid experience. Requires approval of the

instructor. Requires 48 hours in the workplace.

**LGLA 2303 TORTS AND PERSONAL INJURY LAW  
3 lec (3 Cr.)**

This course presents fundamental concepts of tort law with emphasis on the paralegal's role. Topics include intentional torts, negligence, and strict liability.

**LGLA 2307 LAW OFFICE MANAGEMENT  
3 lec (3 Cr.)**

This course presents the fundamentals of law office management and organization including basic principles and structure of management, administrative and substantive systems in the law office, and law practice technology.

**LGLA 2309 REAL PROPERTY  
3 lec (3 Cr.)**

This course presents fundamental concepts of real property law with emphasis on the paralegal's role. Topics include the nature of real property, rights and duties of ownership, land use, voluntary and involuntary conveyances, and the recording of and searching for real estate documents.

**LGLA 2311 BUSINESS ORGANIZATIONS  
3 lec (3 Cr.)**

This course presents basic concepts of business organizations with emphasis on the paralegal's role. Topics include law of agency, sole proprietorships, forms or partnerships, corporations, and other emerging business entities.

**LGLA 2313 CRIMINAL LAW AND PROCEDURE  
3 lec (3 Cr.)**

This course introduces the criminal justice system including procedures from arrest to final disposition, principles of federal and state law, and the preparation of pleadings and motions.

**LGLA 2331 ADVANCED LEGAL RESEARCH AND WRITING  
3 lec (3 Cr.)**

This course builds upon skills acquired in prior legal research and writing courses including computerized research techniques and preparation of complex legal documents such as briefs, legal office memoranda, and citation forms. Prerequisite: LGLA 1301 Legal Research & Writing.

**LGLA 2335 ADVANCED CIVIL LITIGATION  
3 lec (3 Cr.)**

This course provides opportunities to implement advanced civil litigation techniques and builds upon skills acquired in prior civil litigation courses with emphasis on the paralegal's roles. Common law and statutory civil litigation concepts, ethical obligations of the paralegal assisting in civil litigation work, and alter-

native dispute resolution processes are reviewed.

Prerequisites: LGLA 1313, LGLA 1311, LGLA 1345, ENGL 1301.

**LGLA 2388 INTERNSHIP - PARALEGAL/LEGAL ASSISTANT (CAPSTONE)  
1 lec/2 lab (3 Cr.)**

An experience external to the college for an advanced student in a specialized field involving a written agreement between the educational institution and a business or industry. Mentored and supervised by a workplace employee, the student achieves objectives that are developed and documented by the college and that are directly related to specific occupational outcomes. This may be a paid or unpaid experience. Requires approval of the instructor. Requires 120 hours in the workplace.

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## **MATHEMATICS (MATH)**

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**MATH 1314 COLLEGE ALGEBRA  
3 lec (3 Cr.)**

This course meets degree requirements for most non-science majors and provides a foundation for further studies in mathematics. Topics include linear equations and inequalities, second-degree relations and functions, polynomial functions, rational functions, exponential and logarithmic functions, systems of equations and inequalities, matrices and determinants and sequences and series. Prerequisites: MTH 1312, or meeting college algebra standard on THEA or the basic skills assessment test.

**MATH 1316 PLANE TRIGONOMETRY  
3 lec (3 Cr.)**

This course meets the degree requirements of science, science-related and engineering majors. Topics include definition and use of trigonometric functions; solution of right triangles and oblique triangles; use of degree measure and radian measure; application of angular velocity and acceleration; fundamental identities; graphs of trigonometric functions; solutions of trigonometric equations with applications; and investigation of complex numbers and vectors. Prerequisite: MATH 1314 or a satisfactory score on THEA or the basic skills assessment test.

**MATH 1324 MATH FOR BUSINESS & SOCIAL SCIENCES I  
3 lec (3 Cr.)**

This course presents some of the mathematical tools that are useful in the analysis of business and social science problems. Topics include functions and graphs, linear and higher order equations, systems of equations, matrices, linear programming, math of finance, logarithms, sets, and probability. Prerequisites: MTH 1312, or a satisfactory score on THEA or the basic skills assessment test.

**MATH 1325 MATH FOR BUSINESS & SOCIAL SCIENCES II**

**3 lec (3 Cr.)**

This course presents some of the mathematical tools that are useful in the analysis of business and economic problems and is a continuation of MATH 1324. The course begins with an introduction to probability and statistics and continues with an introduction to differential and integral calculus and applications. Prerequisite: MATH 1324 or MATH 1314.

**MATH 1332 COLLEGE MATH I**

**3 lec (3 Cr.)**

This course is designed primarily for non-science majors and liberal arts majors. It is a survey of topics in mathematics that includes problem solving, sets, logic, numeration and mathematical systems, number theory, the real number system, conversion between the English and metric system, and math of finances. Prerequisite: MTH 1074 or a satisfactory score on THEA or the basic skills assessment test. Students who plan on transferring to a senior institution should check the transferability of this course.

**MATH 1350 MATH FOR EDUCATION MAJORS I**

**3 lec (3 Cr.)**

This course is designed for education majors. This course includes concepts of sets, functions, numerations systems, number theory, and properties of natural number, integers, rational and real number systems with an emphasis on problem solving and critical thinking. Prerequisite: college algebra.

**MATH 1351 MATH FOR EDUCATION MAJORS II**

**3 lec (3 Cr.)**

This course is designed for education majors. This course includes concepts of geometry, probability, and statistics as well as applications of the algebraic properties of real numbers to concepts of measurement with an emphasis on problem solving and critical thinking. Prerequisite: MATH 1350 (C or higher).

**MATH 2315 CALCULUS III**

**3 lec (3 Cr.)**

This course meets the degree requirements for most science, science-related, engineering, and mathematics majors. It is a continuation of MATH 2414. Topics include vectors, surfaces, vector-valued functions, partial differentiation, multiple integrals and vector calculus. Prerequisite: MATH 2414.

**MATH 2318 LINEAR ALGEBRA**

**3 lec (3 Cr.)**

This course meets the degree requirements for most science, science-related, engineering, and mathematics majors. Topics include: finite dimensional vector spaces, linear transformations and matrices, quadratic forms, and eigenvalues and eigenvectors. Prerequisite: MATH 2414.

**MATH 2320 DIFFERENTIAL EQUATIONS**

**3 lec (3 Cr.)**

This course is designed for mathematics and science majors. Topics include techniques for solving linear homogeneous and non-homogeneous differential equations; series solutions and special equations; and the solution of higher-order differential equations. Prerequisite: MATH 2414.

**MATH 2342 ELEMENTARY STATISTICAL METHODS**

**3 lec (3 Cr.)**

Presentation and interpretation of data, probability, sampling, correlation and regression, analysis of variance, and the use of statistical software.

**MATH 2412 PRE-CALCULUS WITH ANALYTIC GEOMETRY**

**4 lec (4 Cr.)**

Applications of algebra and trigonometry to the study of elementary functions and their graphs including polynomial, rational, exponential, logarithmic, and trigonometric functions. May include topics from analytical geometry. Prerequisite: satisfactory score on THEA or the basic skills assessment test and a strong background in high school mathematics.

**MATH 2413 CALCULUS I WITH ANALYTIC GEOMETRY**

**4 lec (4 Cr.)**

This course meets the degree requirements of most science, science-related, and engineering majors. Topics include limits, analytic geometry, derivatives and curve sketching, antiderivatives including trigonometric functions, definite integrals, and applications of definite integrals. Prerequisite: high school pre-calculus, MATH 1316, or MATH 2412.

**MATH 2414 CALCULUS II WITH ANALYTIC GEOMETRY**

**4 lec (4 Cr.)**

This course meets the degree requirements of most science, science-related, and engineering majors. It is a continuation of MATH 2413. Topics include plane analytic geometry, differentiation and integration of exponential, logarithmic, trigonometric, hyperbolic, inverse trigonometric and inverse hyperbolic functions; techniques and applications of integration including integration by parts, trigonometric substitutions, partial frac-

tions, use of tables, and finding centroids; improper integrals; and infinite series including Taylor & MacLaurin series. Prerequisite: MATH 2413.

## **MEDICAL LABORATORY TECHNOLOGY (MLT)**

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### **MLAB 1201 INTRODUCTION TO CLINICAL LAB SCIENCE**

**1 lec/3 lab (2 Cr.)**

An introduction to clinical laboratory science including quality control, laboratory math, safety, basic laboratory equipment and techniques, medical terminology, accreditation and certification. Prerequisite: permission of instructor.

### **MLAB 1227 COAGULATION**

**1 lec/2 lab (2 Cr.)**

This course includes a study of the mechanism of coagulation, coagulation disorders, and procedures used to evaluate the coagulation process. Prerequisite: permission of instructor.

### **MLAB 1235 IMMUNOLOGY/SEROLOGY**

**2 lec/1 lab (2 Cr.)**

This course includes the theory and application of basic immunology including the immune response, principles of antigen-antibody reactions, and the principles of serological procedures. Prerequisite: permission of instructor.

### **MLAB 2238 ADVANCED TOPICS**

**2 lec (2 Cr.)**

This course examines the integration of all areas of the clinical laboratory and correlates laboratory testing data with diagnostic applications and pathophysiology using critical thinking skills. Literature research is conducted culminating in a written report. A passing grade is required on the exit exam to complete the course. This course is taken during the last semester of the program. Prerequisite: permission of instructor.

### **MLAB 1311 URINALYSIS AND BODY FLUIDS**

**2 lec/3 lab (3 Cr.)**

This course includes the study of renal anatomy and physiology as well as physical, chemical and microscopic examination of urine, cerebrospinal fluid and other body fluids in health and disease. Prerequisite: permission of instructor.

### **MLAB 1331 PARASITOLOGY/MYCOLOGY**

**2 lec/3 lab (3 Cr.)**

This course includes a study of the taxonomy, morphology, and pathogenesis of human parasites, fungi and viruses with emphasis on laboratory identification of these organisms. Prerequisite: permission of instructor.

### **MLAB 1415 HEMATOLOGY**

**3 lec/3 lab (4 Cr.)**

This course includes the morphology and function of blood cells in health and disease, the maturation sequence of blood cells, and theory and practical application of routine and special hematology procedures, both manual and automated. Prerequisite: permission of instructor.

### **MLAB 1460 CLINICAL I**

**18 lab (4 Cr.)**

This course includes detailed education, training, work-based experience and direct patient/client care at a clinical site in the following areas: phlebotomy, hematology, urinalysis, and immunology/serology. This clinical is generally taken between the student's freshman and sophomore year during the summer. Prerequisite: permission of instructor.

