

# COURSE DESCRIPTIONS

The following pages contain the descriptions of transfer and Career and Technical Education (CATE) courses offered by Vernon College. The courses are listed in alphabetical order by prefix.

The first digit of the course number indicates whether the course is usually taken during the first or second year. The second digit refers to the value of each course in credit hours. The third and fourth digits refer to a sequence within the subject field. After the title of a course, lecture and lab hours are noted. At the end of the course description, any required prerequisites and lab/special fees are listed.

In order to offer a wide spectrum of courses to meet individual interests and needs, certain courses in specialized fields may be offered in alternate years or only at a specific VC location. The student should take this into consideration when developing a long-range program. The printed schedules of classes list the specific offering of courses for each VC location each semester.

Vernon College is a member of the Texas Common Course Numbering System (TCCNS), which is a cooperative effort among Texas community colleges and universities to facilitate the transfer of freshman-level and sophomore-level general academic course work. The TCCNS provides a shared, uniform set of course designations for students and their advisors to use in determining both course equivalency and degree applicability of transfer credit on a statewide basis.

## **ACCT 2401 PRINCIPLES OF ACCOUNTING I - FINANCIAL (3-2).....TRANSFER**

Accounting concepts and their application in transaction analysis and financial statement preparation; analysis of financial statements; and asset and equity accounting in proprietorships, partnerships, and corporations. Introduction to cost behavior, budgeting, responsibility accounting, cost control, and product costing. Lab Fee: \$24.00; Special Fee: \$12.00

## **ACCT 2402 PRINCIPLES OF ACCOUNTING II - MANAGERIAL (3-2).....TRANSFER**

A continuation of Accounting 2401. Accounting concepts and their application in transaction analysis and financial statement preparation; analysis of financial statements; and asset and equity accounting in proprietorships, partnerships, and corporations. Introduction to cost behavior, budgeting, responsibility accounting, cost control, and product costing. Prerequisite: ACCT 2401. Lab Fee: \$24.00; Special Fee: \$12.00

## **ACNT 1303 INTRODUCTION TO ACCOUNTING I (2-2).....WORKFORCE**

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 reconciliation, and payroll. (May count either ACNT 1303 or ACNT 1425 in an A.A.S. degree, but may not use both courses to satisfy the accounting requirement in the degree. Successful completion of both ACNT 1303 and ACNT 1304 may be substituted for ACNT 1425.) Lab Fee: \$16.00; Special Fee: \$12.00

## **ACNT 1304 INTRODUCTION TO ACCOUNTING II (2-2).....WORKFORCE**

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. (May count either ACNT 1304 or ACNT 1425 in an A.A.S. degree, but may not use both courses to satisfy the accounting requirement in the degree. Successful completion of ACNT 1303 and ACNT 1304 may be substituted for ACNT 1425.) Prerequisite: ACNT 1303. Lab Fee: \$16.00; Special Fee: \$12.00

## **ACNT 1425 PRINCIPLES OF ACCOUNTING I (3-2).....WORKFORCE**

A study of accounting concepts and their application in transaction analysis and financial statement preparation and asset and equity accounting in proprietorships and corporations. Emphasis on accounting cycle for service and merchandising enterprises. (ACNT 1303 and ACNT 1304 may be substituted for ACNT 1425.) Lab Fee: \$24.00; Special Fee: \$12.00

## **ACNT 1426 PRINCIPLES OF ACCOUNTING II (3-2).....WORKFORCE**

A study of the fundamentals of managerial accounting. Emphasis on budgeting, planning, management decision making, and analysis of financial reports. (ACNT 1303 and ACNT 1304 may not be substituted for ACNT 1426.) Prerequisite: ACNT 1425. Lab Fee: \$24.00; Special Fee: \$12.00

- ACRW 0302 INTEGRATED READING/WRITING (IRW).....**  
**DEVELOPMENTAL**  
 Integration of critical reading and academic writing skills. The course fulfills TSI requirements for reading and/or writing. Prerequisites: See counselor for scores required for this course. Special Fee: \$17.00
- AGAH 1453 BEEF CATTLE PRODUCTION (3-3).....WORKFORCE**  
 An overview of the beef cattle industry. Topics include the organization and operation of beef cattle enterprises, selection breeding, reproduction, health, nutrition, management, and marketing. Lab Fee: \$24.00; Special Fee: \$17.00
- AGCR 1407 RANGE MANAGEMENT (3-2).....WORKFORCE**  
*(Formerly AGCR 1307)* Study of the practical problems of managing native pastures and range lands. Topics include range land ecology, stocking rates, rotation systems, toxic plants, range reseeding, brush control, and ecological and physiological responses of range vegetation to grazing. Lab Fee: \$24.00; Special Fee: \$2.00
- AGEQ 1219 HORSEMANSHIP I (0-4).....WORKFORCE**  
 Instruction in basic horsemanship skills including handling, saddling, bridling, mounting, riding, grooming, safety, and basic health care. Student must furnish a horse. Lab Fee: \$24.00; Special Fee: \$2.00
- AGEQ 1315 HORSE EVALUATION I (2-2).....WORKFORCE**  
 Instruction in evaluation and selection of horses based on breed/performance criteria. Topics include basic anatomy and its relation to function, breed type and characteristics, and standard performance classes. Lab Fee: \$24.00; Special Fee: \$27.00
- AGEQ 1411 EQUINE SCIENCE I (3-2).....WORKFORCE**  
 An introduction to the horse industry. Topics include breeds and breeding, selection, and management practices. Lab Fee: \$24.00; Special Fee: \$2.00
- AGEQ 2239 HORSEMANSHIP II (0-4).....WORKFORCE**  
 Instruction in advanced horsemanship skills including cues, lead changes, head-set, side-pass, and pivots. Student must furnish a horse. Lab Fee: \$24.00; Special Fee: \$2.00
- AGEQ 2315 HORSE EVALUATION II (2-2).....WORKFORCE**  
 Study of advanced concepts on evaluation and selection of horses. Prerequisite: AGEQ 1315. Lab Fee: \$24.00; Special Fee: \$52.00
- AGME 1315 FARM & RANCH SKILLS I (2-2) ..... WORKFORCE**  
 Study and application of shop skills used in agricultural processes including arc welding, oxyacetylene cutting and welding, drawing and planning projects, tool maintenance, metal working, woodworking, plumbing and concrete. Special Fee: \$2.00
- AGMG 1311 INTRODUCTION TO AGRIBUSINESS (3-0).....WORKFORCE**  
 Introduction to agribusiness management, marketing, and sales in the free enterprise system. Topics include economic principles, finance, risk management, record keeping, budgeting, employee/employer responsibilities, communications, human relation skills, and agricultural career opportunities. Special Fee: \$2.00
- AGMG 1364, 2364, 2365 PRACTICUM (OR FIELD EXPERIENCE) - FARM/FARM AND RANCH  
 MANAGEMENT (0-24).....WORKFORCE**  
 Practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student. Prerequisites: Eight semester hours of major requirements and consent of instructor. Special Fee: \$2.00
- AGRI 1131 THE AGRICULTURAL INDUSTRY (1-0).....TRANSFER**  
 Overview of world agriculture, nature of the industry, resource conservation, and the American agricultural system, including production, distribution, and marketing. Special Fee: \$2.00
- AGRI 1325 MARKETING OF AGRICULTURAL PRODUCTS (3-0).....TRANSFER**  
 Operations in the movement of agricultural commodities from producer to consumer, including the essential marketing functions of buying, selling, transporting, storing, financing, standardizing, pricing, and risk bearing. Special Fee: \$2.00
- AGRI 1407 AGRONOMY (3-2).....TRANSFER**  
 Principles and practices in the development, production, and management of field crops including plant breeding, plant diseases, soils, insect control, and weed control. Lab Fee: \$24.00; Special Fee: \$2.00
- AGRI 1419 INTRODUCTORY ANIMAL SCIENCE (3-2).....TRANSFER**  
 Scientific animal agriculture. Importance of livestock and meat industries. Selection, reproduction, nutrition, management, and marketing of beef cattle, swine, sheep, goats, and horses. Lab Fee: \$24.00; Special Fee: \$2.00

- AGRI 2317 INTRODUCTION TO AGRICULTURAL ECONOMICS (3-0).....TRANSFER**  
 Fundamental economic principles and their applications to the problems of the industry of agriculture. Special Fee: \$2.00
- AGRI 2321 LIVESTOCK EVALUATION I (2-2).....TRANSFER**  
 Selection, evaluation, and classification of livestock and livestock products. Lab Fee: \$24.00; Special Fee: \$2.00
- AGRI 2330 WILDLIFE CONSERVATION & MANAGEMENT (3-0).....TRANSFER**  
 Principles and practices used in the production and improvement of wildlife resources. Aesthetic, ecological, and recreational uses of public and private lands. Special Fee: \$2.00
- ARTS 1301 ART APPRECIATION (3-0).....TRANSFER**  
 Exploration of purposes and processes in the visual arts including evaluation of selected works. Special Fee: \$2.00
- AUMT 1267 PRACTICUM (OR FIELD EXPERIENCE) - AUTOMOBILE/AUTOMOTIVE MECHANICS TECHNOLOGY/TECHNICIAN (0-14).....WORKFORCE**  
 Practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student. Prerequisites: Eight semester hours of major requirements and consent of instructor. Special Fee: \$2.00
- AUMT 1407 AUTOMOTIVE ELECTRICAL SYSTEMS (3-3).....WORKFORCE**  
 An overview of automotive electrical systems including topics in operational theory, testing, diagnosis, and repair of charging and starting systems, and electrical accessories. Emphasis on electrical schematic diagrams and service manuals. May be taught manufacturer specific. Lab Fee: \$24.00; Special Fee: \$52.00
- AUMT 1410 AUTOMOTIVE BRAKE SYSTEMS (3-3).....WORKFORCE**  
 Operation and repair of drum/disc type brake systems. Topics include brake theory, diagnosis, and repair of power, manual, anti-lock brake systems, and parking brakes. May be taught with manufacturer specific instructions. Lab Fee: \$24.00; Special Fee: \$52.00
- AUMT 1416 AUTOMOTIVE SUSPENSION AND STEERING (3-3).....WORKFORCE**  
 Diagnosis and repair of automotive suspension and steering systems including electronically controlled systems. Includes component repair, alignment procedures and tire and wheel service. May be taught manufacturer specific. Lab Fee \$24.00; Special Fee: \$52.00
- AUMT 1419 AUTOMOTIVE ENGINE REPAIR (3-3).....WORKFORCE**  
 Fundamentals of engine operation, diagnosis and repair. Emphasis on identification, inspection, measurements, disassembly, repair, and reassembly of the engine. May be taught manufacturer specific. Lab Fee: \$24.00; Special Fee: \$52.00
- AUMT 1445 AUTOMOTIVE CLIMATE CONTROL SYSTEMS (3-3).....WORKFORCE**  
 Diagnosis and repair of manual/electronic climate control systems; includes the refrigeration cycle and EPA guidelines for refrigerant handling. May be taught manufacturer specific. Lab Fee: \$24.00; Special Fee: \$52.00
- AUMT 1472 HIGH PERFORMANCE MODIFICATION: THEORY AND EXECUTION (3-2).....WORKFORCE**  
 Evaluate a vehicle to determine its overall potential for increased performance, determine an attainable goal, set a course of action to reach the goal, and execute the modifications within set budget constraints. Through lecture and hands-on lab experiences, students will plan and implement modifications that will deliver increased performance and be legal for use on public streets. Students will also be provided the ability to demonstrate and test modification through controlled environment testing (Dynamometer, Drag strip). Prerequisite: AUMT 2417. Lab Fee: \$24.00; Special Fee: \$77.00.
- AUMT 2310 AUTOMOTIVE SERVICE CONSULTANT (3-0).....WORKFORCE**  
 Automotive service consulting skills and procedures. Includes vehicle identification, product knowledge, shop operations, warranty service contracts, communications, customer relations, internal relations, and sales skills. Emphasizes customer satisfaction through courtesy, professionalism, and communications. Special Fee: \$2.00
- AUMT 2417 AUTOMOTIVE ENGINE PERFORMANCE ANALYSIS I (3-3).....WORKFORCE**  
 Theory, operation, diagnosis of drivability concerns, and repair ignition, and fuel delivery systems. Use of current engine performance diagnostic equipment. May be taught with manufacturer specific instructions. Prerequisite: AUMT 1407. Lab Fee: \$24.00; Special Fee: \$52.00