### **MLAB 2401 CLINICAL CHEMISTRY**

**3 lec/4 lab (4 Cr.)**

This course includes a study of the biochemistry and physiology of normal and pathological processes and the chemical variations that occur during disease. Laboratory techniques including the procedure, principles and clinical significance of tests used to analyze the following biochemical processes is covered: electrolytes, acid-base balance, proteins, carbohydrates, lipids, enzymes, metabolites, endocrine function, and toxicology. Prerequisite: permission of the instructor.

### **MLAB 2431 IMMUNOHEMATOLOGY**

**3 lec/3 lab (4 Cr.)**

This course includes the study of red blood cell antigens, antibodies, donor selection and processing, blood components, hemolytic transfusion reactions, autoimmune hemolytic anemia, and hemolytic disease of the newborn. Also included is blood group and Rh typing, antibody screens, antibody identification, compatibility testing, elution, and absorption techniques. Prerequisite: permission of instructor.

### **MLAB 2434 CLINICAL MICROBIOLOGY**

**3 lec/4 lab (4 Cr.)**

This course includes a detailed study of bacteria found in humans as pathogens or normal flora. Emphasis is placed on the laboratory identification of bacteria, specimen collection, and determination of antimicrobial susceptibility. Prerequisite: permission of instructor.

### **MLAB 2460 CLINICAL II**

**18 lab (4 Cr.)**

This course includes detailed education, training, work-based experience and direct patient/client care at a clinical site in the following areas: microbiology, clinical chemistry, parasitology, and immunohematology. Prerequisite: permission of instructor.

### **PLAB 1223 PHLEBOTOMY**

**1 lec/2 lab (Cr. 2)**

This course teaches skill development in the performance of a variety of blood collection methods using proper techniques and universal precautions. Included are vacuum and butterfly collection devices, syringes, capillary skin puncture, butterfly needles and blood culture, and specimen collection on adults, children, and infants. Emphasis is placed on infection prevention, proper patient identification, labeling of specimens and quality assurance, specimen handling, processing, and accessioning. Prerequisite: permission of instructor.

## **MULTIMEDIA TECHNOLOGY (ARTC, GRPH, IMED)**

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### **ARTC 1302 DIGITAL IMAGING I**

**2 lec/4 lab (3 Cr.)**

Digital imaging using raster image editing and/or image creation software: scanning, resolution, file formats, output devices, color systems, and image-acquisitions.

### **ARTC 1313 DIGITAL PUBLISHING I**

**2 lec/3 lab (3 Cr.)**

The fundamentals of using digital layout as a primary publishing tool and the basic concepts and terminology associated with typography and page layout.

### **ARTC 1317 TYPOGRAPHY**

**2 lec/2 lab (3 Cr.)**

A study of letterforms and typographic concepts as elements of graphic communication. Emphasis on developing a current, practical typographic knowledge based on industry standards.

### **ARTC 1359 VISUAL DESIGN FOR NEW MEDIA**

**2 lec/2 lab (3 Cr.)**

Visual design elements as they relate to the application painter. Emphasizes aesthetics and visual problem solving such as design issues, color management, hierarchy of information, image optimization, and effective layout.

### **ARTV 1303 BASIC ANIMATION**

**2 lec/4 lab (3 Cr.)**

Examination of concepts, characters and storyboards for basic animation production. Emphasis on creating movement and expression utilizing traditional or electronically generated image sequences. Prerequisite: GRPH 1359.

### **ARTV 1341 3-D ANIMATION I**

**2 lec/4 lab (3 Cr.)**

Instruction in three-dimensional (3-D) modeling and rendering techniques including lighting, staging, camera, and special effects. Emphasis on 3-D modeling building blocks using primitives to create simple or complex objects. Prerequisite: GRPH 1359.

### **ARTV 1343 DIGITAL SOUND**

**2 lec/4 lab (3 Cr.)**

Instruction in digitizing sound and incorporating it into multimedia titles for various delivery systems. Emphasis on compression issues, sampling, synchronizing, and resource management.

### **ARTV 1351 DIGITAL VIDEO**

**2 lec/4 lab (3 Cr.)**

Skill development in producing and editing video and sound for multimedia productions. Emphasis on the capture, editing, and outputting of video using a desktop digital video workstation.

### **ARTV 2341 ADVANCED DIGITAL VIDEO**

**2 lec/4 lab (3 Cr.)**

Instruction in the use of advanced digital video techniques for post-production. Emphasis on generation and integration of special effects, 2-D animation, and 3-D animation for film, video, CD-ROM, and the Internet. Exploration of new and emerging compression and video streaming technologies. Prerequisite: ARTV 1351.

### **GRPH 1359 OBJECT-ORIENTED COMPUTER GRAPHICS**

**2 lec/4 lab (3 Cr.)**

Mastery of tools and transformation options of an industry-standard drawing program to create complex illustrations and follow them through to the color output stage. Mastery in the use of basic elements of good layout and design principles and use the capabilities specific to vector (object-oriented) drawing software to manipulate both text and graphics with emphasis on the use of Bezier curves. Acquisition of images via scanning and the creative use of clip art is included.

### **IMED 1301 INTRODUCTION TO MULTIMEDIA**

**3 lec (3 Cr.)**

A survey of theories, elements, and hardware/software components of multimedia. Topics include digital-image editing, digital sound and video editing, animation, web page development, and interactive presentations. There will be an emphasis on conceptualizing and producing effective multimedia presentations.

### **IMED 1345 INTERACTIVE MULTIMEDIA I**

**2 lec/4 lab (3 Cr.)**

Exploration of the use of graphics and sound to create time-based interactive multimedia animations using industry-standard authoring software. Prerequisite: ARTC 1302, GRPH 1359.

### **IMED 1416 WEB PAGE DESIGN I**

**3 lec/4 lab (4 Cr.)**

Instruction in Internet web page design and related graphic design issues including mark-up languages, Web sites, Internet access software, and interactive topics.

Prerequisite: ARTC 1302, GRPH 1359.

### **IMED 2301 INSTRUCTIONAL DESIGN**

**3 lec (3 Cr.)**

An in-depth study of the instructional design process based on learning theories including evaluation of models and design examples.

### **IMED 2366 PRACTICUM**

**0 lec/21 lab (3 Cr.)**

Practical general training and experiences in the workplace. The college with the employer develop and document an individualized plan for the student. The plan relates the workplace training and experiences to the student's general and technical course of study. The guided external experiences may be paid or unpaid. This course may be repeated if topics and learning outcomes vary.

Prerequisite: approval of the instructor.

## **MUSIC (MUSI)**

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### **MUSI 1159, 2159 MUSICAL THEATER**

**1 lec/4 lab (1 Cr.)**

Study and performance of works from musical theater repertoire.

### **MUSI 1211 MUSIC THEORY I**

**2 lec/1 lab (2 Cr.)**

A study of basic elements relating to the composition of music in the Western world. Includes such concepts as scales, key signatures, intervals, triads, chords, meters, and harmonic analysis. Prior knowledge of basic music fundamentals is necessary including staff, clefs, time signatures, pitches, and rhythms. Must be taken concurrently with Sight-Singing and Ear Training I. (MUSI-1216).

### **MUSI 1212 MUSIC THEORY II**

**2 lec/1 lab (2 Cr.)**

Continuing study of basic elements relating to the composition of music in the Western world. Includes such concepts as non-harmonic tones, figured bass, part-writing, voice leading, modulation, secondary dominants, harmonic analysis, and part-writing. Must be taken concurrently with MUSI 1217 Sight-Singing and Ear Training II. Prerequisite: MUSI 1211 or equivalent.

### **MUSI 1216 ELEMENTARY SIGHT-SINGING AND EAR TRAINING I**

**2 lec/1 lab (2 Cr.)**

Singing in the treble and bass clefs intonation to alto and tenor clefs. Major and minor mode melodies with harmonic backgrounds of the principal chords. Aural study of beats, their division and subdivisions. Intervals and melodies having backgrounds of the principle chords. Harmonic progressions of the principal chords. To be taken concurrently with Theory I (MUSI 1211).

### **MUSI 1217 ELEMENTARY SIGHT-SINGING AND**

### **EAR-TRAINING II**

**2 lec/1 lab (2 Cr.)**

A continuation of MUSI 1216. Prerequisite: MUSI 1216 or equivalent. To be taken concurrently with Theory II (MUSI 1212).

### **MUSI 1301 MUSIC FUNDAMENTALS**

**3 lec (3 Cr.)**

Introduction to the elements of music theory: scales, intervals, key triads, elementary ear-training, keyboard harmony, notation, meter, and rhythm.

### **MUSI 1306 MUSIC APPRECIATION**

**3 lec (3 Cr.)**

Survey of music for the non-music major. Includes review of the fundamentals of music and a survey of music and composers from the Medieval period through the 20th Century.

### **MUSI 1308 MUSIC LITERATURE**

**3 lec (3 Cr.)**

In-depth survey of the historical background of music and compositional techniques of composers in the various musical eras. Covers the Medieval to Classical eras.

### **MUSI 1309 MUSIC LITERATURE**

**3 lec (3 Cr.)**

A continuation of MUSI 1308. Begins with the Romantic era and continues into the Twentieth Century including modern day composers.

### **MUSI 1310 AMERICAN POPULAR MUSIC**

**3 lec (3 Cr.)**

A survey of American popular music designed for non-music majors. Traces the development of Native American, English, African, and Hispanic music into their current forms: blues, jazz, gospel, Cajun, country, folk, rock 'n' roll, soul, salsa, tejano, asian, and hip hop.

### **MUSI 2211 MUSIC THEORY III**

**2 lec/1 lab (2 Cr.)**

A continuation of MUSI 1212. Includes such concepts as part-writing and keyboard study of figured bass, exercises, composition in various small forms, and melodic harmonizations requiring all diatonic seventh chords, altered chords, ninth, 11th and 13th chords. To be taken concurrently with MUSI 2216 Advanced Sight-Singing and Ear-Training III. Prerequisites: MUSI 1211 & MUSI 1212, or equivalents.

### **MUSI 2212 MUSIC THEORY IV**

**2 lec/1 lab (2 Cr.)**

A continuation of MUSI 2211. Prerequisite: MUSI 2211 or equivalent. Designed to be taken concurrently with Advanced Sight-Singing and Ear Training IV (MUSI 2217).

### **MUSI 2216 ADVANCED SIGHT-SINGING AND**

### **EAR-TRAINING III**

**2 lec/1 lab (2 Cr.)**

Singing modulations to closely related keys and modal melodies. Aural study of harmonic modulations, all diatonic seventh chords. Singing remote modulations and difficult melodies. Aural study of unusual and mixed meters: altered chords; ninth, 11th and 13th cords. To be taken concurrently with Theory III (MUSI 2211).

### **MUSI 2217 ADVANCED SIGHT-SINGING AND EAR-TRAINING IV**

**2 lec/1 lab (2 Cr.)**

A continuation of MUSI 2216. Prerequisite: MUSI 2216 or equivalent. Designed to be taken concurrently with Theory IV (MUSI 2212).

### **ENSEMBLES**

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#### **MUSI 1121, 1122, 2121, 2122 MARCHING AND CONCERT BAND**

**1 lec/5 lab (1 Cr.)**

Required of all wind and percussion majors each semester. Performs at college athletic events and parades. Presents concerts. Open to all students by consent of director. Five rehearsals per week and all performances required. Marching Band may be substituted for KINE.

#### **MUSI 1131, 1132, 2131, 2132 JAZZ/STAGE BAND**

**2 lec/2 lab (1 Cr.)**

A large ensemble that explores all aspects of jazz from improvisation and composition to the performance requirements of such various styles as swing, Latin, ballad, and funk. Membership through audition only.

#### **MUSI 1133, 1134, 2133, 2134 BRASS ENSEMBLE**

**2 lab (1 Cr.)**

Development of musical concepts through a variety of standard brass repertoire for small ensemble.

#### **MUSI 1136, 1137, 2136, 2137 WOODWIND ENSEMBLE**

**2 lab (1 Cr.)**

Development of musical concepts through a variety of standard woodwind repertoire for small ensemble.

#### **MUSI 1138, 1139, 2138, 2139 PERCUSSION ENS.**

**2 lab (1 Cr.)**

Development of musical concepts through a variety of standard percussion repertoire for small ensemble.

#### **MUSI 1141, 1142, 2141, 2142 COLLEGE CHORALE**

**3 lec/ 3 lab (1 Cr.)**

A large choir that performs a wide variety of music covering classical, Broadway, and popular. This group gives several performances each semester both on and off campus and also stages a large-scale musical in the spring. Membership is open to all students wishing to perform

and learn more about choral music. Membership through audition only.

#### **MUSI 1143, 1144, 2143, 2144 GUITAR ENSEMBLE**

**2 lab (1 Cr.)**

Development of musical concepts through a variety of standard guitar repertoire.

#### **MUSI 1151, 1152, 2151, 2152 COLLEGIATE SINGERS**

**2 lec/ 2 lab (1 Cr.)**

A small touring group that performs the more popular musical styles from pop to madrigals. This group gives several performances each semester both on and off campus. Membership is by audition or invitation only.

#### **MUSI 1153, 1154, 2153, 2154 CHAMBER SINGERS**

**2 lec/2 lab (1 Cr.)**

A medium-sized choir that performs chamber and classical music. This group gives several performances each semester both on and off campus. Membership is by audition or invitation only.

### **APPLIED MUSIC**

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#### **MUSI 1181 CLASS PIANO I**

**2 lab (1 Cr.)**

Class instruction in the fundamentals of keyboard technique for those with little or no piano background.

Designed for the music major in preparation for piano placement exams required by universities. \$40 lab fee.

#### **MUSI 1182 CLASS PIANO II**

**2 lab (1 Cr.)**

A continuation of MUSI 1181. Prerequisite: MUSI 1181 or consent of instructor.

#### **MUSI 1183, 1184 CLASS VOICE**

**2 lab (1 Cr.)**

Class instruction in fundamentals of correct breathing, tone production and diction. Laboratory course designed for students with little or no previous voice training to aid in developing a pleasing tone quality produced with ease and proper enunciation. \$40 lab fee.

#### **MUSI 1192 CLASS GUITAR I**

**2 lab (1 Cr.)**

Class instruction for beginning students in fundamentals of guitar techniques for those with little or no guitar background. \$40 lab fee.

#### **MUSI 1193 CLASS GUITAR II**

**2 lab (1 Cr.)**

A continuation of MUSI 1192. Prerequisite: MUSI 1192 or consent of instructor. \$40 lab fee.

#### **MUSI 2181 CLASS PIANO III**

**2 lab (1 Cr.)**

Class instruction for second-year music majors.  
Continued preparation for piano placement exams  
required by universities. Prerequisite: MUSI 1182 or  
consent of instructor. \$40 lab fee.

### **MUSI 2182 CLASS PIANO IV**

#### **2 lab (1 Cr.)**

A continuation of MUSI 2181. Prerequisite: MUSI 2181  
or consent of instructor. \$40 lab fee.

### **MUSI 2183, 2184 CLASS VOICE**

#### **2 lab (1 Cr.)**

A continuation of MUSI 1184. Prerequisite: MUSI 1184  
or consent of instructor. \$40 lab fee.

### **MUSI 2192 CLASS GUITAR III**

#### **2 lab (1 Cr.)**

Class instruction for second-year guitar students.  
Prerequisite: MUSI 1193 or consent of instructor.

### **PRIVATE MUSIC INSTRUCTION (MUAP)**

Students who enroll for private instruction in applied  
music must meet the following requirements for the  
amount of credit indicated for each course.

Credit:	1 semester hour
Lecture:	1 30-minute lesson per week (Semester Fee: \$50)
Credit:	2 semester hours
Lecture:	2 30-minute lessons or 1 hour lesson per week. (Semester Fee: \$90)

Students who register for private instruction in voice,  
piano, or instrumental must understand that all private  
instruction is scheduled TBA (to be arranged), meaning  
the day and time or lesson(s) each week is "to be  
arranged" with the teacher of that applied area.  
Consequently, the student must contact the teacher or  
arrange his/her lesson time(s) during the first week of the  
semester.

### **FLUTE - PRIVATE INSTRUCTION**

MUAP 1117 - Freshman - 30 min.  
MUAP 1118 - Freshman - 30 min.  
MUAP 1217 - Freshman - 1 hr.  
MUAP 1218 - Freshman - 1 hr.  
MUAP 2117 - Sophomore - 30 min.  
MUAP 2118 - Sophomore - 30 min.  
MUAP 2217 - Sophomore - 1 hr.  
MUAP 2218 - Sophomore - 1 hr.

### **OBOE - PRIVATE INSTRUCTION**

MUAP 1121 - Freshman - 30 min.  
MUAP 1122 - Freshman - 30 min.  
MUAP 1221 - Freshman - 1 hr.  
MUAP 1222 - Freshman - 1 hr.

MUAP 2121 - Sophomore - 30 min.  
MUAP 2122 - Sophomore - 30 min.  
MUAP 2221 - Sophomore - 1 hr.  
MUAP 2222 - Sophomore - 1 hr.

### **BASSOON - PRIVATE INSTRUCTION**

MUAP 1125 - Freshman - 30 min.  
MUAP 1126 - Freshman - 30 min.  
MUAP 1225 - Freshman - 1 hr.  
MUAP 1226 - Freshman - 1 hr.  
MUAP 2125 - Sophomore - 30 min.  
MUAP 2126 - Sophomore - 30 min.  
MUAP 2225 - Sophomore - 1 hr.  
MUAP 2226 - Sophomore - 1 hr.

### **CLARINET - PRIVATE INSTRUCTION**

MUAP 1129 - Freshman - 30 min.  
MUAP 1130 - Freshman - 30 min.  
MUAP 1229 - Freshman - 1 hr.  
MUAP 1230 - Freshman - 1 hr.  
MUAP 2129 - Sophomore - 30 min.  
MUAP 2130 - Sophomore - 30 min.  
MUAP 2229 - Sophomore - 1 hr.  
MUAP 2230 - Sophomore - 1 hr.

### **SAXOPHONE - PRIVATE INSTRUCTION**

MUAP 1133 - Freshman - 30 min.  
MUAP 1134 - Freshman - 30 min.  
MUAP 1233 - Freshman - 1 hr.  
MUAP 1234 - Freshman - 1 hr.  
MUAP 2133 - Sophomore - 30 min.  
MUAP 2134 - Sophomore - 30 min.  
MUAP 2233 - Sophomore - 1 hr.  
MUAP 2234 - Sophomore - 1 hr.

### **TRUMPET - PRIVATE INSTRUCTION**

MUAP 1137 - Freshman - 30 min.  
MUAP 1138 - Freshman - 30 min.  
MUAP 1237 - Freshman - 1 hr.  
MUAP 1238 - Freshman - 1 hr.  
MUAP 2137 - Sophomore - 30 min.  
MUAP 2138 - Sophomore - 30 min.  
MUAP 2237 - Sophomore - 1 hr.  
MUAP 2238 - Sophomore - 1 hr.

### **HORN - PRIVATE INSTRUCTION**

MUAP 1141 - Freshman - 30 min.  
MUAP 1142 - Freshman - 30 min.  
MUAP 1241 - Freshman - 1 hr.  
MUAP 1242 - Freshman - 1 hr.  
MUAP 2141 - Sophomore - 30 min.  
MUAP 2142 - Sophomore - 30 min.  
MUAP 2241 - Sophomore - 1 hr.  
MUAP 2242 - Sophomore - 1 hr.

### **TROMBONE - PRIVATE INSTRUCTION**

MUAP 1145 - Freshman - 30 min.

MUAP 1146 - Freshman - 30 min.  
MUAP 1245 - Freshman - 1 hr.  
MUAP 1246 - Freshman - 1 hr.  
MUAP 2145 - Sophomore - 30 min.  
MUAP 2146 - Sophomore - 30 min.  
MUAP 2245 - Sophomore - 1 hr.  
MUAP 2246 - Sophomore - 1 hr.

#### **EUPHONIUM/BARITONE - PRIVATE INSTRUCTION**

MUAP 1149 - Freshman - 30 min.  
MUAP 1150 - Freshman - 30 min.  
MUAP 1249 - Freshman - 1 hr.  
MUAP 1250 - Freshman - 1 hr.  
MUAP 2149 - Sophomore - 30 min.  
MUAP 2150 - Sophomore - 30 min.  
MUAP 2249 - Sophomore - 1 hr.  
MUAP 2250 - Sophomore - 1 hr.

#### **TUBA - PRIVATE INSTRUCTION**

MUAP 1153 - Freshman - 30 min.  
MUAP 1154 - Freshman - 30 min.  
MUAP 1253 - Freshman - 1 hr.  
MUAP 1254 - Freshman - 1 hr.  
MUAP 2153 - Sophomore - 30 min.  
MUAP 2154 - Sophomore - 30 min.  
MUAP 2253 - Sophomore - 1 hr.  
MUAP 2254 - Sophomore - 1 hr.

#### **PERCUSSION - PRIVATE INSTRUCTION**

MUAP 1157 - Freshman - 30 min.  
MUAP 1158 - Freshman - 30 min.  
MUAP 1257 - Freshman - 1 hr.  
MUAP 1258 - Freshman - 1 hr.  
MUAP 2157 - Sophomore - 30 min.  
MUAP 2158 - Sophomore - 30 min.  
MUAP 2257 - Sophomore - 1 hr.  
MUAP 2258 - Sophomore - 1 hr.