- BCIS 1305 BUSINESS COMPUTER APPLICATIONS (2-2).....TRANSFER**  
 Computer terminology, hardware, software, operating systems, and information systems relating to the business environment. The main focus of this course is on business applications software, including word processing, spreadsheets, databases, presentation graphics, and business-oriented utilization of the Internet. *(This course is part of the Business Field of Study Curriculum)* Prerequisite: Consent of instructor. Lab Fee: \$24.00; Special Fee: \$17.00
- BIOL 1322 NUTRITION & DIET THERAPY I (3-0).....TRANSFER**  
 Study of the chemical, physical, and sensory properties of food; nutritional quality; and food use and diet applications. Prerequisite: Texas Success Initiative complete in reading. Special Fee: \$2.00
- BIOL 1406 BIOLOGY FOR SCIENCE MAJORS I (3-3).....TRANSFER**  
 Fundamental principles of living organisms will be studied, including physical and chemical properties of life, organization, function, evolutionary adaptation, and classification. Concepts of cytology, reproduction, genetics, and scientific reasoning are included. Prerequisite: Texas Success Initiative complete in reading and writing. Lab Fee: \$24.00; Special Fee: \$12.00
- BIOL 1407 BIOLOGY FOR SCIENCE MAJORS II (3-3).....TRANSFER**  
 The diversity and classification of life will be studied, including animals, plants, protists, fungi, and prokaryotes. Special emphasis will be given to anatomy, physiology, ecology, and evolution of plants and animals. Special emphasis will be given to anatomy, physiology, ecology, and evolution of plants and animals. Prerequisite: Texas Success Initiative complete in reading and writing. Lab Fee: \$24.00; Special Fee: \$12.00
- BIOL 1416 LIFE/EARTH SCIENCE (3-3).....TRANSFER**  
 An integrated survey of life and earth science, ecology, and the scientific method. Credible only for students seeking grades EC-6 and 4-8 education certification; this course will not be counted toward the 8 hours of required science courses within the A.A., A.S., or the core curriculum. Prerequisite: Texas Success Initiative complete in reading and writing. Lab Fee: \$24.00; Special Fee: \$12.00
- BIOL 2401 ANATOMY & PHYSIOLOGY I (3-3).....TRANSFER**  
 Study of cells, tissues, and the structure and function of human anatomy, including the integumentary, musculoskeletal, and digestive systems. Systems to include basic nutrition and metabolism Prerequisite: Texas Success Initiative complete in reading and writing. Highly recommended: BIOL 1406 and/or CHEM 1406. Lab Fee: \$24.00; Special Fee: \$12.00
- BIOL 2402 ANATOMY & PHYSIOLOGY II (3-3).....TRANSFER**  
 Study of the structure and function of human anatomy, including the neuroendocrine, urinary, reproductive, pregnancy, heredity, lymphatic, immune, respiratory, and circulatory systems. Prerequisites: Texas Success Initiative complete in reading and writing; and BIOL 2401 with a grade of "C" or better. Lab Fee: \$24.00; Special Fee: \$12.00
- BIOL 2406 ENVIRONMENTAL BIOLOGY (3-3).....TRANSFER**  
 Principles of environmental systems and ecology, including biogeochemical cycles, energy transformations, abiotic interactions, symbiotic relationships, natural resources and their management, lifestyle analysis, evolutionary trends, hazards and risks, and approaches to ecological research. Prerequisite: Texas Success Initiative complete in reading and writing. Lab Fee: \$24.00; Special Fee: \$2.00
- BIOL 2420 MICROBIOLOGY FOR NON-SCIENCE MAJORS (3-3).....TRANSFER**  
 Study of the morphology, physiology and taxonomy of representative groups of pathogenic and nonpathogenic microorganisms. Pure cultures of microorganisms grown on selected media are used in learning laboratory techniques. Includes a brief preview of food microbes, public health, and immunology. Prerequisites: Texas Success Initiative complete in reading, writing, and math; BIOL 1406 or BIOL 2401 or concurrent enrollment. Highly recommended: CHEM 1406. Lab Fee: \$24.00; Special Fee: \$12.00
- BMGT 1327 PRINCIPLES OF MANAGEMENT (3-0).....WORKFORCE**  
*(Formerly BMGT 1303)* Concepts, terminology, principles, theories, and issues in the field of management. Special Fee: \$2.00
- BMGT 2303 PROBLEM SOLVING AND DECISION MAKING (3-0).....WORKFORCE**  
 Decision making and problem solving processes in organizations utilizing logical and creative problem solving techniques. Application of theory is provided by experiential activities such as small group discussions, case studies, and the use of other managerial decision aids. Prerequisite: Capstone course, to be taken in the student's last semester prior to graduation. Special Fee: \$2.00

- BUSG 1366, 2366, 2367 PRACTICUM (OR FIELD EXPERIENCE) - BUSINESS/COMMERCE, GENERAL (0-21).....WORKFORCE**  
 Practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student. Prerequisites: Eight semester hours of major requirements and consent of instructor. Special Fee: \$2.00
- BUSI 1301 BUSINESS PRINCIPLES (3-0).....TRANSFER**  
 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. Special Fee: \$2.00
- BUSI 2301 BUSINESS LAW (3-0).....TRANSFER**  
 Principles of law which form the legal framework for business activity. Special Fee: \$2.00
- BUSI 2304 BUSINESS REPORT WRITING AND CORRESPONDENCE (3-0).....TRANSFER**  
*(Formerly BMGT 1305)* Theory and applications for technical reports and correspondence in business. Special Fee: \$2.00
- CETT 1402 ELECTRICITY PRINCIPLES (3-2).....WORKFORCE**  
 Principles of electricity including proper use of test equipment, A/C and D/C circuits, and component theory and operation. Lab Fee: \$24.00; Special Fee: \$52.00
- CETT 1407 FUNDAMENTALS OF ELECTRONICS (3-2) .....WORKFORCE**  
 Applies concepts of electricity, electronics, and digital fundamentals; supports programs requiring a general knowledge of electronics. Lab Fee: \$24.00; Special Fee: \$52.00
- CHEF 1001 BASIC FOOD PREPARATION (80 Class Hours).....CONTINUING EDUCATION**  
 A study of the fundamental principles of food preparation and cookery to include Brigade System, cooking techniques, material handling, heat transfer, sanitation, safety, nutrition, and professionalism. Prerequisite: CHEF 1005
- CHEF 1005 SANITATION AND SAFETY (32 Class Hours).....CONTINUING EDUCATION**  
 A study of personal cleanliness; sanitary practices in food preparation; causes, investigation, control of illness caused by food contamination (Hazard Analysis Critical Control Points); and work place safety standards.
- CHEF 2001 INTERMEDIATE FOOD PREP (80 Class Hours).....CONTINUING EDUCATION**  
 Continuation of previous food preparation course. Topics include the concept of pre-cooked food items, as well as scratch preparation. Covers full range of food preparation techniques. Prerequisites: CHEF 1001 and CHEF 1005
- CHEM 1406 INTRODUCTORY CHEMISTRY I (3-3).....TRANSFER**  
 Survey course introducing chemistry. Topics may include inorganic, organic, biochemistry, food/physiological chemistry and environmental/consumer chemistry. Designed for non-science and allied health students. Prerequisite: Texas Success Initiative complete in reading and mathematics. Lab Fee: \$24.00; Special Fee: \$8.00
- CHEM 1411 GENERAL CHEMISTRY I (3-3).....TRANSFER**  
 Fundamental principles of chemistry for majors in the sciences, health sciences, and engineering; topics include measurements, fundamental properties of matter, states of matter, chemical reactions, chemical stoichiometry, periodicity of elemental properties, atomic structure, chemical bonding, molecular structure, solutions, properties of gases, and an introduction to thermodynamics and descriptive chemistry. Basic laboratory experiments supporting theoretical principles; introduction of the scientific method, experimental design, data collection and analysis, and preparation of laboratory reports. Prerequisite: Texas Success Initiative complete in reading and MATH 1314 or MATH 1414. Lab Fee: \$24.00; Special Fee: \$8.00
- CHEM 1412 GENERAL CHEMISTRY II (3-3).....TRANSFER**  
 Chemical equilibrium; phase diagrams and spectrometry; acid-base concepts; thermodynamics; kinetics; electrochemistry; nuclear chemistry; an introduction to organic chemistry and descriptive inorganic chemistry. Basic laboratory experiments supporting theoretical principles presented in CHEM 1312; introduction of the scientific method, experimental design, chemical instrumentation, data collection and analysis, and preparation of laboratory reports. Prerequisites: CHEM 1411. Lab Fee: \$24.00; Special Fee: \$8.00
- CJLE 1003 POLICE SPEED MEASURING DEVICE CERTIFICATION (RADAR) (8 Class Hours).....CONTINUING EDUCATION**  
 Proper use of the Police Traffic speed measuring devices. Includes detection of speed violations, apprehension of violators, and securing convictions.
- CJLE 1006 BASIC PEACE OFFICER I (176 Class Hours).....CONTINUING EDUCATION**  
 Basic preparation for a new peace officer. Should be taken in conjunction with Basic Peace Officer II, III, IV, and V (supplement) to satisfy the Texas Commission on Law Enforcement (TCLEOSE) approved Basic Peace Officer Training Academy. \*\*\*THIS COURSE MAY BE OFFERED ONLY BY INSTITUTIONS LICENSED AS A POLICE ACADEMY BY TCLEOSE\*\*\*

- CJLE 1012 BASIC PEACE OFFICER II (176 Class Hours).....CONTINUING EDUCATION**  
 Basic preparation for a new peace officer. Should be taken in conjunction with Basic Peace Officer I, III, IV, and V (supplement) to satisfy the Texas Commission on Law Enforcement (TCLEOSE) approved Basic Peace Officer Academy. \*\*\*THIS COURSE MAY BE OFFERED ONLY BY INSTITUTIONS LICENSED AS A POLICE ACADEMY BY TCLEOSE\*\*\*
- CJLE 1018 BASIC PEACE OFFICER III (176 Class Hours).....CONTINUING EDUCATION**  
 Basic preparation for a new peace officer. Should be taken in conjunction with Basic Peace Officer I, II, IV, and V (supplement) to satisfy the Texas Commission on Law Enforcement (TCLEOSE) approved Basic Peace Officer Academy. \*\*\*THIS COURSE MAY BE OFFERED ONLY BY INSTITUTIONS LICENSED AS A POLICE ACADEMY BY TCLEOSE\*\*\*
- CJLE 1024 BASIC PEACE OFFICER IV (160 Class Hours).....CONTINUING EDUCATION**  
 Basic preparation for a new peace officer. Should be taken in conjunction with Basic Peace Officer I, II, III, and V (supplement) to satisfy the Texas Commission on Law Enforcement (TCLEOSE) approved Basic Peace Officer Training Academy. \*\*\*THIS COURSE MAY BE OFFERED ONLY BY INSTITUTIONS LICENSED AS A POLICE ACADEMY BY TCLEOSE\*\*\*
- CJLE 1029 BASIC PEACE OFFICER V (48 Class Hours).....CONTINUING EDUCATION**  
 Supplemental course taken in conjunction with Basic Peace Officer Courses I, II, III, and IV. Satisfies or exceeds the Texas Commission on Law Enforcement (TCLEOSE) approved Basic Peace Officer Academy Course #1000. \*\*\*THIS COURSE MAY BE OFFERED ONLY BY INSTITUTIONS LICENSED AS A POLICE ACADEMY BY TCLEOSE\*\*\*
- CJLE 2004 TACTICAL SKILLS WITH A LESS-THAN-LETHAL WEAPON (OC SPRAY) (8 Class Hours).....CONTINUING EDUCATION**  
 Defensive techniques utilizing a selected less-than-lethal weapon necessary to control a violent person.
- COSC 1301 INTRODUCTION TO COMPUTING (2-2).....TRANSFER**  
 Overview of computer systems—hardware, operating systems, and microcomputer application software, including the Internet, word processing, spreadsheets, presentation graphics, and databases. Current issues such as the effect of computers on society, and the history and use of computers in business, educational, and other modern settings are also studied. This course is not intended to count toward a student's major field of study in business or computer science. This course is based on Microsoft PC compatible computer systems and the Microsoft Office Suite which is currently available for the PC compatible systems. MAC/Apple users may use their MAC systems; however, they must be aware that there are many differences, inconsistencies, and lack of all required applications to complete the course curriculum when using a MAC/Apple computer system. The student is responsible for having or acquiring the required equipment and appropriate software to complete course requirements. Lab Fee: \$24.00; Special Fee: \$17.00
- CPMT 1451 IT ESSENTIALS: PC HARDWARE AND SOFTWARE (2-4).....WORKFORCE**  
 An introduction to the computer hardware and software skills needed to help meet the growing demand for entry-level information and communication technology (ICT) professionals. The curriculum covers the fundamentals of PC technology, networking, and security, and also provides an introduction to advanced concepts. Hands-on labs and Virtual Laptop and Virtual Desktop learning tools help students develop critical thinking and complex problem-solving skills. Cisco Packet Tracer simulation-based learning activities promote the exploration of network and networking security concepts and allow students to experiment with network behavior.  
 Lab Fee: \$24.00; Special Fee: \$50.00
- CRIJ 1301 INTRODUCTION TO CRIMINAL JUSTICE (3-0).....TRANSFER**  
 History, philosophy, and ethical considerations of criminal justice; the nature and impact of crime; and an overview of the criminal justice system, including law enforcement and court procedures. Prerequisite: Texas Success Initiative complete in reading and writing. Special Fee: \$2.00
- CRIJ 1306 COURT SYSTEMS AND PRACTICES (3-0).....TRANSFER**  
 Study of the judiciary in the American criminal justice system and the adjudication processes and procedures. Prerequisite: Texas Success Initiative complete in reading and writing. Special Fee: \$2.00
- CRIJ 1310 FUNDAMENTALS OF CRIMINAL LAW (3-0).....TRANSFER**  
 Study of criminal law, its philosophical and historical development, major definitions and concepts, classifications and elements of crime, penalties using Texas statutes as illustrations, and criminal responsibility. Prerequisite: Texas Success Initiative complete in reading and writing. Special Fee: \$2.00

- CRIJ 2313 CORRECTIONAL SYSTEMS AND PRACTICES (3-0).....TRANSFER**  
 Corrections in the criminal justice system; organization of correctional systems; correctional role; institutional operations; alternatives to institutionalization; treatment and rehabilitation; current and future issues. Prerequisite: Texas Success Initiative complete in reading and writing. Special Fee: \$2.00
- CRIJ 2328 POLICE SYSTEMS AND PRACTICES (3-0).....TRANSFER**  
 The police profession; organization of law enforcement systems; the police role; police discretion; ethics; police-community interaction; current and future issues. Prerequisite: Texas Success Initiative complete in reading and writing. Special Fee: \$2.00
- CSME 1401 ORIENTATION TO COSMETOLOGY (2-8).....WORKFORCE**  
 An overview of the skills and knowledge necessary for the field of cosmetology. Prerequisite: Consent of instructor. Lab Fee: \$24.00; Special Fee: \$22.00; Liability Insurance: \$22.00 (charged once each academic year)
- CSME 1405 FUNDAMENTALS OF COSMETOLOGY (2-8).....WORKFORCE**  
 A course in the basic fundamentals of cosmetology. Topics include safety and sanitation, service preparation, manicure, facial, chemical services, shampoo, haircut, wet styling, comb out. Prerequisite: Consent of instructor. Lab Fee: \$24.00; Special Fee: \$22.00
- CSME 1434 COSMETOLOGY INSTRUCTOR I (2-8).....WORKFORCE**  
 The fundamentals of instructing cosmetology students. Prerequisites: Consent of instructor and valid operator license, Texas Department of Licensing and Regulations. Lab Fee: \$24.00; Special Fee: \$22.00
- CSME 1435 ORIENTATION TO THE INSTRUCTION OF COSMETOLOGY (2-6).....WORKFORCE**  
 An overview of the skills and knowledge necessary for the instruction of cosmetology students. Prerequisites: Consent of instructor and valid operator license, Texas Department of Licensing and Regulations. Lab Fee: \$24.00; Special Fee: \$22.00; Liability Insurance: \$22 (charged once each academic year)
- CSME 1451 ARTISTRY OF HAIR, THEORY AND PRACTICE (2-8).....WORKFORCE**  
 Instruction in the artistry of hair design. Topics include theory, techniques, and application of hair design. Prerequisites: CSME 1401 or concurrent enrollment in CSME 1401 and consent of instructor. Lab Fee: \$24.00; Special Fee: \$22.00
- CSME 1543 MANICURING AND RELATED THEORY (3-8).....WORKFORCE**  
 Presentation of the theory and practice of nail services. Topics include terminology, application, and workplace competencies related to nail services. Prerequisite: Consent of instructor. Lab Fee: \$24.00; Special Fee: \$22.00
- CSME 1547 PRINCIPLES OF SKIN CARE/FACIALS AND RELATED THEORY (3-8)....WORKFORCE**  
 In-depth coverage of the theory and practice of skin care, facials, and cosmetics. Prerequisite: CSME 1405 or consent of instructor. Lab Fee: \$24.00; Special Fee: \$22.00
- CSME 1553 CHEMICAL REFORMATION AND RELATED THEORY (3-8).....WORKFORCE**  
 Presentation of the theory and practice of chemical reformation including terminology, application, and workplace competencies. Prerequisite: CSME 1405 or consent of instructor. Lab Fee: \$24.00; Special Fee \$22.00
- CSME 2244 PREPARATION FOR THE STATE LICENSING  
 WRITTEN EXAMINATION (1-4).....WORKFORCE**  
 Preparation for the state licensing written examination. Prerequisite: Consent of instructor. Lab Fee: \$10.00; Special Fee: \$2.00
- CSME 2245 PREPARATION FOR THE STATE LICENSING  
 PRACTICAL EXAMINATION (1-4).....WORKFORCE**  
 Preparation for the state licensing practical examination. Prerequisite: Consent of instructor. Lab Fee: \$24.00; Special Fee: \$22.00
- CSME 2310 ADVANCED HAIRCUTTING AND RELATED THEORY (1-8).....WORKFORCE**  
 Advanced concepts and practice of haircutting. Topics include haircuts utilizing scissors, razor, and/or clippers. Prerequisite: Concurrent enrollment in CSME 1405 and/or consent of instructor. Lab Fee: \$24.00; Special Fee: \$22.00
- CSME 2343 SALON DEVELOPMENT (2-4).....WORKFORCE**  
 Procedures necessary for salon development. Topics include professional ethics and goal setting, salon operation, and record keeping. Prerequisite: CSME 1405 or consent of instructor. Lab Fee: \$24.00; Special Fee: \$22.00; Liability Insurance: \$22.00 (charged once each academic year)

- CSME 2414 COSMETOLOGY INSTRUCTOR II (2-8).....WORKFORCE**  
 A continuation of the fundamentals of instructing cosmetology students. Prerequisites: Consent of instructor and valid operator license, Texas Department of Licensing and Regulations. Lab Fee: \$24.00; Special Fee: \$22.00
- CSME 2415 COSMETOLOGY INSTRUCTOR III (2-8).....WORKFORCE**  
 Presentation of lesson plan assignments and evaluation techniques. Prerequisites: Consent of instructor and valid operator license, Texas Department of Licensing and Regulations. Lab Fee: \$24.00; Special Fee: \$22.00; Liability Insurance \$22.00 (charged once each academic year)
- CSME 2444 COSMETOLOGY INSTRUCTOR IV (2-8).....WORKFORCE**  
 Advanced concepts of instruction in a cosmetology program. Topics include demonstration, development, and implementation of advanced evaluation and assessment techniques. Prerequisites: Consent of instructor and valid operator license, Texas Department of Licensing and Regulations. Lab Fee: \$24.00; Special Fee: \$22.00
- CSME 2501 THE PRINCIPLES OF HAIR COLORING AND RELATED THEORY (3-8).....WORKFORCE**  
 Presentation of the theory, practice, and chemistry of hair color and chemistry. Topics include terminology, application, and workplace competencies related to hair color. Prerequisite: CSME 1405 or consent of instructor. Lab Fee: \$24.00; Special Fee: \$22.00; Liability Insurance: \$22.00 (charged once each academic year)
- DFTG 1315 ARCHITECTURAL BLUEPRINT READING (3-0).....WORKFORCE**  
 The fundamentals of blueprint reading for the construction industry will be examined. Special Fee: \$24.00
- DFTG 2340 SOLID MODELING/DESIGN (3-1).....WORKFORCE**  
 A computer-aided modeling course. Development of three-dimensional drawings and models from engineering sketches and orthographic drawings and utilization of three-dimensional models in design work. Lab Fee: \$24.00; Special Fee: \$62.00
- DRAM 1120 THEATER PRACTICUM I (0-6).....TRANSFER**  
 Practicum in theater with emphasis on technique and procedures with experience gained in play productions. Lab Fee: \$24.00; Special Fee: \$2.00
- DRAM 1121 THEATER PRACTICUM II (0-6).....TRANSFER**  
 Practicum in theater with emphasis on technique and procedures with experience gained in play productions. Lab Fee: \$24.00; Special Fee: \$2.00
- DRAM 1310 INTRODUCTION TO THEATER (3-0).....TRANSFER**  
 Survey of all phases of theater including its history, dramatic works, stage techniques, production procedures, and relation to the fine arts. Participation in major productions may be required. Special Fee: \$18.00
- DRAM 2120 THEATER PRACTICUM III (0-6).....TRANSFER**  
 Practicum in theater with emphasis on technique and procedures with experience gained in play productions. Lab Fee: \$24.00; Special Fee: \$2.00
- DRAM 2121 THEATER PRACTICUM IV (0-6).....TRANSFER**  
 Practicum in theater with emphasis on technique and procedures with experience gained in play productions. Lab Fee: \$24.00; Special Fee: \$2.00
- ECON 2301 PRINCIPLES OF MACROECONOMICS (3-0).....TRANSFER**  
 An analysis of the economy as a whole including measurement and determination of Aggregate Demand and Aggregate Supply, national income, inflation, and unemployment. Other topics include international trade, economic growth, business cycles, and fiscal policy and monetary policy. Prerequisite: Texas Success Initiative complete in reading and writing. Special Fee: \$2.00
- ECON 2302 PRINCIPLES OF MICROECONOMICS (3-0).....TRANSFER**  
 Analysis of the behavior of individual economic agents, including consumer behavior and demand, producer behavior and supply, price and output decisions by firms under various market structures, factor markets, market failures, and international trade. Prerequisite: Texas Success Initiative complete in reading and writing. Special Fee: \$2.00
- EDUC 1300 LEARNING FRAMEWORK (3-0).....TRANSFER**  
 A study of the: research and theory in the psychology of learning, cognition, and motivation; factors that impact learning, and application of learning strategies. Theoretical models of strategic learning, cognition, and motivation serve as the conceptual basis for the introduction of college-level student academic strategies. Students use assessment instruments (e.g., learning inventories) to help them identify their own strengths and weaknesses as strategic learners. Students are ultimately expected to integrate and apply the learning skills discussed across their own academic programs and become effective and efficient learners.