#### **GUITAR - PRIVATE INSTRUCTION**

MUAP 1161 - Freshman - 30 min.  
MUAP 1162 - Freshman - 30 min.  
MUAP 1261 - Freshman - 1 hr.  
MUAP 1262 - Freshman - 1 hr.  
MUAP 2161 - Sophomore - 30 min.  
MUAP 2162 - Sophomore - 30 min.  
MUAP 2261 - Sophomore - 1 hr.  
MUAP 2262 - Sophomore - 1 hr.

#### **ORGAN - PRIVATE INSTRUCTION**

MUAP 1165 - Freshman - 30 min.  
MUAP 1166 - Freshman - 30 min.  
MUAP 1265 - Freshman - 1 hr.  
MUAP 1266 - Freshman - 1 hr.  
MUAP 2165 - Sophomore - 30 min.  
MUAP 2166 - Sophomore - 30 min.  
MUAP 2265 - Sophomore - 1 hr.

MUAP 2266 - Sophomore - 1 hr.

#### **PIANO (Keyboard) PRIVATE INSTRUCTION**

MUAP 1169 - Freshman - 30 min.  
MUAP 1170 - Freshman - 30 min.  
MUAP 1269 - Freshman - 1 hr.  
MUAP 1270 - Freshman - 1 hr.  
MUAP 2169 - Sophomore - 30 min.  
MUAP 2170 - Sophomore - 30 min.  
MUAP 2269 - Sophomore - 1 hr.  
MUAP 2270 - Sophomore - 1 hr.

#### **VOICE - PRIVATE INSTRUCTION**

MUAP 1181 - Freshman - 30 min.  
MUAP 1182 - Freshman - 30 min.  
MUAP 1281 - Freshman - 1 hr.  
MUAP 1282 - Freshman - 1 hr.  
MUAP 2181 - Sophomore - 30 min.  
MUAP 2182 - Sophomore - 30 min.  
MUAP 2281 - Sophomore - 1 hr.  
MUAP 2282 - Sophomore - 1 hr.

## **NURSING**

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#### **ASSOCIATE DEGREE NURSING**

*(RNSG) All RNSG courses require admission to the ADN Program*

#### **RNSG 1201 PHARMACOLOGY**

##### **1 lec/4 lab (2 Cr.)**

Introduction to the science of pharmacology with emphasis on the actions, interactions, adverse effects, and nursing implications of each drug classification. Topics include the roles and responsibilities as well as the skills of the nurse in safe administration of medications within a legal/ethical framework. Prerequisites: BIOL 2401, BIOL 2402, BIOL 2420. Corequisites: RNSG 1413, RNSG 1261.

#### **RNSG 1261 CLINICAL--NURSING FOUNDATIONS**

##### **16 clinical hours a week for eight weeks (2 Cr.)**

Clinical experience involving direct patient/client nursing care in selected longterm care and acute care clinical facilities. The student will be expected to apply foundations of nursing practice theory, concepts, and skills as well as demonstrate legal and ethical behavior, safety practices, interpersonal and teamwork skills, and appropriate communication. Prerequisites: BIOL 2401, BIOL 2402, BIOL 2420. Corequisites: RNSG 1413, RNSG 1201.

#### **RNSG 1262 CLINICAL--NURSING PRACTICE I FOR ARTICULATING STUDENTS**

##### **16 clinical hours a week (2 Cr.)**

Clinical experience involving direct patient/client care in selected clinical facilities. The student will be expected

to begin the application of the concepts and skills of the associate degree nurse with adult and child population as well as begin to demonstrate RN-level legal and ethical behavior, safety practices, interpersonal and teamwork skills, and appropriate communication. Prerequisites: 28 hours of general education courses specified on degree plan. Corequisite: RNSG 1417.

### **RNSG 1263 CLINICAL--NURSING PRACTICE II FOR ARTICULATING STUDENTS**

**16 hours a week (2 Cr.)**

Clinical experience involving direct patient/client care of adult populations in selected clinical facilities. The student will be expected to expand the application of concepts and skills of the associate degree nurse as well as demonstrate RN-level legal and ethical behavior, safety practices, interpersonal and teamwork skills, and appropriate communication. Prerequisites: RNSG 1417, RNSG 1262. Corequisite: RNSG 1442.

### **RNSG 1361 CLINICAL--NURSING CARE OF CLIENTS WITH COMMON HEALTH CARE NEEDS**

**12 clinical hours a week (3 Cr.)**

Clinical experience involving the provision of nursing care to diverse clients/families experiencing surgical, locomotion, maladjustment, and reproductive common health care needs as well as care of the woman and family throughout the maternity cycle in selected clinical facilities. The student will be expected to apply related theory, concepts, and skills as well as demonstrate legal and ethical behavior, safety practices, interpersonal and teamwork skills, and appropriate communication. Prerequisites: RNSG 1413, RNSG 1261, RNSG 1201. Corequisite: RNSG 2504.

### **RNSG 1413 FOUNDATIONS OF NURSING PRACTICE**

**3 lec/4 lab (4 Cr.)**

Introduction to the role of the associate degree nurse as a provider of care, coordinator of care, and member of a profession. Topics include knowledge, judgment, skills and professional values within a legal/ethical framework. Prerequisites: BIOL 2401, BIOL 2402, BIOL 2420. Co-requisites: RNSG 1261, RNSG 1201.

### **RNSG 1417 CONCEPTS OF NURSING PRACTICE I FOR ARTICULATING STUDENTS**

**8 lec/8 lab (4 Cr.)**

Provides the LVN articulating student the opportunity to examine the role of the associate degree nurse. Incorporates application of a systematic problem-solving process and critical thinking skills, which includes a focus on the RN role with adult and child populations in selected settings. Includes competency in RN-level knowledge, judgment, skills, and professional values within a legal/ethical framework. Prerequisites: 28

hours of general education courses specified on degree plan. Corequisite: RNSG 1262.

### **RNSG 1442 CONCEPTS OF NURSING PRACTICE II FOR ARTICULATING STUDENTS**

**8 lec/8 lab (4 Cr.)**

Provides the LVN articulating student the opportunity to expand the examination of the role of the associate degree nurse and apply systematic problem-solving processes and critical thinking skills. Focuses on the beginning of utilization of RN-level leadership and management skills in the provision of care to small groups of adult clients and their families in selected settings. Includes RN-level competency in knowledge, judgment, skills, and professional values within a legal/ethical framework. Prerequisites: RNSG 1417, RNSG 1262. Corequisite: RNSG 1263.

### **RNSG 2161 CLINICAL--MENTAL HEALTH NURSING**

**4 clinical hours a week (1 Cr.)**

Clinical experience involving patient/client nursing care in selected mental health clinical facilities. The student will be expected to apply mental health concepts and skills as well as demonstrate legal and ethical behavior, safety practices, interpersonal and teamwork skills, and appropriate communication. Prerequisites: RNSG 2514, RNSG 2461. Corequisite: RNSG 2213.

### **RNSG 2201 CARE OF CHILDREN AND FAMILIES**

**3 lec/8 lab in a six week summer session (2 Cr.)**

Study of concepts related to the provision of nursing care for children and families. Content includes applicable competencies in knowledge, judgement, skills, and professional values within a legal/ethical framework. Prerequisites: RNSG 2504, RNSG 1361. Corequisite: RNSG 2261.

### **RNSG 2213 MENTAL HEALTH NURSING**

**2 lec/ 1 lab (2 Cr.)**

Study of the principles and concepts of mental health, psychopathology, and treatment modalities related to mental health nursing care of clients and their families. Emphasis on therapeutic communication, critical thinking skills, and a systematic problem-solving process as a framework for providing care to clients and families experiencing mental health problems as well as the role of the associate degree nurse in caring for clients and families experiencing mental health problems. Prerequisites: RNSG 2514, RNSG 2461. Corequisite: RNSG 2161.

### **RNSG 2261 CLINICAL--NURSING CARE OF CHILDREN AND FAMILIES**

**16 clinical hours a week for 6 weeks (2 Cr.)**

Clinical experience involving the provision of nursing care to children and families in selected clinical facili-

ties. The student will be expected to apply nursing of children and families theory, concepts, and skills as well as demonstrate legal and ethical behavior, safety practices, interpersonal and teamwork skills, and appropriate communication. Prerequisites: RNSG 2504, RNSG 1361. Corequisite: RNSG 2201.

### **RNSG 2262 CLINICAL--INTEGRATED CLIENT MANAGEMENT**

**12 clinical hours a week (2 Cr.)**

Clinical experience involving direct patient/client care in selected clinical facilities. The student will be expected to apply management/leadership skills of the associate degree nurse as well as demonstrate critical thinking skills, legal and ethical behavior, safety practices, interpersonal and teamwork skills, and appropriate communication. Prerequisites: RNSG 2213, RNSG 2161. Corequisite: RNSG 2435.

### **RNSG 2435 INTEGRATED CLIENT CARE MGT. 5 lec/week (4 Cr.)**

Application of client assessment skills, critical thinking, and independent nursing interventions to care for diverse clients/families throughout the lifespan whose health care needs may be difficult to predict. Emphasis on collaborative clinical decision-making, nursing leadership skills, and client management. Topics include the significance of professional development, trends in nursing and health care, and applicable knowledge, judgment, skills, and professional values within a legal/ethical framework. Prerequisites: RNSG 2213, RNSG 2161. Corequisite: RNSG 2262. Exit exam requirement.

### **RNSG 2461 CLINICAL--NURSING CARE OF CLIENTS WITH COMPLEX HEALTH CARE NEEDS**

**16 clinical hours a week in a full semester (4 Cr.)**

Clinical experience involving the provision of nursing care to patients/clients with complex health care needs in selected clinical facilities. The student will be expected to apply related theory, concepts, and skills as well as demonstrate legal and ethical behavior, safety practices, interpersonal and teamwork skills, and appropriate communication. Prerequisites: RNSG 2201/2261 or RNSG 1442/1263. Corequisite: RNSG 2514.

### **RNSG 2504 CARE OF THE CLIENT WITH COMMON HEALTH CARE NEEDS**

**4 lec/4 lab (5 Cr.)**

Application of a systematic problem-solving process and critical-thinking skills to the provision of nursing care to diverse clients/families across the lifespan experiencing surgical, locomotion, maladjustment, and reproductive common health care needs. Care of the woman and family throughout the maternity cycle-pregnancy, labor and delivery, and puerperium, along with care of the normal neonate are included in this course. Also included is the

exploration of various opportunities for collaboration with members of the multidisciplinary health care team. Content includes applicable competencies in knowledge, judgement, skills, and professional values within a legal/ethical framework. Prerequisites: RNSG 1413, RNSG 1261, RNSG 1201. Corequisite: RNSG 1361.