**EDUC 1301 INTRODUCTION TO THE TEACHING PROFESSION (2-2).....TRANSFER**

An enriched integrated pre-service course and content experience that provides active recruitment and institutional support of students interested in a teaching career, especially in high need fields; provides students with opportunities to participate in early field observations at all levels of P-12 schools with varied and diverse student populations; provides students with support from college and school faculty, preferably in small cohort groups, for the purpose of introduction to and analysis of the culture of schooling and classrooms; course content should be aligned as applicable with State Board for Educator Certification Pedagogy and Professional Responsibilities standards; and course includes a 32 contact hour lab component, of which a minimum of 16 contact hours is field experience in P-12 classrooms. Lab Fee: \$16.00; Special Fee: \$2.00

**EDUC 2301 INTRODUCTION TO SPECIAL POPULATIONS (2-2).....TRANSFER**

An enriched integrated pre-service course and content experience that provides an overview of schooling and classrooms from the perspectives of exceptional individuals of language, gender, socioeconomic status, ethnic and academic diversity, and equity with an emphasis on factors that facilitate learning; provides students with opportunities to participate in early field observations of P-12 special populations; should be aligned as applicable with State Board for Educator Certification Pedagogy and Professional Responsibilities standards; course includes a 32 contact hour lab component; of which a minimum of 16 contact hours is field experience in P-12 classrooms with special populations. Prerequisite: EDUC 1301. Lab Fee: \$16.00; Special Fee: \$2.00

**EEIR 2366 PRACTICUM (OR FIELD EXPERIENCE) - ELECTRICAL/ELECTRONICS EQUIPMENT INSTALLATION AND REPAIRER, GENERAL (0-21).....WORKFORCE**

Practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student. The guided external experiences may be paid or unpaid. Prerequisites: Eight semester hours of major requirements and consent of instructor. Special Fee: \$2.00

**ELMT 2433 INDUSTRIAL ELECTRONICS (3-2).....WORKFORCE**

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. Includes presentation of programming schemes. Prerequisites: ELPT 1457. Lab Fee: \$24.00; Special Fee: \$52.00

**ELMT 2441 ELECTROMECHANICAL SYSTEMS (3-2).....WORKFORCE**

Covers the application of electromechanical systems, including linear and rotational positioning systems, and their associated control systems, and the methods employed to operate them. Students will devise open and closed loop control solutions for a variety of positioning and power transformation problems. Emphasis is placed on programmable control devices and solid state systems. Prerequisites: Consent of instructor. Lab Fee: \$24.00; Special Fee: \$52.00

**ELPT 1441 MOTOR CONTROL (3-2).....WORKFORCE**

Operating principles of solid-state and conventional controls along with their practical applications. Includes braking, jogging, plugging, and safety interlocks, wiring, and schematic diagram interpretations. Prerequisite: CETT 1402 or concurrent enrollment. Lab Fee: \$24.00; Special Fee: \$52.00

**ELPT 1457 INDUSTRIAL WIRING (3-2).....WORKFORCE**

Wiring methods used for industrial installations. Includes motor circuits, raceway and bus way installations, proper grounding techniques, and associated safety procedures. Prerequisite: CETT 1402. Lab Fees: \$24.00; Special Fee: \$52.00

**ELPT 2339 ELECTRICAL POWER DISTRIBUTION (3-1).....WORKFORCE**

Design, operation, and technical details of modern power distribution systems including generating equipment, transmission lines, plant distribution, and protective devices. Includes calculations of fault current, system load analysis, rates, and power economics. Prerequisite: ELPT 1457. Lab Fee: \$24.00; Special Fee: \$52.00

**ELPT 2419 PROGRAMMABLE LOGIC CONTROLLERS I (3-2).....WORKFORCE**

Fundamental concepts of programmable logic controllers, principles of operation, and numbering system as applied to electrical controls. Prerequisite: ELPT 1441. Lab Fee: \$24.00; Special Fee: \$52.00

**ELPT 2443 ELECTRICAL SYSTEMS DESIGN (3-2).....WORKFORCE**

Electrical design of commercial and/or industrial projects including building layout, types of equipment, placement, sizing of electrical equipment, and all electrical calculations according to the requirements of the National Electrical Code (NEC). Prerequisite: ELPT 1457 Lab Fee: \$24.00; Special Fee: \$52.00

**ELPT 2449 INDUSTRIAL AUTOMATION (3-2).....WORKFORCE**

Electrical control systems, applications, and interfacing utilized in industrial automation. Prerequisite: ELPT 2419. Lab Fee: \$24.00; Special Fee: \$52.00

- EMSP 1162 CLINICAL - EMERGENCY MEDICAL TECHNOLOGY/TECHNICIAN  
(EMT PARAMEDIC) (A) (0-6).....WORKFORCE**  
A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional. Clinical education is an unpaid learning experience. Student may be required to travel to fulfill course requirements. Prerequisite: Consent of instructor. Must make arrangements prior to enrollment. Liability Insurance: \$89.00 (Charged once each academic year.); Special Fee: \$2.00
- EMSP 1163 CLINICAL - EMERGENCY MEDICAL TECHNOLOGY/TECHNICIAN  
(EMT PARAMEDIC) (A) (0-6).....WORKFORCE**  
A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional. Clinical education is an unpaid learning experience. Student may be required to travel to fulfill course requirements. Prerequisite: Consent of instructor. Must make arrangements prior to enrollment. Liability Insurance: \$89.00 (Charged once each academic year.); Special Fee: \$102.00
- EMSP 1260 CLINICAL - EMERGENCY MEDICAL TECHNOLOGY/TECHNICIAN  
(EMT PARAMEDIC) (B) (0-6).....WORKFORCE**  
A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional. Clinical education is an unpaid learning experience. Student may be required to travel to fulfill course requirements. Prerequisite: EMSP 1501. Liability Insurance: \$89.00 (Charged once each academic year.); Special Fee: \$72.00
- EMSP 1338 INTRODUCTION TO ADVANCED PRACTICE (3-0).....WORKFORCE**  
Fundamental elements associated with emergency medical services to include preparatory practices, pathophysiology, medication administration, and related topics. Prerequisites: Texas Success Initiative complete in reading, writing, and math, EMSP 1501, concurrent enrollment, or consent of instructor. Lab Fee: \$24.00; Special Fee: \$50.00
- EMSP 1355 TRAUMA MANAGEMENT (2-2).....WORKFORCE**  
Knowledge and skills in the assessment and management of patients with traumatic injuries. Prerequisite: EMSP 1356, concurrent enrollment, or consent of instructor. Lab Fee: \$24.00; Special Fee: \$50.00
- EMSP 1356 PATIENT ASSESSMENT AND AIRWAY MANAGEMENT (2-2).....WORKFORCE**  
Knowledge and skills required to perform patient assessment, airway management, and artificial ventilation. Prerequisite: EMSP 1338, concurrent enrollment, or consent of instructor. Lab Fee: \$24.00; Special Fee: \$50.00
- EMSP 1501 EMERGENCY MEDICAL TECHNICIAN (4-4).....WORKFORCE**  
Preparation for certification as an Emergency Medical Technician (EMT). Prerequisites: Texas Success Initiative complete in reading, writing, and math. Current American Heart Association Health Care Provider or American Red Cross Professional Rescuer or equivalent course completion. Lab Fee: \$24.00; Special Fee: \$50.00
- EMSP 2143 ASSESSMENT BASED MANAGEMENT (0-2).....WORKFORCE**  
A capstone experience covering comprehensive, assessment based patient care management. Includes specific care when dealing with pediatric, adult, geriatric, and special-needs patients. Prerequisites: EMSP 1355, EMSP 1356, EMSP 2330, EMSP 2434, and EMSP 2444, concurrent enrollment, or consent of instructor. Lab Fee: \$24.00; Special Fee: \$50.00
- EMSP 2161 CLINICAL - EMERGENCY MEDICAL TECHNOLOGY/TECHNICIAN  
(EMT PARAMEDIC) (P) (0-6).....WORKFORCE**  
A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional. Clinical education is an unpaid learning experience. Prerequisite: Consent of instructor. Must make arrangements prior to enrollment. Student may be required to travel to fulfill course requirements. Liability Insurance: \$89.00 (Charged once each academic year.); Special Fee: \$112.00
- EMSP 2238 EMS OPERATIONS (2-0).....WORKFORCE**  
Knowledge and skills to safely manage multi-casualty incidents and rescue situations; utilize aid medical resources; identify hazardous material and other specialized incidents. Prerequisites: EMSP 1338, EMSP 1355, EMSP 1356, and EMSP 2248, concurrent enrollment, or consent of instructor. Special Fee \$50.00
- EMSP 2248 EMERGENCY PHARMACOLOGY (1-3).....WORKFORCE**  
Utilization of medications in treating emergency situations. Prerequisite: Texas Success Initiative complete in reading, writing, and math or consent of instructor. Lab Fee: \$24.00; Special Fee: \$12.00

- EMSP 2260 CLINICAL - EMERGENCY MEDICAL TECHNOLOGY/TECHNICIAN (EMT PARAMEDIC) (P) (0-8).....WORKFORCE**  
 A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional. Clinical education is an unpaid learning experience. Prerequisite: Consent of instructor. Must make arrangements prior to enrollment. Student may be required to travel to fulfill course requirements. Liability Insurance: \$89.00 (Charged once each academic year); Special Fee: \$2.00
- EMSP 2330 SPECIAL POPULATIONS (3-1).....WORKFORCE**  
 Knowledge and skills necessary to assess and manage ill or injured patients in diverse populations to include neonatology, pediatrics, geriatrics, and other related topics. Prerequisites: EMSP 1338, EMSP 1355, EMSP 1356, and EMSP 2248, concurrent enrollment, or consent of instructor. Lab Fee: \$24.00; Special Fee: \$50.00
- EMSP 2434 MEDICAL EMERGENCIES (3-2).....WORKFORCE**  
 Knowledge and skills in the assessment and management of patients with medical emergencies, including medical overview, neurology, gastroenterology, immunology, pulmonology, urology, hematology, endocrinology, toxicology, and other related topics. Prerequisites: EMSP 1338, EMSP 1355, EMSP 1356, and EMSP 2248, concurrent enrollment, or consent of instructor. Lab Fee: \$24.00; Special Fee: \$50.00
- EMSP 2444 CARDIOLOGY (3-2).....WORKFORCE**  
 Assessment and management of patients with cardiac emergencies. Includes single and multi-level ECG interpretations. Prerequisites: EMSP 1338, EMSP 1355, EMSP 1356, and EMSP 2248. Lab Fee: \$24.00; Special Fee: \$50.00
- ENGL 0300 BASIC WRITING SKILLS I (3-0).....DEVELOPMENTAL**  
 A study of the fundamental principles of grammar and language conventions needed in composition. Emphasis on sentence structure, short essay and summary writing. Course designed for students who score 0-189 on the writing section of THEA or below 80 with an essay score of 0-3 on Accuplacer. Special Fee: \$17.00
- ENGL 0301 BASIC WRITING SKILLS II (3-0).....DEVELOPMENTAL**  
 Review of basic principles of grammar and composition within the essay. Study of topic sentences; logical support and elaboration; organization of ideas; transition devices; editing for correctness; unity and coherence; prewriting, outlining and revising; methods of paragraph development. Prerequisite: Score of 190-210 on writing section of THEA or 80 or below with an essay score of 4 on Accuplacer, or grade of C or better in ENGL 0300. Special Fee: \$17.00
- ENGL 0302 BASIC WRITING SKILLS III (3-0).....DEVELOPMENTAL**  
 Review of grammar and composition. Study of special paragraph types (introductory, supporting, transition, and concluding), thesis sentences, model essays, outlining, dictionary use, word choice and sentence variety. Prerequisite: Score of 211-219 on essay section of THEA or 79 and below with an essay score of 5 on Accuplacer, or grade of C or better in ENGL 0301. Special Fee: \$17.00
- ENGL 1301 COMPOSITION I (3-0).....TRANSFER**  
 Intensive study of and practice in writing processes, from invention and researching to drafting, revising, and editing, both individually and collaboratively. Emphasis on effective rhetorical choices, including audience, purpose, arrangement, and style. Focus on writing the academic essay as a vehicle for learning, communicating, and critical analysis. Prerequisite: Texas Success Initiative complete in reading and writing. Special Fee: \$22.00
- ENGL 1302 COMPOSITION II (3-0).....TRANSFER**  
 Intensive study of and practice in the strategies and techniques for developing research-based expository and persuasive texts. Emphasis on effective and ethical rhetorical inquiry, including primary and secondary research methods; critical reading of verbal, visual, and multimedia texts; systematic evaluation, synthesis, and documentation of information sources; and critical thinking about evidence and conclusions. Prerequisite: ENGL 1301. Special Fee: \$22.00
- ENGL 2322 BRITISH LITERATURE I (3-0).....TRANSFER**  
 A survey of the development of British literature from the Anglo-Saxon period to the Eighteenth Century. Students will study works of prose, poetry, drama, and fiction in relation to their historical, linguistic, and cultural contexts. Texts will be selected from a diverse group of authors and traditions. Prerequisite: ENGL 1302 or consent of instructor. Special Fee: \$12.00
- ENGL 2323 BRITISH LITERATURE II (3-0).....TRANSFER**  
 A survey of the development of British literature from the Romantic period to the present. Students will study works of prose, poetry, drama, and fiction in relation to their historical and cultural contexts. Texts will be selected from a diverse group of authors and traditions. Prerequisite: ENGL 1302 or consent of instructor. Special Fee: \$12.00