### **RNSG 2514 CARE OF THE CLIENT WITH COMPLEX HEALTH CARE NEEDS**

**4 lec/4 lab (5 Cr.)**

Application of a systematic problem-solving process and critical-thinking skills to provide nursing care to diverse clients/families across the lifespan with complex health care needs in health maintenance and health restoration. Opportunities to collaborate with members of the multidisciplinary health care team. Topics include the role of the registered nurse as client advocate and coordinator of care with applicable competencies in knowledge, judgment, skills, and professional values within a legal/ethical framework. Prerequisites: RNSG 2201/2261 or RNSG 1442/1263. Corequisite: RNSG 2461.

### **VOCATIONAL NURSING (VN)**

*All VNSG Courses require admission to the VN Program.*

### **VNSG 1122 VOCATIONAL NURSING CONCEPTS 1 lec/0 lab (1 Cr.)**

Introduction to the nursing profession and its responsibilities and the legal and ethical issues in nursing practice. Included also are concepts related to the physical, emotional, and psychosocial self-care of the learner/professional. Corequisites: VNSG 1505, 1423, 1331, 1327, 1226, 1260.

### **VNSG 1133 GROWTH AND DEVELOPMENT 1 lec/0 lab (1 Cr.)**

This courses focuses on the study of the basic aspects of growth and development throughout the lifespan. Emphasis is placed on growth and development of the individual's body, mind, and personality as influenced by the environment. Prerequisites: VNSG 1505, 1423, 1331, 1327, 1122, 1226, 1260. Corequisites: VNSG 1429, 1334, 2431, 1230, 1460.

### **VNSG 1191 SPECIAL TOPICS IN PRACTICAL NURSING (ROLE TRANSITION)**

**0 lec/2 lab (1 Cr.) (12-week summer course)**

This courses focuses on the role transition of the student nurse to the graduate nurse with attention to the skills, knowledge, attitudes, and behaviors pertinent to the professional development of the student. Prerequisites: VNSG 1133, 1429, 1334, 2431, 1230, 1460. Corequisites: VNSG 1432, 1136, 1238, 1219, 1261.

### **VNSG 1219 PROFESSIONAL DEVELOPMENT**

**2 lec (2 Cr.) (12-week summer course)**

This course is a study of the importance of professional growth. Topics include the role of the licensed vocational nurse in the multi-disciplinary health care team, professional organizations, and continuing education.

Prerequisites: VNSG 1133, 1429, 1334, 2431, 1230, 1460. Corequisites: VNSG 1432, 1136, 1238, 1191, 1261.

**VNSG 1236 MENTAL HEALTH****2 lec (2 Cr.) (12-week summer course)**

This course is an introduction to the principles and theories of positive mental health and human behaviors.

Topics include emotional responses, coping mechanism, and therapeutic communication skills. Prerequisites:

VNSG 1133, 1429, 1334, 2431, 1230, 1460.

Corequisites: VNSG 1432, 1238, 1219, 1191, 1261.

**VNSG 1238 MENTAL ILLNESS****2 lec (2 Cr.) (12-week summer course)**

This course is a study of human behavior with emphasis on emotional and mental abnormalities and modes of treatment incorporating the nursing process.

Prerequisites: VNSG 1133, 1429, 1334, 2431, 1230, 1460. Corequisites: VNSG 1432, 1136, 1219, 1191, 1261.

**VNSG 1260 CLINICAL I PRACTICAL NURSE****16 clinical hours a week for eight weeks (2 Cr.)**

Clinical experience focuses on direct client nursing care in selected long-term care and acute-care facilities. The student will be expected to apply foundations of nursing practice, theory, concepts and skills, demonstrate legal and ethical behavior, safety practices, interpersonal and teamwork skills, and utilize appropriate communication with clients, families, staff, and peers. Corequisites: VNSG 1505, 1423, 1331, 1327, 1122, 1226.

**VNSG 1261 CLINICAL III PRACTICE NURSE****16 clinical hours a week for 10 weeks (2 Cr.)**

Clinical experience focusing on direct client care of adult and pediatric populations in selected acute-care facilities.

The student will be expected to apply the concepts and skills of the licensed vocational nurse and demonstrate LVN-level legal and ethical behavior, safety practices, interpersonal and teamwork skills, and utilize appropriate communication with clients, families, staff and peers.

Prerequisites: VNSG 1133, 1429, 1334, 2431, 1230, 1460. Corequisites: VNSG 1432, 1136, 1238, 1219, 1191.

**VNSG 1327 ESSENTIALS OF MEDICATION ADMIN.****2 lec/4 lab (3 Cr.)**

This course focuses on the general principles of medication administration including determination of dosage, preparation, safe administration, and documentation of

multiple forms of drugs. Instruction includes various systems of measurement. Corequisites: VNSG 1505, 1423, 1331, 1122, 1226, 1260.

**VNSG 1330 MATERNAL-NEONATAL NURSING  
3 lec (3 Cr.)**

This course focuses on utilization of the nursing process in the assessment and management of the childbearing family. Emphasis is placed on the bio-psycho-socio-cultural needs of the family during the phases of pregnancy, childbirth, and the neonatal period including abnormal conditions. Prerequisites: VNSG 1505, 1423, 1331, 1327, 1122, 1226, 1260. Corequisites: VNSG 1133, 1429, 1334, 2431, 1460.

**VNSG 1331 PHARMACOLOGY****3 lec (3 Cr.)**

This course focuses on the fundamentals of medications and their diagnostic, therapeutic, and curative effects. It includes nursing interventions utilizing the nursing process. Corequisites: VNSG 1505, 1423, 1327, 1122, 1226, 1260.

**VNSG 1334 PEDIATRICS****3 lec (3 Cr.)**

This course is a study of childhood diseases and child-care from infancy through adolescence. Focus is placed on the care of the well and the ill child utilizing the nursing process. Prerequisites: VNSG 1505, 1423, 1331, 1327, 1122, 1226, 1260. Corequisites: VNSG 1133, 1429, 2431, 1230, 1460.

**VNSG 1423 BASIC NURSING SKILLS****2 lec/6 lab (4 Cr.)**

This course focuses on mastery of entry-level nursing skills and competencies for a variety of health care settings. Includes utilization of the nursing process as the foundation for all nursing interventions. Corequisites: VNSG 1505, 1331, 1327, 1122, 1226, 1260.

**VNSG 1429 MEDICAL-SURGICAL NURSING I****4 lec/1 lab (4 Cr.)**

This course focuses on the application of the nursing process to the care of adult patients experiencing medical-surgical conditions in the health-illness continuum. A variety of health care settings are utilized.

Prerequisites: VNSG 1505, 1423, 1331, 1327, 1122, 1226, 1260. Corequisites: VNSG 1133, 1334, 2431, 1230, 1460.

**VNSG 1432 MEDICAL-SURGICAL NURSING II****4 lec/1 lab (4 Cr.) (12-week summer course)**

This course is a continuation of Medical-Surgical Nursing I with application of the nursing process to the care of adult patients experiencing medical-surgical conditions in the health-illness continuum. It includes a

variety of health care settings. Prerequisites: VNSG 1133, 1429, 1334, 2431, 1230, 1460. Corequisites: VNSG 1136, 1238, 1219, 1191, 1261.

**VNSG 1460 CLINICAL II PRACTICAL NURSE  
16 clinical hours per week (4 Cr.)**

Clinical experience involving the provision of nursing care to diverse clients/families in selected acute care facilities, as well as care of the woman and family throughout the maternity cycle in selected clinical facilities. The student will be expected to apply related theory, concepts, and skills, demonstrate legal and ethical behavior, safety practices, interpersonal and teamwork skills, and utilize appropriate communication with clients, families, staff, and peers. Prerequisites: VNSG 1505, 1323, 1331, 1327, 1122, 1226, 1260. Corequisites: VNSG 1133, 1429, 1334, 2431, 1230.

**VNSG 1505 HEALTH SCIENCE  
5 lec/1 lab (5 Cr.)**

Introduction to the general principles of anatomy and physiology, nutrition, and microbiology that are necessary for understanding body processes and basic principles underlying health promotion and therapeutic interventions. Corequisites: VNSG 1423, 1331, 1327, 1122, 1226, and 1260.

**VNSG 2431 ADVANCED NURSING SKILLS  
2 lec/6 lab (4 Cr.)**

This course focuses on mastery of advanced-level nursing skills and competencies in a variety of health care settings utilizing the nursing process as a problem-solving tool. Prerequisites: VNSG 1505, 1423, 1331, 1327, 1122, 1226, 1260. Corequisites: VNSG 1133, 1429, 1334, 1230, 1460.

## **OCCUPATIONAL THERAPY ASSISTANT (HPRS, OTHA)**

*All OTHA courses require admission to the OTA Program. Studies in Health Professions and Related Services (HPRS courses) are open for registration for all Navarro College students.*

**HPRS 1102 WELLNESS & HEALTH PROMOTION  
0 lec/2 lab (1 Cr.)**

An overview of wellness theory and its application throughout the lifespan. Focus is on attitude development, impact of cultural beliefs, and communication of wellness. Through this study, the student will define wellness and health promotion, explain personal, social, cultural, nutritional, and environmental components of wellness, correlate concepts of wellness and healthy lifestyle, and develop health promotion strategies.

**HPRS 1161 & HPRS 1162 CLINICAL FOR  
HEALTH SERVICES OR ALLIED HEALTH SERVICES  
0 lec/4 lab (1 Cr.)**

A health-related, work-based learning experience that helps enable the student to apply under direct supervi-

sion, the occupational theory, skills and concepts.

**HPRS 1205 MEDICAL LAW/ETHICS FOR  
HEALTH CARE PROFESSIONALS  
1 lec/3 lab (2 Cr.)**

Introduction to the relationship between legal aspects and ethics in health care with emphasis on the responsibilities of health care professionals.

**HPRS 1206 ESSENTIALS OF MEDICAL TERMINOLOGY  
1 lec/2 lab (2 Cr.)**

A study of common medical terminology, word origin, structure and application. Focus is on the ability to use medical references as resource tools.

**HPRS 2301 PATHOPHYSIOLOGY  
2 lec/2 lab (3 Cr.)**

Study of the pathology and general health management of disease and injuries across the lifespan. Topics include etiology, symptoms, and the physical and psychological reactions to diseases and injuries.

**HPRS 2321 MEDICAL LAW/ETHICS FOR  
HEALTH CARE PROFESSIONALS  
3 lec (3 Cr.)**

Introduction to the relationship between legal aspects and ethics in health care with emphasis on the responsibilities of health care professionals.

**OTHA 1161, 1162 and 1163 CLINICAL FOR  
OCCUPATIONAL THERAPY ASSISTANT  
0 lec/6 lab (1 Cr.)**

Provides an opportunity for the student to apply specialized theory, skills, and concepts in OT practice areas. Emphasis is on the development of therapeutic self, written and oral communication, and professional behaviors. Prerequisite: OTHA 1405, OTHA 2204; approval of OTA program director.

**OTHA 1309 HUMAN STRUCTURE AND FUNCTION  
IN OCCUPATIONAL THERAPY  
2 lec/4 lab (3 Cr.)**

Study of the biomechanics of human motion. Emphasis on the musculoskeletal system including skeletal structure, muscles and nerves and biomechanical assessment procedures. Prerequisites: Approved biology elective; OTHA 1405; OTHA 2204.

**OTHA 1311 OCCUPATIONAL PERFORMANCE  
THROUGHOUT THE LIFESPAN  
2 lec/3 lab (3 Cr.)**

General principles of occupational performance throughout the lifespan. Learn to identify and adapt age appropriate occupations, identify the client factors that affect occupational performance, and select appropriate intervention strategies for this population. Prerequisites:

OTHA 1405; OTHA 2204.

**OTHA 1315 THERAPEUTIC USE OF OCCUPATIONS OR ACTIVITIES I**

**2 lec/4 lab (3 Cr.)**

Various occupations or activities used as therapeutic interventions in occupational therapy are studied. Emphasis on awareness of activity demands, contexts, adapting, grading, and safe implementation of occupations or activities.

Prerequisites: OTHA 1405; OTHA 2204.

**OTHA 1319 THERAPEUTIC INTERVENTIONS I**  
**2 lec/4 lab (3 Cr.)**

Instruction in concepts, techniques, and assessments leading to proficiency in skills and activities used in occupational therapy. Emphasis on the occupational therapy assistant's role in the OT process. Prerequisites: OTHA 1309; OTHA 1311; OTHA 1315.

**OTHA 1341 OCCUPATION PERFORMANCE BIRTH TO ADOLESCENCE**

**2 lec/4 lab (3 Cr.)**

Occupational performance of newborns through adolescents. Includes frames of reference, assessment/evaluation tools and techniques, and intervention strategies specific to this population. Identify and differentiate developmental milestones, identify and adapt age-appropriate occupations, and identify the client factors that can affect occupational performance. Demonstrate skills in the evaluation process, select appropriate intervention strategies for this population, and demonstrate effective documentation skills. Prerequisites: OTHA 1405; OTHA 2301; OTHA 2209; OTHA 1319

**OTHA 1405 PRINCIPLES OF OCCUPATIONAL THERAPY**

**2 lec/4 lab (4 Cr.)**

Introduction to occupational therapy including the historical development and philosophy. Emphasis on the role of the occupational therapy assistant. Topics include occupation in daily life, individualization of therapeutic intervention, frames of reference, OT education, roles and function, current health management environment including occupational therapy practice areas and moral, legal and ethical issues, and communication in OT including medical terminology and service documentation. Corequisite: Approved biology elective.

Prerequisite: admission into the OTHA program.

**OTHA 2204 NEUROLOGY IN OCCUPATIONAL THERAPY**

**1 lec/4 lab (2 Cr.)**

Study of neuroanatomy and neurophysiology as it relates to neurological conditions commonly treated in occupational therapy. Emphasis on neuro-based occupational therapy intervention techniques. Corequisite: approved

biology elective. Prerequisite: admission into the OTA program.

**OTHA 2209 MENTAL HEALTH IN OCCUPATIONAL THERAPY**

**1 lec/4 lab (2 Cr.)**

The study of the promotion of mental health through occupational therapy. Emphasis on mental theories, assessment and ethical intervention strategies to enhance psychosocial function, communication with patient/client, group processes and group dynamics, document patient/client responses to intervention, identify and explain psychiatric diagnoses based on the diagnostic and statistical manual, conduct patient/client education, and demonstrate awareness of community resources.

Prerequisites: OTHA 1311; OTHA 1309.

**OTHA 2301 PATHOPHYSIOLOGY IN OCCUPATIONAL THERAPY**

**2 lec/3 lab (3 Cr.)**

Study of the pathology and general health management of disease and injuries across the lifespan encountered in occupational therapy treatment settings. Topics include etiology, symptoms, and physical and psychological reactions to disease and injuries. Emphasis is on the OT assessment, therapeutic intervention to promote physical, psychosocial, and cognitive function, patient/client education, and prevention, and environmental modification.

Prerequisites: OTHA 1311; OTHA 1309; OTHA 1315.

**OTHA 2335 HEALTH CARE MANAGEMENT IN OCCUPATIONAL THERAPY**

**2 lec/2 lab (3 Cr.)**

Explores the roles of the occupational therapy assistant in management of wellness and health care delivery systems. Emphasis on documentation and reimbursement, occupational therapy standards and ethics, health care team role delineation and management of resources including environment, personnel and budget.

Prerequisite: OTHA 1405

**OTHA 2366 AND 2367 PRACTICUM FOR THE OCCUPATIONAL THERAPY ASSISTANT**

**0 lec/21 lab (3 Cr.)**

A method of instruction providing detailed education, training and work-based experience and direct patient/client care at a clinical site. Student receives onsite instruction, and supervision by certified OT personnel. The student will apply the theory, concepts and skills involving specialized materials, equipment, procedures, regulations, laws, and interactions within and among political, economic, environmental, social, and legal systems associated with occupational therapy, demonstrate legal and ethical behavior, safety practices, and interpersonal language of occupational therapy. Prerequisite: Successful completion of all required courses and approval of OTA program director.

**OTHA 2402 THERAPEUTIC USE OF OCCUPATIONS II**  
**3 lec/3 lab (4 Cr.)**

Emphasis on advanced techniques and applications to specific occupational therapy practice areas. The student will plan, select and implement activities to help meet the needs of specific populations treated in occupational therapy and adapt activities for identified functional needs. Prerequisites: OTHA 2301; OTHA 2209; OTHA 1319.

## **OIL & GAS TECHNOLOGY (INMT, INTC, PTRT, RBTC)**

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**INMT 2345 INDUSTRIAL TROUBLESHOOTING**  
**2 lec/2 lab (3 Cr.)**

An advanced study of the techniques used in troubleshooting various types of industrial equipment to include mechanical, electrical, hydraulic, and pneumatic systems and their control devices. Emphasis will be placed on the use of schematics and diagrams in conjunction with proper troubleshooting procedures.

**INTC 1305 INSTRUMENTATION**  
**2 lec/2 lab (3 Cr.)**

A survey of the instrumentation field and the professional requirements of the instrumentation technician including an introduction to computer and calculator applications involved in basic electronic circuit analysis.

**PTRT 1301 OVERVIEW OF PETROLEUM INDUSTRY**  
**3 lec (3 Cr.)**

An overview of the entire petroleum industry. Purposes and proper procedures in a variety of different petroleum technologies: exploration, drilling, production, transportation, marketing, and refining.

**PTRT 1307 PRODUCTION METHODS**  
**2 lec/2 lab (3 Cr.)**

An introduction to the two different methods associated with petroleum production: natural flow and artificial lift. The student will also develop skills and competency in lease-lay-out and specific recovery methods, such as water flooding, chemical flooding, thermal processes and CO<sub>2</sub> injections.

**PTRT 1313 INDUSTRIAL SAFETY**  
**2 lec/2 lab (3 Cr.)**

An overview for petroleum and manufacturing workers of state/federal regulations and guidelines, which require industrial safety training. Topics include the 29 C.F.R. 1910, 1926 standards, such as confined space entry, emergency action, lock out/tag out, and other work-related subjects.

**PTRT 1317 NATURAL GAS PROCESSING**  
**2 lec/2 lab (3 Cr.)**

An overview of natural gas processing operations. Fundamentals of gas processing, the nature of heat and how it implements the process, gas plant processing equipment, and procedures from raw material to the refined product.

**PTRT 1321 OILFIELD HYDRAULICS**  
**2 lec/2 lab (3 Cr.)**

Presents hydraulics applicable to drilling, completion and production. Includes calculating and evaluating the characteristics of the flowing and static fluids in various tubular and annular systems.

**PTRT 1324 PETROLEUM INSTRUMENTATION**  
**2 lec/2 lab (3 Cr.)**

Surveys the instruments, measurements and control devices used within the major aspects of the petroleum industry. Basic terminology, functions and applications of the various instruments will be discussed.

**PTRT 1391 NATURAL GAS PROCESSING II**  
**2 lec/2 lab (3 Cr.)**

A course in accuracy, quality, and validation of gas and liquid measurement techniques for field and plant operating personnel. General principles of correct techniques of measurement and proper procedures to correct errors will be emphasized.

**PTRT 2280 COOPERATIVE EDUCATION - PETROLEUM TECHNOLOGY/TECHNICIAN**  
**1 lec/10 external (2 Cr.)**

Career-related activities encountered in the student's area of specialization offered through an individualized agreement among the college, employer and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component.

**PTRT 2323 NATURAL GAS PRODUCTION**  
**2 lec/2 lab (3 Cr.)**

An overview of the aspects of natural gas production including gas well testing, field handling of gas, well casing head gas, separation, metering, and dehydration equipment, and gas compression/transportation systems.

**PTRT 2432 ARTIFICIAL LIFT**  
**2 lec/4 lab (3 Cr.)**

Practical aspects of artificial lift in conventional production systems. Designed for students who have completed production methods PTRT 1307.

**RBTC 1459 PNEUMATICS**  
**2 lec/4 lab (4 Cr.)**

A study of principles of pneumatics including formulas, functions, and circuits with hands-on experience in these industrial automated systems.

## **ORIENTATION (ORIN)**

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### **ORIN 1100 EDUCATION & CAREER PLANNING 1 lec (1 NDCr.)**

Required of all full-time students as entering freshmen. Designed to help prepare students for success in college. Topics include improving study skills, budgeting time, educational and personal choices. Opportunities to appraise abilities, interests, personality traits, and develop plan for career development.

## **PARAMEDIC (EMSP)**

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### **EMSP 1161 CLINICAL-EMERGENCY MEDICAL TECHNOLOGY/TECHNICAL (1 Cr.)**

A health-related, work-based learning experience that helps enable the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional.

### **EMSP 1162 CLINICAL-EMERGENCY MEDICAL TECHNOLOGY/TECHNICAL (1 Cr.)**

A health-related, work-based learning experience that helps enable the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional.

### **EMSP 1260 CLINICAL-EMERGENCY MEDICAL TECHNOLOGY/TECHNICAL (2 Cr.)**

A health-related, work-based learning experience that helps enable the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional.

### **EMSP 1338 INTRODUCTION TO ADVANCED PRACTICE (3 Cr.)**

An exploration of the foundations necessary for mastery of the advanced topics of clinical practice out of the hospital.