- ENGL 2327 AMERICAN LITERATURE I (3-0).....TRANSFER**  
 A survey of American literature from the period of exploration and settlement through the Civil War. Students will study works of prose, poetry, drama, and fiction in relation to their historical and cultural contexts. Texts will be selected from among a diverse group of authors for what they reflect and reveal about the evolving American experience and character. Recommended for English majors and minors. Prerequisite: ENGL 1302 or consent of instructor. Special Fee: \$12.00
- ENGL 2328 AMERICAN LITERATURE II (3-0).....TRANSFER**  
 A survey of American literature from the Civil War to the present. Students will study works of prose, poetry, drama, and fiction in relation to their historical and cultural contexts. Texts will be selected from among a diverse group of authors for what they reflect and reveal about the evolving American experience and character. Recommended for English majors and minors. Prerequisite: ENGL 1302 or consent of instructor. Special Fee: \$12.00
- ENGL 2331 WORLD LITERATURE (3-0).....TRANSFER**  
 A survey of world literature from the ancient world to the present. Students will study works of prose, poetry, drama, and fiction in relation to their historical and cultural contexts. Texts will be selected from a diverse group of authors and traditions. Prerequisite: ENGL 1301 Special Fee: \$2.00
- ENGL 2332 WORLD LITERATURE I (3-0).....TRANSFER**  
 A survey of world literature from the ancient world through the sixteenth century. Students will study works of prose, poetry, drama, and fiction in relation to their historical and cultural contexts. Texts will be selected from a diverse group of authors and traditions. Prerequisite: ENGL 1301. Special Fee: \$12.00
- ENGL 2333 WORLD LITERATURE II (3-0).....TRANSFER**  
 A survey of world literature from the seventeenth century to the present. Students will study works of prose, poetry, drama, and fiction in relation to their historical and cultural contexts. Texts will be selected from a diverse group of authors and traditions. Prerequisite: ENGL 1301. Special Fees: \$12.00
- FIRS 1001 FIREFIGHTER CERTIFICATION I (112 Class Hours).....CONTINUING EDUCATION**  
 One in a series of courses in basic preparation for a new firefighter. Should be taken in conjunction with Firefighter Certification II, III, IV, V, VI, and VII to satisfy the Texas Commission on Fire Protection (TCFP) curriculum for Basic Structural Fire Suppression, Course #100. Prerequisite: EMT Certification. \*\*\*THIS COURSE MAY BE OFFERED ONLY BY INSTITUTIONS CERTIFIED TRAINING FACILITY BY THE TEXAS COMMISSION ON FIRE PROTECTION (TCFP) \*\*\* Prerequisite: EMT certification.
- FIRS 1007 FIREFIGHTER CERTIFICATION II (144 Class Hours).....CONTINUING EDUCATION**  
 One in a series of courses in basic preparation for a new firefighter. Should be taken in conjunction with Firefighter Certification I, III, IV, V, VI, and VII to satisfy the Texas Commission on Fire Protection (TCFP) curriculum for Basic Structural Fire Suppression, Course #100. \*\*\*THIS COURSE MAY BE OFFERED ONLY BY INSTITUTIONS CERTIFIED AS A TRAINING FACILITY BY THE TEXAS COMMISSION ON FIRE PROTECTION\*\*\*
- FIRS 1013 FIREFIGHTER CERTIFICATION III (96 Class Hours).....CONTINUING EDUCATION**  
 One in a series of courses in basic preparation for a new firefighter. Should be taken in conjunction with Firefighter Certification I, II, IV, V, VI, and VII to satisfy the Texas Commission on Fire Protection (TCFP) curriculum for Basic Structural Fire Suppression, Course #100. \*\*\*THIS COURSE MAY BE OFFERED ONLY BY INSTITUTIONS CERTIFIED AS A TRAINING FACILITY BY THE TEXAS COMMISSION ON FIRE PROTECTION\*\*\*
- FIRS 1019 FIREFIGHTER CERTIFICATION IV (48 Class Hours).....CONTINUING EDUCATION**  
 One in a series of courses in basic preparation for a new firefighter. Should be taken in conjunction with Firefighter Certification I, II, III, V, VI, and VII to satisfy the Texas Commission on Fire Protection (TCFP) curriculum for Basic Structural Fire Suppression, Course #100. \*\*\*THIS COURSE MAY BE OFFERED ONLY BY INSTITUTIONS CERTIFIED AS A TRAINING FACILITY BY THE TEXAS COMMISSION ON FIRE PROTECTION\*\*\*
- FIRS 1023 FIREFIGHTER CERTIFICATION V (96 Class Hours).....CONTINUING EDUCATION**  
 One in a series of courses in basic preparation for a new firefighter. Should be taken in conjunction with Firefighter Certification I, II, III, IV, VI, and VII to satisfy the Texas Commission on Fire Protection (TCFP) curriculum for Basic Structural Fire Suppression, Course #100. \*\*\*THIS COURSE MAY BE OFFERED ONLY BY INSTITUTIONS CERTIFIED AS A TRAINING FACILITY BY THE TEXAS COMMISSION ON FIRE PROTECTION\*\*\*
- FIRS 1029 FIREFIGHTER CERTIFICATION VI (128 Class Hours).....CONTINUING EDUCATION**  
 One in a series of courses in basic preparation for a new firefighter. Should be taken in conjunction with Firefighter Certification I, II, III, IV, V, and VII to satisfy the Texas Commission on Fire Protection (TCFP) curriculum for Basic Structural Fire Suppression, Course #100. \*\*\*THIS COURSE MAY BE OFFERED ONLY BY INSTITUTIONS CERTIFIED AS A TRAINING FACILITY BY THE TEXAS COMMISSION ON FIRE PROTECTION\*\*\*

**FIRS 1033 FIREFIGHTER CERTIFICATION VII (128 Class Hours).....CONTINUING EDUCATION**

One in a series of courses in basic preparation for a new firefighter. Should be taken in conjunction with Firefighter Certification I, II, III, IV, V, and VI to satisfy the Texas Commission on Fire Protection (TCFP) curriculum for Basic Structural Fire Suppression, Course #100. \*\*\*THIS COURSE MAY BE OFFERED ONLY BY INSTITUTIONS CERTIFIED AS A TRAINING FACILITY BY THE TEXAS COMMISSION ON FIRE PROTECTION\*\*\*

**GOVT 2304 INTRODUCTION TO POLITICAL SCIENCE (3-0).....TRANSFER**

Introductory survey of the discipline of political science focusing on the history, scope, and methods of the field, and the substantive topics in the discipline. This course will **not** satisfy the government class requirements for graduation. It is highly recommended for potential government and social science majors. Prerequisite: Texas Success Initiative complete in reading and writing. Special Fee: \$2.00

**GOVT 2305 FEDERAL GOVERNMENT (Federal Constitution and Topics) (3-0).....TRANSFER**

Origin and development of the U.S. Constitution, structure and powers of the national government including the legislative, executive, and judicial branches, federalism, political participation, the national election process, public policy, civil liberties and civil rights. Special Fee: \$2.00

**GOVT 2306 TEXAS GOVERNMENT (Texas Constitution and Topics) (3-0).....TRANSFER**

Origin and development of the Texas constitution, structure and powers of state and local government, federalism and inter-governmental relations, political participation, the election process, public, policy, and the political culture of Texas. This course may not be accepted by out-of-state colleges. Special Fee: \$2.00

**HAMG 1021 INTRODUCTION TO HOSPITALITY**

**INDUSTRY (48 Class Hours).....CONTINUING EDUCATION**

Introduction to the elements of the hospitality industry.

**HAMG 1024 HOSPITALITY HUMAN RESOURCE**

**MANAGEMENT (48 Class Hours).....CONTINUING EDUCATION**

Principles and procedures of human resource management in the hospitality industry.

**HAMG 2037 HOSPITALITY FACILITIES**

**MANAGEMENT (32 Class Hours).....CONTINUING EDUCATION**

Identification of building systems, facilities and sustainability management, security, and safety procedures.

**HART 1401 BASIC ELECTRICITY FOR HVAC (3-2).....WORKFORCE**

Principles of electricity as required by HVAC technician including proper use of test equipment, electrical circuits, and component theory and operation. Lab Fee: \$24.00; Special Fee: \$60.00

**HART 1403 AIR CONDITIONING CONTROL PRINCIPLES (3-2).....WORKFORCE**

A basic study of HVAC and refrigeration controls; troubleshooting of control components; emphasis on use of wiring diagrams to analyze high and low voltage circuits; a review of Ohm's law as applied to air conditioning controls and circuits. Lab Fee: \$24.00; Special Fee: \$60.00

**HART 1407 REFRIGERATION PRINCIPLES (3-2).....WORKFORCE**

An introduction to the refrigeration cycle, heat transfer theory, temperature/pressure relationship, refrigerant handling, refrigeration components, and safety. Lab Fee: \$24.00; Special Fee: \$60.00

**HART 1441 RESIDENTIAL AIR CONDITIONING (3-2).....WORKFORCE**

A study of components, applications, and installation of mechanical air conditioning systems including operating conditions, troubleshooting, repair, and charging of air conditioning systems. Prerequisite: Consent of instructor. Lab Fee: \$24.00; Special Fee: \$60.00

**HART 1445 GAS AND ELECTRIC HEATING (3-2).....WORKFORCE**

Study of the procedures and principles used in servicing heating systems including gas fired furnaces and electric heating systems. Prerequisite: Consent of instructor. Lab Fee: \$24.00; Special Fee: \$60.00

**HART 2368 PRACTICUM (OR FIELD EXPERIENCE) - HEATING, AIR CONDITIONING, AND REFRIGERATION TECHNOLOGY/TECHNICIAN (0-21).....WORKFORCE**

Practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student. The guided external experiences may be paid or unpaid. Prerequisite: Consent of instructor. Special Fee: \$10.00