### **EMSP 1355 TRAUMA MANAGEMENT 2 lec/2 lab (3 Cr.)**

A detailed study of the knowledge and skills necessary to reach competence in the assessment and management of patients with traumatic injuries. At the completion of this course, the student will be able to integrate the pathophysiological principles and assessment findings to formulate a field impression and implement the treatment plan for the trauma patient. Prerequisites: EMSP 1438, EMSP 1456, EMSP 2348, EMSP 2444. Corequisite: concurrent enrollment in EMSP 2434, EMSP 2330, EMSP 2338.

### **EMSP 1356 PATIENT ASSESSMENT AND AIRWAY MANAGEMENT (3 Cr.)**

A detailed study of the knowledge and skills required to per-

form patient assessment and airway management.

### **EMSP 1438 INTRODUCTION TO ADVANCED PRACTICE 3 lec/1 lab (4 Cr.)**

An exploration of the foundations necessary for mastery of the advanced topics of clinical practice out of the hospital. At the completion of this course, the student will understand the roles and responsibilities of a paramedic within the EMS system and apply the basic concepts of development, pathophysiology and pharmacology to assessment and management of emergency patients. They will also be able to properly administer medications; communicate effectively with patients; and understand the medical/legal and ethical issues relating to EMS practice as well as the issues impacting the well being of the paramedic. Corequisite: concurrent enrollment in EMSP 1456, EMSP 2348, EMSP 2444.

### **EMSP 1456 PATIENT ASSESSMENT AND AIRWAY MANAGEMENT 3 lec/1 lab (4 Cr.)**

A detailed study of the knowledge and skills required to reach competence in performing patient assessment and airway management. At the completion of this course, the student will be able to take a proper history and perform a comprehensive physical exam on any patient, develop a patient-care plan, communicate with others, and establish and/or maintain a patient airway, oxygenate, and ventilate a patient. Corequisite: concurrent enrollment in EMSP 1438, EMSP 2348, EMSP 2444.

### **EMSP 1456 PATIENT ASSESSMENT AND AIRWAY MANAGEMENT 3 lec/1 lab (4 Cr.)**

A detailed study of the knowledge and skills required to reach competence in performing patient assessment and airway management. At the completion of this course, the student will be able to take a proper history and perform a comprehensive physical exam on any patient, develop a patient-care plan, communicate with others, and establish and/or maintain a patient airway, oxygenate, and ventilate a patient. Corequisite: Concurrent Enrollment in EMSP 1438, EMSP 2348, EMSP 2444.

### **EMSP 2143 ASSESSMENT-BASED MANAGEMENT 1 lec/2 lab (1 Cr.)**

The capstone course of the EMSP program. Designed to provide for teaching and evaluating comprehensive, assessment-based patient care management. At the completion of this course, the student will be able to integrate pathophysiological principles and assessment findings to formulate a field impression and implement a treatment plan for patients with common complaints.

Prerequisites: EMSP 1438, EMSP 1456, EMSP 2348, EMSP 2444, EMSP 1355, EMSP 2434, EMSP 2330, EMSP 2338, EMSP 2268, EMSP 2269.

### **EMSP 2160 CLINICAL-EMERGENCY MEDICAL TECHNOLOGY/TECHNICAL (1 Cr.)**

A health-related, work-based learning experience that helps enable the student to apply specialized occupational theory, skills and concepts. Direct supervision is provided by the clinical professional.

**EMSP 2161 CLINICAL-EMERGENCY MEDICAL TECHNOLOGY/TECHNICAL (1 Cr.)**

A health-related work-based learning experience that helps enable the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional.

**EMSP 2162 CLINICAL-EMERGENCY MEDICAL TECHNOLOGY/TECHNICAL (1 Cr.)**

A health-related work-based learning experience that helps enable the student to apply specialized occupational theory, skills and concepts. Direct supervision is provided by the clinical professional.

**EMSP 2163 CLINICAL-EMERGENCY MEDICAL TECHNOLOGY/TECHNICAL (1 Cr.)**

A health-related, work-based learning experience that helps enable the student to apply specialized occupational theory, skills and concepts. Direct supervision is provided by the clinical professional.

**EMSP 2237 EMS SPECIAL PROCEDURES 0 lec/2 lab(2 Cr.)**

Instruction in a laboratory environment concentrating on development of practical, medical skills and critical thinking abilities. Students will master a variety of skills appropriate to their training level by a combination of practice, use mannequins, actors or other students, and stage scenarios. Required verification of specific skills may be included. As outlined in the course, students will master the use of various tools and medical procedures and their application to actual emergency patient-care situations. Students will demonstrate integration of theoretical knowledge mastered in other courses with these skills and procedures to provide a comprehensive problem-solving and patient-management system.

**EMSP 2268 PARAMEDIC PRACTICUM I 0 lec/0 lab 14 Ext (2 Cr.)**

Practical general training and experiences in the workplace. The college with the employer develop and document an individualized plan for the student. The plan relates the workplace training and experiences to the student's general and technical course of study. The guided external experiences may be paid or unpaid. This course may be repeated if topics and learning outcomes vary. As outlined in the learning plan, the student will master the theory, concepts, and skills involving the tools, materials, equipment, procedures, regulations, laws, and interactions within and among political, economic, environmental, and legal systems associated with the workplace, and will demonstrate ethical behavior, safety practices, interpersonal and teamwork skills, appropriate verbal and written communications in the workplace. Prerequisites:

EMSP 1438, EMSP 1456, EMSP 2348, EMSP 2444, EMSP 1355, EMSP 2434, EMSP 2330, EMSP 2338.

**EMSP 2269 PARAMEDIC PRACTICUM II 0 lec/0 lab 15 Ext (2 Cr.)**

Practical, general training and experiences in the workplace. The college with the employer develops and documents an individualized plan for the student. The plan relates the workplace training and experiences to the student's general and technical course of study. The guided external experiences may be paid or unpaid. This course may be repeated if topics and learning outcomes vary. As outlined in the learning plan, the student will master the theory, concepts, and skills involving the tools, materials, equipment, procedures, regulations, laws, and interactions within and among political, economic, environmental, and legal systems associated with the workplace, and will demonstrate ethical behavior, safety practices, interpersonal and teamwork skills, appropriate verbal and written communications in the workplace. Prerequisites: EMSP 1438, EMSP 1456, EMSP 2348, EMSP 2444, EMSP 1355, EMSP 2434, EMSP 2330, EMSP 2338.

**EMSP 2330 SPECIAL POPULATIONS 3 lec/0 lab (3 Cr.)**

A detailed study of the knowledge and skills necessary to reach competence in the assessment and management of ill or injured patients in nontraditional populations. At the completion of this course, the student will be able to integrate pathophysiological principles and assessment findings to formulate a field impression and implement a treatment plan for neonatal, pediatric, and geriatric patients, diverse patients, and chronically ill patients. Prerequisites: EMSP 1438, EMSP 1456, EMSP 2348, EMSP 2444. Corequisite: concurrent enrollment in EMSP 2338, EMSP 2434, EMSP 1355.

**EMSP 2338 EMS OPERATIONS 2 lec/2 lab (3 Cr.)**

A detailed study of the knowledge and skills necessary to reach competence to safely manage the scene of an emergency. At the completion of this course, the student will be able to safely manage medical incidents, rescue situations, hazardous materials and crime scenes. Prerequisites: EMSP 1438, EMSP 1456, EMSP 2348, EMSP 2444. Corequisite: concurrent enrollment in EMSP 2330, EMSP 2434, EMSP 1355.

**EMSP 2348 EMERGENCY PHARMACOLOGY 2 lec/1 lab (3 Cr.)**

A comprehensive course covering all aspects of the utilization of medications in treating emergency situations. The course is designed to compliment cardiology, special populations, and medical emergency courses. The student will display a command of general pharmacological terminology and general drug mechanisms, administration routes and procedures, and drug dose calculations. Students will demonstrate understanding of the pharmacodynamics, pharmacokinetics, indications, contraindications, possible side effects, and common drug interactions of a variety of medications used in out-of-hospital medical care. Corequisite: concurrent enrollment in EMSP 1456, EMSP 1456, EMSP 2444.

### **EMSP 2434 MEDICAL EMERGENCIES**

**3 lec/2 lab (4 Cr.)**

A detailed study of the knowledge and skills necessary to help reach competence in the assessment and management of patients with medical emergencies. At the completion of this course, the student will be able to integrate pathophysiological principles and assessment findings to formulate a field impression and implement a treatment plan for the medical patient. Prerequisites: EMSP 1438, EMSP 1456, EMSP 2348, EMSP 2444. Corequisite: concurrent enrollment in EMSP 2338, EMSP 2330, EMSP 1355.

### **EMSP 2444 CARDIOLOGY**

**3 lec/2 lab (4 Cr.)**

A detailed study of the knowledge and skills necessary to reach competence in the assessment and management of patients with cardiac emergencies. At the completion of this course, the student will be able to integrate pathophysiological principles and assessment findings to formulate a field impression, and implement a treatment plan for the cardiac patient. Corequisite: concurrent enrollment in EMSP 1456, EMSP 1456, EMSP 2348.

## **PATIENT CARE TECHNOLOGY (NURA, NUPC)**

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### **NURA 1401 NURSE AID FOR HEALTH CARE**

**3 lec/3 lab (4 Cr.)**

Preparation for entry-level nursing assistants to achieve a level of knowledge, skills, and abilities essential to provide basic care to residents of long-term care facilities. Topics include residents' rights, communication, safety, observation, reporting, and assisting residents in maintaining basic comfort and safety. Emphasis on effective interaction with members of the health care team.

### **NUPC 1260 CLINICAL**

**6 ext. (2 Cr.)**

Clinical experience in health care setting.

### **NUPC 1420 PATIENT CARE TECHNICIAN**

**3 lec/2 lab (4 Cr.)**

A course designed to help provide the student with the necessary training, skills, and knowledge needed to gain employment as a patient care technician in a hospital setting.

## **PHILOSOPHY (PHIL)**

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### **PHIL 1301 INTRODUCTION TO PHILOSOPHY**

**3 lec (3 Cr.)**

Introduction to critical and reflective thinking as applied to basic problems of existence and meaning of human life and institutions, study of methods and types of evidence utilized by authority, intuition, revelation, reason and scientific methods, and study of nature of philosophy including its relation to religion, science and art.

### **PHIL 1304 WORLD RELIGIONS**

**3 lec (3 Cr.)**

A comparative study of various world religions including the seven major world religions as well as the "primitive" religions. Students will consider the nature of religion itself and reflect on the significance of religious myth, symbolism, and ritual for human life, and human culture.

### **PHIL 1316 HISTORY OF RELIGION I**

**3 lec (3 Cr.)**

A historical survey of major religions including Judaism.

### **PHIL 1317 HISTORY OF RELIGION II**

**3 lec (3 Cr.)**

A historical survey of major religions including Christianity.

### **PHIL 2306 INTRODUCTION TO ETHICS**

**3 lec (3 Cr.)**

Classical and contemporary theories concerning the good life, human conduct in society, and moral and ethical standards.

## **PHYSICAL THERAPY ASSISTANT (PTHA)**

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### **PTHA 1321 CLINICAL PATHOPHYSIOLOGY**

**2 lec/2 lab**

Study of the pathogenesis, prognosis, and therapeutic management of diseases/conditions commonly encountered in physical therapy.

### **PTHA 1361 CLINICAL PTA I**

**15 ext. hrs. (3 Cr.)**

Clinical practice of PTA skills.

### **PTHA 1409 INTRODUCTION TO PHYSICAL THERAPY**

**2 lec/4 lab (4 Cr.)**

This course provides students with an introduction to the profession of physical therapy. Content will include the historical and current scope of physical therapy and lab procedures basic to patient handling and functional skills. Emphasizes selected data collection techniques.

### **PTHA 1413 FUNCTIONAL ANATOMY**

**3 lec/3 lab (4 Cr.)**

This course will cover the human anatomy and its application to the motion of the musculoskeletal system as it relates to normal activities and dysfunctions.

### **PTHA 1431 PHYSICAL AGENTS**

**3 lec/4 lab (4 Cr.)**

The course will cover biophysical principles and application of therapeutic physical agents with specific emphasis on indications, contraindications, medical efficacy, and physiological effects.

### **PTHA 2201 ASSESSMENT SKILLS**

**1 lec/4 lab**

Data collection techniques used to help prepare the physical therapist assistant to assist in physical therapy management.

**PTHA 2217 ISSUES IN HEALTH CARE****1 lec/2 lab**

Organizational patterns, administrative principles, and legal and ethical issues. Includes communications skills and licensure and employment acquisition skills.

**PTHA 2362 CLINICAL PTA II****16 ext. hrs. (3 Cr.)**

Clinical practice of PTA skills.

**PTHA 2363 CLINICAL PTA III****16 ext. hrs. (3 Cr.)**

Advanced clinical practice of PTA skills.

**PTHA 2409 THERAPEUTIC EXERCISE****2 lec/4 lab**

Concepts, principles, and application of techniques related to therapeutic exercise and functional training.

**PTHA 2431 MANAGEMENT OF NEUROLOGICAL DISORDERS****3 lec/4 lab (3 Cr.)**

This is an advanced course integrating previously learned and new skills/techniques into the comprehensive rehabilitation of selected neurological disorders.

**PTHA 2435 REHABILITATION TECHNIQUES****3 lec/4 lab**

Advanced course integrating previously learned and new skills/techniques into the comprehensive rehabilitation of selected long-term pathologies.

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**PHYSICS (PHYS)**

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**PHYS 1305 ELEMENTARY PHYSICS****3 lec (3 Cr.)**

Conceptual level survey of topics intended for liberal arts and other non-science majors. May or may not include a laboratory.

**PHYS 1401 COLLEGE PHYSICS I****3 lec/3 lab (4 Cr.)**

An algebra/trigonometry-level approach toward physics for students preparing for medical, dental or other science-related fields. Topics include the study of basic mechanics, Newton's laws of motion and gravity, conservation, laws of energy and momentum, rotational motion, thermal properties of matter, heat transfer, wave motion, and acoustical phenomena.

Prerequisite: MATH 1314.

**PHYS 1402 COLLEGE PHYSICS II****3 lec/3 lab (4 Cr.)**

Continuation of PHYS 1401. Topics include the study of the fundamentals of electricity and magnetism for both static and moving charge, the use of Gauss's and Ampere's laws, DC and AC circuits, electromagnetic fields and waves, the propagation of light, reflection and refraction, lenses and mirrors, and an introduction to modern physics. Prerequisite: PHYS 1401.

**PHYS 1411 INTRO TO ASTRONOMY I****3 lec/3 lab (4 Cr.)**

This course, designed for non-science majors, will explore our solar system, the motions of the planets in the sky, constellations, and the history of astronomy.

**PHYS 1412 INTRO TO ASTRONOMY II****3 lec/3 lab (4 Cr.)**

This course, designed for non-science majors, will explore our Milky Way galaxy, stars and stellar systems, galaxies, cosmology and the tools used to study astronomy.

**PHYS 1415 PHYSICAL SCIENCE I****3 lec/3 lab (4 Cr.)**

This course, designed for non-science majors, is a survey of topics in physics and astronomy including their relationship to the environment.

**PHYS 1417 PHYSICAL SCIENCE II****3 lec/3 lab (4 Cr.)**

This course, designed for non-science majors, is a survey of topics in meteorology, geology, and chemistry and their relationships within the environment.

**PHYS 2425 UNIVERSITY PHYSICS I****3 lec/3 lab (4 Cr.)**

A calculus-level approach toward physics for students majoring in physics, math, engineering, or chemistry. An emphasis is placed on physical concepts as well as mathematical treatment of subject areas covered. Topics include the study of basic mechanics, Newton's laws of motion and gravity, conservation laws of energy and momentum, rotational motion, thermal properties of matter, heat transfer, wave motion, and acoustical phenomena. Corequisite: MATH 2413.

**PHYS 2426 UNIVERSITY PHYSICS II****3 lec/3 lab (4 Cr.)**

Continuation of PHYS 2425. Topics include the study of the fundamentals of electricity and magnetism for both static and moving charges, the use of Gauss's and Ampere's laws, DC and AC circuits, electromagnetic fields and waves, the propagation of light, reflection and refraction, lenses and mirrors, and an introduction of modern physics. Prerequisite: PHYS 2425.

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**PSYCHOLOGY (PSYC)**

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**PSYC 2301 GENERAL PSYCHOLOGY****3 lec (3Cr.)**

A survey of the major topics in psychology. Introduces the study of behavior and the factors that determine and affect behavior.

**PSYC 2302 APPLIED PSYCHOLOGY****3 lec (3Cr.)**

Survey of the applications of psychological knowledge and methods in such fields as business, industry, education, medicine, law enforcement, social work, and government work.

**PSYC 2306 HUMAN SEXUALITY**

**3 lec (3 Cr.)**

A study of sexual roles and identity of today's individual from the psychological perspective. Emphasis is placed on gender identity and stereotyping, individual expectations and the influences upon the individual, and the source and prevention of sexually transmitted diseases.

**PSYC 2314 LIFESPAN GROWTH AND DEVELOPMENT****3 lec (3 Cr.)**

A study of physical, cognitive, personality and interpersonal development of a person from conception to the end of the life cycle with emphasis on the developmental principles and tasks.

**PSYC 2315 PSYCHOLOGY OF ADJUSTMENT****3 lec (3 Cr.)**

Study of processes involved in growth and adjustment of individuals to their personal and sociocultural environments. Includes application of theory to help students acquire skills of communication, interpersonal relationships, decision-making, self-management, and critical thinking.

**PSYC 2319 SOCIAL PSYCHOLOGY****3 lec (3 Cr.)**

The origin and development of personal behavior in interpersonal situations. Topics include small group behavior, interpersonal attraction, prosocial behavior, socialization and personality, aggression and conflict, attitude acquisition and change, leadership, and social communication.

Recommended prerequisite: PSYC 2301.

**PSYC 2389 ACADEMIC COOPERATIVE IN****PSYCHOLOGY****3 lec (3 Cr.)**

An instructional program designed to integrate on-campus college study with practical, hands-on experience in the social sciences. In conjunction with class seminars, the individual student will set specific goals and objectives in the study of human social behavior and social institutions. This course is designed for the sophomore student who is interested in pursuing a major in psychology. The student must be recommended for the course by a college adviser, instructor, or administrator and must have the instructor's approval before enrolling in the course.

**SOCIOLOGY (SOCI)****SOCI 1301 INTRODUCTION TO SOCIOLOGY****3 lec (3 Cr.)**

Introductory study of factors and principles influencing social life of man. Includes social organization culture, socialization, group life, social institutions, population, human ecology, and social changes.

**SOCI 1306 SOCIAL PROBLEMS****3 lec (3 Cr.)**

Application of sociological principles to the major problems of contemporary society such as inequality, crime and violence, substance abuse, deviance, or family problems.

Recommended prerequisite: SOCI 1301.

**SOCI 2301 MARRIAGE & FAMILY RELATIONS****3 lec (3 Cr.)**

A sociological examination of marriage and family life. Topics include developing intimate relationships, problems and issues confronting the institution of marriage, divorce and remarriage, sound money management, parenting, and changes in family life.

**SOCI 2319 MINORITY STUDIES****3 lec (3 Cr.)**

Principal minority groups in American society and their sociological significance, problems of intergroup relations, social movements, and related social changes occurring on contemporary scene. Recommended prerequisite: SOCI 1301.

**SOCI 2389 ACADEMIC COOPERATIVE IN****SOCIOLOGY****3 lec (3 Cr.)**

An instructional program designed to integrate on-campus college study with practical, hands-on experience in the social sciences. In conjunction with class seminars, the individual student will set specific goals and objectives in the study of human social behavior and social institutions. The student will specifically study the social institution of education. This course is designed for the sophomore student who is interested in pursuing a major in sociology or education. The student must be recommended for the course by a college adviser, instructor, or administrator and must have the instructor's approval before enrolling in the course.

**SPEECH (SPCH)****SPCH 1311 INTRODUCTION TO SPEECH COMMUNICATION****3 lec (3 Cr.)**

This course functions as an introduction to theory and practice of speech communication in interpersonal, small group, and public communication situations. Emphasis is placed on increasing self-awareness, improvement of interpersonal communication skills, and preparation and delivery of effective public presentations.

**SPCH 1315 PUBLIC SPEAKING****3 lec (3 Cr.)**

An introductory course in research, composition, organization, delivery, and analysis of informative and persuasive speeches for various purposes and occasions. Emphasis is placed on developing students' abilities in presentation of ideas.

**SPCH 1321 BUSINESS & PROFESSIONAL SPEAKING****3 lec (3 Cr.)**

Theories and practice of speech communication as applied to business and professional situations. Emphasis is on interpersonal principals, leadership strategies, and other communication skills necessary for such types of communications as interviewing, team building, and speech presentation.

## **WELDING (WLDG)**

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### **WLDG 1200 INTRODUCTION TO WELDING FUNDAMENTALS**

**1 lec/3 lab (2 Cr.)**

An introduction to the fundamentals of equipment used in oxyacetylene and arc welding including welding and cutting safety, basic oxyacetylene welding and cutting, basic arc welding processes, and basic metallurgy.

### **WLDG 1221 STUDIES IN WELDER/WELDING TECHNOLOGY WELDING (SMAW)**

**1 lec/3 lab (2 Cr.)**

A continuation of the introductory layout and fabrication course, which covers design and production of various fillets and groove welds. Preparation of specimens for testing in all test positions.