**HART 2434 ADVANCED A/C CONTROLS (3-2).....WORKFORCE**

Theory and application of electrical control devices, electromechanical controls, and/or pneumatic controls. Prerequisites: Consent of Instructor. Lab Fee: \$24.00; Special Fee: \$60.00

- HART 2436 AIR CONDITIONING TROUBLESHOOTING (3-2).....WORKFORCE**  
 An advanced course in application of troubleshooting principles and use of test instruments to diagnose air conditioning and refrigeration components and system problems including conducting performance tests. Prerequisites: Consent of instructor. Lab Fee: \$24.00; Special Fee: \$60.00
- HART 2441 COMMERCIAL AIR CONDITIONING (3-2).....WORKFORCE**  
 A study of components, applications, and installation of air conditioning systems with capacities of 25 tons or less. Prerequisite: Consent of instructor. Lab Fee: \$24.00; Special Fee: \$60.00; ICE Test Fee: \$30.00
- HART 2449 HEAT PUMPS (3-2).....WORKFORCE**  
*(Formerly HART 1449)* A study of heat pumps, heat pump control circuits, defrost controls, auxiliary heat, air flow, and other topics related to heat pump systems. Prerequisite: Consent of instructor. Lab Fee: \$24.00; Special Fee: \$60.00
- HIST 1301 UNITED STATES HISTORY I (3-0).....TRANSFER**  
 A survey of the social, political, economic, cultural, and intellectual history of the United States from the pre-Columbian era to the Civil War/Reconstruction period. United States History I includes the study of pre-Columbian, colonial, revolutionary, early national, slavery and sectionalism, and the Civil War/Reconstruction eras. Themes that may be addressed in United States History I include: American settlement and diversity, American culture, religion, civil and human rights, technological change, economic change, immigration and migration, and creation of the federal government. Prerequisite: Texas Success Initiative complete in reading and writing. Special Fee: \$2.00.
- HIST 1302 UNITED STATES HISTORY II (3-0).....TRANSFER**  
 A survey of the social, political, economic, cultural, and intellectual history of the United States from the Civil War/Reconstruction era to the present. United States History II examines industrialization, immigration, world wars, the Great Depression, Cold War and post-Cold War eras. Themes that may be addressed in United States History II include: American culture, religion, civil and human rights, technological change, economic change, immigration and migration, urbanization and suburbanization, the expansion of the federal government, and the study of U.S. foreign policy. Prerequisite: Texas Success Initiative complete in reading and writing. Special Fee: \$2.00
- HIST 2311 WESTERN CIVILIZATION I (3-0).....TRANSFER**  
 A survey of the social, political, economic, cultural, religious, and intellectual history of Europe and the Mediterranean world from human origins to the 17th century. Themes that should be addressed in Western Civilization I include the cultural legacies of Mesopotamia, Egypt, Greece, Rome, Byzantium, Islamic civilizations, and Europe through the Middle Ages, Renaissance, and Reformations. Prerequisite: Texas Success Initiative complete in reading and writing. Special Fee: \$2.00
- HIST 2312 WESTERN CIVILIZATION II (3-0).....TRANSFER**  
 A survey of the social, political, economic, cultural, religious, and intellectual history of Europe and the Mediterranean world from the 17th century to the modern era. Themes that should be addressed in Western Civilization II include absolutism and constitutionalism, growth of nation states, the Enlightenment, revolutions, classical liberalism, industrialization, imperialism, global conflict, the Cold War, and globalism. Prerequisite: Texas Success Initiative complete in reading and writing. Special Fee: \$2.00
- HITT 1301 HEALTH DATA CONTENT AND STRUCTURE (2-2).....WORKFORCE**  
 Introduction to systems and processes for collecting, maintaining, and disseminating primary and secondary health related information including content of health record, documentation requirements, registries, indices, licensing, regulatory agencies, forms, and screens. Lab Fee: \$24.00; Special Fee: \$50.00
- HITT 1305 MEDICAL TERMINOLOGY I (3-0).....WORKFORCE**  
 Study of medical terms through word origin and structure. Introduction to abbreviations and symbols, surgical and diagnostic procedures, and medical specialties. Special Fee: \$50.00
- HITT 1311 HEALTH INFORMATION SYSTEMS (2-2).....WORKFORCE**  
 Introduction to health IT standards, health-related data structures, software applications and enterprise architecture in health care and public health. Prerequisite: COSC 1301, concurrent enrollment, or consent of instructor. Lab Fee: \$24.00; Special Fee: \$50.00
- HITT 1341 CODING AND CLASSIFICATION SYSTEMS (2-2).....WORKFORCE**  
 Fundamentals of coding rules, conventions, and guidelines using clinical classification systems. Prerequisites: HITT 1305 and MDCA 1302. Lab Fee: \$24.00; Special Fee: \$50.00
- HITT 1345 HEALTH CARE DELIVERY SYSTEMS (2-2).....WORKFORCE**  
 Examination of delivery systems including organization, financing, accreditation, licensure, and regulatory agencies. Lab Fee: \$24.00; Special Fee: \$50.00

**HITT 1353 LEGAL AND ETHICAL ASPECTS OF HEALTH INFORMATION (3-0).....WORKFORCE**

Concepts of privacy, security, confidentiality, ethics, health care legislation, and regulations relating to the maintenance and use of health information. Special Fee: \$50.00

**HITT 2260 CLINICAL - HEALTH INFORMATION/MEDICAL RECORDS TECHNOLOGY/TECHNICIAN (0-6).....WORKFORCE**

A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional. Clinical education is an unpaid learning experience. Prerequisites: Consent of instructor; criminal background check required. Student may be required to travel to fulfill course requirements. Liability insurance: \$22.00 (charged once each academic year); Special Fee: \$37.00

**HITT 2335 CODING AND REIMBURSEMENT METHODOLOGIES (2-2).....WORKFORCE**

Advanced coding techniques with emphasis on case studies, health records, and federal regulations regarding prospective payment systems and methods of reimbursement. Prerequisites: HITT 1341, BIOL 2401 and BIOL 2402. Lab Fee: \$24.00; Special Fee: \$50.00

**HITT 2339 HEALTH INFORMATION ORGANIZATION AND SUPERVISION (3-0).....WORKFORCE**

Principles of organization and supervision of human, fiscal, and capital resources. Prerequisite: Must have completed Health Information Technology Medical Coding certificate of completion. Special Fee: \$50.00

**HITT 2340 ADVANCED MEDICAL BILLING AND REIMBURSEMENT (2-2).....WORKFORCE**

Skill development in coding to prepare reimbursement forms in various health care settings for submission to payors. Prerequisites: HITT 1341 and HITT 2335. Lab Fee: \$24.00; Special Fee: \$50.00

**HITT 2343 QUALITY ASSESSMENT AND PERFORMANCE IMPROVEMENT (2-2).....WORKFORCE**

Study of quality standards and methodologies in the health information management environment. Topics include licensing, accreditation, compilation, and presentation of data in statistical formats, quality management and performance improvement functions, utilization management, risk management, and medical staff data quality issues, and approaches to assessing patient safety issues and implementation of quality management and reporting through electronic systems. Prerequisite: HITT 1301. Lab Fee: \$24.00; Special Fee: \$50.00

**HITT 2361 CLINICAL - HEALTH INFORMATION/MEDICAL RECORDS TECHNOLOGY/TECHNICIAN (0-9).....WORKFORCE**

A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional. Clinical education is an unpaid learning experience. Prerequisites: Consent of instructor; criminal background check required. Student may be required to travel to fulfill course requirements. Liability insurance: \$22.00 (charged once each academic year); Special Fee: \$37.00; Certification Test Fee: \$229.00 (includes AHIMA membership)

**HPRS 1206 ESSENTIALS OF MEDICAL TERMINOLOGY (SRGT) (1-2).....WORKFORCE**

A study of medical terminology, word origin, structure, and application. Areas of instruction include anatomy, physiology, and pathophysiology as it relates to surgically treatable diseases and disorders. Medical term components related to all body systems are covered in this course. Prerequisites: Must be admitted to the Surgical Technology program prior to registration. Lab Fees: \$24.00 Special Fee: \$2.00

**HRPO 2301 HUMAN RESOURCES MANAGEMENT (3-0).....WORKFORCE**

Behavioral and legal approaches to the management of human resources in organizations. Special Fee: \$2.00

**HRPO 2307 ORGANIZATIONAL BEHAVIOR (3-0).....WORKFORCE**

The analysis and application of organizational theory, group dynamics, motivation theory, leadership concepts, and the integration of interdisciplinary concepts from the behavioral sciences. Special Fee: \$2.00

**IFWA 1010 NUTRITION AND MENU PLANNING (64 Class Hours).....CONTINUING EDUCATION**

Application of principles of nutrition in planning menus for the food service industry.

**ITCC 1301 CISCO EXPLORATION 1- NETWORK FUNDAMENTALS (2-3).....WORKFORCE**

A course introducing the architecture, structure, functions, components, and models of the internet. Describes the use of OSI and TCP layered models to examine the nature and roles of protocols and services at the applications, network, data link, and physical layers. Covers the principles and structure of IP addressing and the fundamentals of Ethernet concepts, media, and operations. Build simple LAN topologies by applying basic principles of cabling; perform basic configurations of network devices, including routers and switches; and implementing IP addressing schemes. Lab Fee: \$24.00; Special Fee: \$137.00

**ITCC1304 CISCO EXPLORATION 2- ROUTING PROTOCOLS AND CONCEPTS (2-3).....WORKFORCE**

This course describes the architecture, components, and operation of routers, and explains the principles of routing and routing protocols. Students analyze, configure, verify, and troubleshoot the primary routing protocols RIPv1, RIPv2, EIGRP, and OSPF. Recognize and correct common routing issues and problems. Model and analyze routing processes. Prerequisite: ITNW 1325 or ITCC 1301. Lab Fee: \$24.00; Special Fee: \$137.00

**ITCC 2308 CISCO EXPLORATION 3 - LAN SWITCHING AND WIRELESS (2-3).....WORKFORCE**

This course helps students develop an in-depth understanding of how switches operate and are implemented in the LAN environment for small and large networks. Detailed explanations of LAN switch operations, VLAN implementation, Rapid Spanning Tree Protocol (RSTP), VLAN Trunking Protocol (VTP), Inter-VLAN routing, and wireless network operations. Analyze, configure, verify, and troubleshoot VLANs, RSTP, VTP, and wireless networks. Campus network design and Layer 3 switching concepts are introduced. Prerequisite: ITCC 1304. Lab Fee: \$24.00; Special Fee: \$137.00

**ITCC2310 CISCO EXPLORATION 4- ACCESSING THE WAN (2-3).....WORKFORCE**

This course explains the principles of traffic control and access control lists (ACLs) and provides an overview of the services and protocols at the data link layer for wide-area access. Describes user access technologies and devices and discover how to implement and configure Point-to-Point Protocol (PPP), Point-to-Point Protocol over Ethernet (PPPoE), DSL, and Frame Relay. WAN security concepts, tunneling, and VPN basics are introduced. Discuss the special network services required by converged applications and an introduction to quality of service (QoS). Prerequisite: ITCC 1301 and ITCC 1304. Lab Fee: \$24.00; Special Fee: \$137.00

**ITCC 2443 NETWORK SECURITY (3-2).....WORKFORCE**

Overall security processes with particular emphasis on hands-on skills in the following areas: security policy design and management; security technologies; products and solutions; firewall and secure router design, installation, configuration, and maintenance; AAA and VPN implementation using routers and firewalls. Prerequisites: ITCC 1301 and ITCC 1304. Requires ability to configure switches and routers. Lab Fees: \$24.00; Special Fee: \$140.00

**ITNW 1325 FUNDAMENTALS OF NETWORKING TECHNOLOGIES (2-2).....WORKFORCE**

Instruction in networking technologies and their implementation. Topics include the OSI reference model, network protocols, transmission media, and networking hardware and software. Lab Fees: \$24.00; Special Fee: \$17.00

**ITNW 1454 IMPLEMENTING AND SUPPORTING SERVERS (3-2).....WORKFORCE**

Implement, administer, and troubleshoot information systems that incorporate servers in a networked computing environment. Prerequisite: Knowledge of operating systems. Lab Fees: \$24.00; Special Fee: \$50.00

**ITNW 2435 NETWORK TROUBLESHOOTING AND SUPPORT (3-2).....WORKFORCE**

Troubleshoot and support networks with emphasis on solving real world problems in a hands-on environment. Topics include troubleshooting and research techniques, available resources, and network management hard/software. Prerequisite: ITNW 1325 or ITCC 1301. Lab Fee: \$24.00; Special Fee: \$17.00

**ITSC 1409 INTEGRATED SOFTWARE APPLICATIONS I (3-2).....WORKFORCE**

Introduction to business productivity software suites using word processing, spreadsheets, databases, and/or presentation software. Prerequisites: ITSW 1401, ITSW 1407, and POFI 1349, or consent of instructor. Lab Fee: \$24.00; Special Fee: \$17.00

**ITSC 2335 APPLICATION SOFTWARE PROBLEM SOLVING (2-4).....WORKFORCE**

Utilization of appropriate application software to solve advanced problems and generate customized solutions. Prerequisite: Consent of instructor. Lab Fee: \$24.00; Special Fee: \$17.00

**ITSC 2339 PERSONAL COMPUTER HELP DESK SUPPORT (3-0).....WORKFORCE**

Diagnosis and solution of user hardware and software related problems with on-the-job and/or simulated projects. Special Fee: \$17.00

**ITSC 2364 PRACTICUM (OR FIELD EXPERIENCE) - COMPUTER AND INFORMATION SCIENCES, GENERAL (0-21).....WORKFORCE**

Practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student. The guided external experiences may be paid or unpaid. Prerequisites: Eight semester hours of major requirements and consent of instructor. Special Fee: \$12.00

**ITSE 1401 WEB DESIGN TOOLS (3-2).....WORKFORCE**

Designing and publishing Web documents according to World Wide Web Consortium (W3C) standards. Emphasis on optimization of graphics and images and exploration of tools available for creating and editing Web documents. Lab Fee: \$24.00; Special Fee: \$50.00



- ITSE 1402 COMPUTER PROGRAMMING (3-2).....WORKFORCE**  
Introduction to computer programming including design, development, testing, implementation, and documentation. Lab Fee: \$24.00; Special Fee: \$17.00
- ITSE 1450 SYSTEM ANALYSIS AND DESIGN (3-2).....WORKFORCE**  
Introduction to the planning, design, and construction of computer information systems using the systems development life cycle and other appropriate design tools. Prerequisites: COSC 1301 and ITNW 1325; or consent of instructor. Lab Fee: \$24.00; Special Fee: \$50.00
- ITSW 1401 INTRODUCTION TO WORD PROCESSING (3-2).....WORKFORCE**  
An overview of the production of documents, tables, and graphics. Lab Fee: \$24.00; Special Fee: \$17.00
- ITSW 1407 INTRODUCTION TO DATABASE (3-2).....WORKFORCE**  
Introduction to database theory and the practical applications of a database. Lab Fee: \$24.00; Special Fee: \$17.00
- MATH 0111 DEVELOPMENTAL MATHEMATICS NCBO FOR INTERMEDIATE ALGEBRA (1-0).....TRANSFER**  
Topics in mathematics, such as arithmetic operations, basic algebraic concepts and notation, geometry, and real and complex number systems. Prerequisites: Placement test score of 56-62 on the Accuplacer, 215-229 on the THEA, or 2150-2199 on the TAKS; and concurrent enrollment in MATH 0302. Designed to give just-in-time review for Intermediate Algebra students.
- MATH 0302 INTERMEDIATE ALGEBRA (3-1).....TRANSFER**  
A study of relations and functions, inequalities, algebraic expressions and equations (absolute value, polynomial, radical, rational), with a special emphasis on linear and quadratic expressions and equations. Prerequisites: A “C” or better in MATH 0310, or Texas Success Initiative complete in math. Lab Fees: \$24.00; Special Fees: \$27.00
- MATH 0310 DEVELOPMENTAL MATHEMATICS (2-2).....TRANSFER**  
Topics in mathematics such as arithmetic operations, basic algebraic concepts and notation, geometry, and real and complex number systems. May get a “G” grade one time to re-enroll and continue in this course. Prerequisites: This course is designed for students who are not TSI clear in math. Students scoring 56-62 on the Accuplacer may enroll in MATH 0302 concurrently with MATH 0110, a non-course based option for Intermediate Algebra. Lab Fees: \$24.00; Special Fees: \$27.00
- MATH 1314 COLLEGE ALGEBRA (3-0).....TRANSFER**  
In-depth study and applications of polynomial, rational, radical, exponential and logarithmic functions, and systems of equations using matrices. Additional topics such as sequences, series, probability, and conics may be included. Prerequisites: A “C” or better in MATH 0302, or a minimum score as indicated on one of the following tests: THEA 270, Accuplacer 84, TAKS 2400, SAT math section 618, or ACT math section 26. Students who have completed Algebra II or Pre-calculus within one year with at least a “B” may take MATH 1314 if they meet one of the following minimum scores: THEA 230, Accuplacer 63, TAKS 2200, SAT math section 601, or ACT math section 21. Graphing Calculator required. Special Fee: \$2.00
- MATH 1316 PLANE TRIGONOMETRY (3-0).....TRANSFER**  
In-depth study and applications of trigonometry including definitions, identities, inverse functions, solutions of equations, graphing, and solving triangles. Additional topics such as vectors, polar coordinates and parametric equations may be included. Prerequisite: MATH 1314 or MATH 1414. Special Fee: \$2.00
- MATH 1332 CONTEMPORARY MATHEMATICS I (3-0).....TRANSFER**  
Topics may include introductory treatment of sets, logic, number systems, number theory, relations, functions, probability and statistics. Appropriate applications are included. Prerequisite: A “C” or better in MATH 0310 or Texas Success Initiative complete in math. Special Fee: \$2.00
- MATH 1342 ELEMENTARY STATISTICAL METHODS (3-0).....TRANSFER**  
Collection, analysis, presentation and interpretation of data, and probability. Analysis includes descriptive statistics, correlation and regression, confidence intervals and hypothesis testing. Use of appropriate technology is recommended. Prerequisites: MATH 1332; or “C” or better in MATH 0302; or a minimum score as indicated on one the following tests: THEA 270, Accuplacer 84, TAKS 2400, SAT math section 618, or ACT math section 26. Special Fee: \$2.00
- MATH 1350 FUNDAMENTALS OF MATHEMATICS I (3-0).....TRANSFER**  
Concepts of sets, functions, numeration systems, number theory, and properties of the natural numbers, integers, rational, and real number systems with an emphasis on problem solving and critical thinking and the use of manipulatives. Designed for students who seek early childhood through grade 8 teacher certification. Prerequisite: MATH 1314 or MATH 1414 with a “C” or better. Special Fee: \$2.00

- MATH 1351 FUNDAMENTALS OF MATHEMATICS II (3-0).....TRANSFER**  
 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 and the use of manipulatives. Designed for students who seek early childhood through grade 8 teacher certification. Prerequisite: MATH 1350. Special Fee: \$2.00
- MATH 1414 COLLEGE ALGEBRA WITH REVIEW (4-0).....TRANSFER**  
 In-depth study and applications of polynomial, rational, radical, exponential and logarithmic functions, and systems of equations using matrices. Additional topics such as sequences, series, probability, and conics may be included. Prerequisite: A "C" or better in MATH 0302, or a minimum score as indicated on one of the following tests: THEA 270, Accuplacer 84, TAKS 2400, SAT math section 618, or ACT math section 26. Students who have completed Algebra II or Pre-calculus within one year with at least a "B" may take MATH 1414 if they meet one of the following minimum scores: THEA 230, Accuplacer 63, TAKS 2200, SAT math section 501, or ACT math section 21. Graphing calculator required. Special Fee: \$2.00
- MATH 2413 CALCULUS I (4-0).....TRANSFER**  
 Limits and continuity; the Fundamental Theorem of Calculus; definition of the derivative of a function and techniques of differentiation; applications of the derivative to maximizing or minimizing a function; the chain rule, mean value theorem, and rate of change problems; curve sketching; definite and indefinite integration of algebraic, trigonometric, and transcendental functions, with an application to calculation of areas. Prerequisite: MATH 1316 or consent of instructor. Special Fee: \$2.00
- MATH 2414 CALCULUS II (4-0).....TRANSFER**  
 Differentiation and integration of transcendental functions; parametric equations and polar coordinates; techniques of integration; sequences and series; improper integrals. Prerequisite: MATH 2413. Special Fee: \$2.00
- MCHN 1320 PRECISION TOOLS AND MEASUREMENTS (3-1).....WORKFORCE**  
 An introduction to the modern science of dimensional metrology. Emphasis on the identification, selection, and application of various types of precision instruments associated with the machining trade. Practice of basic layout and piece part measurements while using standard measuring tools. Lab Fee: \$24.00; Special Fee: \$50.00
- MCHN 1426 INTRODUCTION TO COMPUTER-AIDED MANUFACTURING (CAM) (3-2).....WORKFORCE**  
 A study of Computer-Aided Manufacturing (CAM) systems. Software is used to develop applications for manufacturing. Emphasis on tool geometry, tool selection, and the tool library. Lab Fee: \$24.00; Special Fee: \$62.00
- MCHN 1438 BASIC MACHINE SHOP I (3-2).....WORKFORCE**  
 An introductory course that assists the student in understanding the machinist occupation in industry. The student begins by using basic machine tools such as the lathe, milling machine, drill press, power saw, and bench grinder. Machine terminology, theory, math, part layout, and bench work using common measuring tools is included. Emphasis is placed on shop safety, housekeeping, and preventative maintenance. Lab Fee: \$24.00; Special Fee: \$62.00
- MCHN 1458 INTERMEDIATE LATHE OPERATIONS (3-2).....WORKFORCE**  
 Continuation of Basic Lathe Operations with emphasis on continued proficiency in lathe operations. Identification and operation of lathe machine tools, including basic tapered form turning and basic threading operations. Prerequisite: MCHN 1438. Lab Fee: \$24.00; Special Fee: 62.00
- MCHN 2366 PRACTICUM (OR FIELD EXPERIENCE) - MACHINE TOOL TECHNOLOGY/MACHINIST (0-21).....WORKFORCE**  
 Practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student. The guided external experiences may be paid or unpaid. Prerequisites: Eight semester hours of major requirements and consent of instructor. Special Fee: \$12.00
- MCHN 2402 INTERMEDIATE MILLING OPERATIONS (3-2).....WORKFORCE**  
 A continuation of Basic Milling Operations with emphasis on continued proficient in mill operation. Identification and operation of milling machines and support tooling including keyseat cutter, staggetooth cutters, rotary table and dividing heads. Prerequisite: MCHN 1438. Lab Fee: \$24.00; Special Fee: \$62.00
- MCHN 2403 FUNDAMENTALS OF COMPUTER NUMERICAL CONTROLLED (CNC) MACHINE CONTROLS (3-2).....WORKFORCE**  
 Programming and operation of Computer Numerically Controlled (CNC) machine shop equipment. Lab Fee: \$24.00; Special Fee: \$62.00

**MCHN 2433 ADVANCED LATHE OPERATIONS (3-2).....WORKFORCE**

A study of advanced lathe operations. Identify and use of special cutting tools and support tooling, such as, form tools, carbide inserts, taper attachments, follower and steady rest. Close tolerance machining required. Prerequisite: MCHN 1458. Lab Fee: \$24.00; Special Fee: \$62.00 programming and operation of Computer Numerically Controlled (CNC) machine shop equipment. Lab Fee: \$24.00; Special Fee: \$62.00

**MCHN 2441 ADVANCED MACHINING I (3-2).....WORKFORCE**

A study of advanced lathe and milling operations. Emphasis on advanced cutting operations of the lathe and milling machines, including the use of special tooling, bench assembly, and materials identification. Prerequisite: MCHN 2444. Lab Fee: \$24.00; Special Fee: \$62.00

**MCHN 2444 COMPUTERIZED NUMERICAL CONTROL**

**PROGRAMMING (3-2).....WORKFORCE**

An introduction to G and M codes (RS274-D) necessary to program Computer Numerical Controlled (CNC) machines. Prerequisite: MCHN 2403. Lab Fee: \$24.00; Special Fee: \$62.00

**MDCA 1302 HUMAN DISEASE/PATHOPHYSIOLOGY (3-0).....WORKFORCE**

A study of anatomy and physiology with emphasis on human pathophysiology, including etiology, prognosis, medical treatment, signs and symptoms of common diseases of all body systems. Prerequisite: HITT 1305. Special Fee: \$12.00

**MRKG 1311 PRINCIPLES OF MARKETING (3-0).....WORKFORCE**

Introduction to the marketing mix functions and processes. Includes identification of consumer and organizational needs and explanation of environmental issues. Special Fee: \$2.00

**MUEN 1151 CHAMBER (SMALL) VOCAL ENSEMBLES (0-4).....TRANSFER**

Vocal ensemble, glee club, madrigals, or small swing choir. Designed for those students interested in participating in a vocal group. Includes the study of various styles of music. Requires public performance. May be repeated once for credit. Lab Fee: \$16.00; Special Fee: \$2.00

**MUEN 1152 CHAMBER (SMALL) VOCAL ENSEMBLES (0-4).....TRANSFER**

Vocal ensemble, glee club, madrigals, or small swing choir. Designed for those students interested in participating in a vocal group. Includes the study of various styles of music. Requires public performance. May be repeated once for credit. Lab Fee: \$16.00; Special Fee: \$2.00

**MUSI 1304 FOUNDATIONS OF MUSIC (3-0).....TRANSFER**

Study of the fundamentals of music for prospective classroom teachers with an introduction to melodic, rhythmic, and harmonic instruments. Emphasis on participation in singing and reading music. Special Fee: \$2.00

**MUSI 1306 MUSIC APPRECIATION (3-0).....TRANSFER**

Understanding music through the study of cultural periods, major composers, and musical elements. Illustrated with audio recordings and live performances. Designed for non-music majors. Special Fee: \$2.00

**MUSIC - APPLIED.....TRANSFER**

Individual instruction in voice or brass, percussion, woodwind, stringed, or keyboard instruments. One-half hour private lesson per week and two hours outside practice per week are awarded one semester hour credit; one hour or two half hour private lessons per week and four hours outside practice per week are awarded two semester hours of credit. Courses may be repeated for credit. Fee for one semester hour of credit - Special Fee: \$162.00. Fee for two semester hours of credit - Special Fee \$302.00.

**Freshman Level:** MUAP 1161 and MUAP 1261 Guitar; MUAP 1169 and MUAP 1269 Piano; MUAP 1181 and 1281 Voice. **Sophomore Level:** MUAP 2161 and MUAP 2261 Guitar; MUAP 2169 and MUAP 2269 Piano; MUAP 2181 and MUAP 2281 Voice. Other applied music courses may be taught depending on requests and instructor availability.

**OSHT 1309 PHYSICAL HAZARDS CONTROL (3-0) .....WORKFORCE**

A study of the common physical hazards in industry and methods of workplace design and redesign to control hazards. Emphasis on the regulation codes and standards associated with the control of physical hazards. Special Fee: \$2.00

**PHYSICAL ACTIVITY COURSES:** Activity courses may be repeated for degree credit.

**PHED 1105 WEIGHT TRAINING AND CONDITIONING (0-3).....TRANSFER**

Fundamentals of weight training as well as evaluation of physical fitness and activities designed to improve the fitness level of the student. Lab Fee: \$5.00; Special Fee: \$2.00

**PHED 1106 PHYSICAL CONDITIONING (0-3).....TRANSFER**

Jogging, weight training, and flexibility exercises designed to be a part of an overall adult fitness program. Development and progression on an individual basis. Regular monitoring of progress throughout the semester. Lab Fee: \$5.00; Special Fee: \$2.00

- PHED 1107 FITNESS WALKING (0-3).....TRANSFER**  
 Exercise program developed for individual needs of students. Emphasis on knowledge and skills necessary for participation in a fitness walking program. Lab Fee: \$5.00; Special Fee: \$2.00
- PHED 1108 VARSITY ATHLETICS (0-3).....TRANSFER**  
 Regular workouts, strategy sessions, weight training, and conditioning for varsity athletic teams. Workouts will be supervised by varsity coaches and scheduled meeting times will be posted in appropriate locations. Lab Fee: \$5.00; Special Fee: \$2.00
- PHED 1109 VARSITY ATHLETICS (0-3).....TRANSFER**  
 Regular workouts, strategy sessions, weight training, and conditioning in either rodeo, baseball or volleyball. Workouts will be supervised by varsity coaches and scheduled meeting times will be posted in appropriate locations. Lab Fee: \$5.00; Special Fee: \$2.00
- PHED 1112 AQUATIC CONDITIONING (0-3).....TRANSFER**  
 Workouts designed to improve cardio-respiratory fitness, muscular strength and toning through pool exercises. Lab Fee: \$5.00
- PHED 1120 SPINNING (0-3)..... TRANSFER**  
 Participation in cardio-respiratory development and muscular toning and strengthening through bicycling exercises. Lab Fee: \$5.00; Special Fee: \$2.00
- PHYSICAL EDUCATION THEORY COURSES**
- PHED 1301 INTRODUCTION TO PHYSICAL FITNESS & SPORT (3-0).....TRANSFER**  
 Orientation to the field of physical fitness and sport. Includes the study and practice of activities and principles that promote physical fitness with emphasis on historical development, philosophical implications, physical fitness, and kinesiology. Special Fee: \$2.00
- PHED 1304 PERSONAL/COMMUNITY HEALTH I (3-0).....TRANSFER**  
 Investigation of the principles and practices in relation to personal and community health. Special Fee: \$2.00
- PHED 1306 FIRST AID (3-0).....TRANSFER**  
 Instruction in and practice of first aid techniques. Students may earn National Safety Council Certificates in First Aid and CPR. Special Fee: \$27.00
- PHED 1308 SPORTS OFFICIATING I (2-2).....TRANSFER**  
 Instruction in rules, interpretation, and mechanics of officiating selected sports. Lab Fee: \$16.00; Special Fee: \$2.00
- PHED 1321 COACHING/SPORTS/ATHLETICS I (3-0).....TRANSFER**  
 Study of the history, theories, philosophies, rules and terminology of competitive sports. Includes coaching techniques. Special Fee: \$2.00
- PHED 1346 DRUG USE & ABUSE (3-0).....TRANSFER**  
 Study of the use and abuse of drugs in today's society. Emphasizes the physiological, sociological, and psychological factors. Special Fee: \$2.00
- PHED 2156 TAPING AND BANDAGING (1-0).....TRANSFER**  
 This course provides the fundamental taping and bandaging techniques used in the prevention and care of athletic related injuries. Liability Insurance: \$22.00; Special Fee: \$12.00
- PHED 2356 CARE AND PREVENTION OF ATHLETIC INJURIES (3-0).....TRANSFER**  
 Prevention and care of athletic injuries with emphasis on qualities of a good athletic trainer, avoiding accidents and injuries, recognizing signs and symptoms of specific sports injuries and conditions, immediate and long-term care of injuries, and administration procedures in athletic training. Prerequisite: PHED 1306. Liability Insurance: \$22.00; Special Fee: \$2.00
- PHRA 1102 PHARMACY LAW(1-0).....WORKFORCE**  
 Overview of federal and state laws governing the practice of pharmacy. The legal and ethical constraints governing pharmacy technician and pharmacist responsibilities in practice settings. Prerequisites: Texas Success Initiative requirement complete in all sections; acceptance into Pharmacy Technician program. Special Fee: \$50.00
- PHRA 1209 PHARMACEUTICAL MATHEMATICS I (1-3).....WORKFORCE**  
 Pharmaceutical mathematics including reading, interpreting, and solving calculation problems encountered in the preparation and distribution of drugs. Prerequisite: Texas Success Initiative requirement complete in all sections. Lab Fee: \$24.00; Special Fee: \$42.00

- PHRA 1243 PHARMACY TECHNICIAN CERTIFICATION REVIEW (2-0).....WORKFORCE**  
 A review of major topics covered on the National Pharmacy Technician Certification examination. Prerequisites: PHRA 1441 and PHRA 1445. Special Fee: \$50.00
- PHRA 1247 PHARMACEUTICAL MATHEMATICS II (1-3).....WORKFORCE**  
 Advanced concepts of Pharmaceutical Mathematics. Prerequisites: PHRA 1209 or concurrent enrollment. Lab Fees: \$24.00; Special Fee: \$42.00
- PHRA 1313 COMMUNITY PHARMACY PRACTICE (2-4).....WORKFORCE**  
 Introduction to the skills necessary to process, prepare, label, and maintain records of prescriptions in a community pharmacy to include customer service, count and pour techniques, prescription calculations, drug selection and preparation, over-the-counter drugs, inventory management and legal parameters. Prerequisites: PHRA 1102, PHRA 1209, and PHRA 1215 or concurrent enrollment. Lab Fee: \$24.00; Special Fee: \$50.00
- PHRA 1441 PHARMACY DRUG THERAPY AND TREATMENT (3-2).....WORKFORCE**  
 Study of therapeutic agents, their classifications, properties, actions, and effects on the human body and their role in the management of disease. Prerequisites: PHRA 1313 and PHRA 1449. Lab Fee: \$24.00; Special Fee: \$50.00
- PHRA 1445 COMPOUNDING STERILE PREPARATIONS AND ASEPTIC TECHNIQUE (2-6).....WORKFORCE**  
 The process of compounding sterile preparations and aseptic technique within legal and regulatory guidelines specified by USP <797> standards. Prerequisites: PHRA 1102, PHRA 1209, and PHRA 1449 or concurrent enrollment in PHRA 1449. Lab Fee: \$24.00; Special Fee: \$50.00
- PHRA 1449 INSTITUTIONAL PHARMACY PRACTICE (3-4).....WORKFORCE**  
 Fundamentals of the diverse rules and practice of pharmacy technicians in an institutional pharmacy setting. In depth coverage of hospital pharmacy organization, work flow and personnel, medical and pharmaceutical terminology, safety techniques, data entry, packaging and labeling operations, pharmaceutical compounding, inpatient drug distribution systems, continuous quality improvement, and inventory control. Prerequisites: PHRA 1102 and PHRA 1209 or concurrent enrollment. Lab Fee: \$24.00; Special Fee: \$50.00
- PHRA 2265 PRACTICUM (OR FIELD EXPERIENCE) - PHARMACY TECHNICIAN/ASSISTANT (0-20).....WORKFORCE**  
 Practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student. Prerequisites: PHRA 1441 and PHRA 1445 or concurrent enrollment. Liability Insurance: \$22.00; Special Fee: \$129.00
- PHYS 1401 COLLEGE PHYSICS I (3-3).....TRANSFER**  
 Fundamental principles of physics, using algebra and trigonometry; the principles and applications of classical mechanics and thermodynamics, including harmonic motion, mechanical waves and sound, physical systems, Newton's Laws of Motion, and gravitation and other fundamental forces; with emphasis on problem solving. Prerequisites: MATH 1314 and MATH 1316. Lab Fee: \$24.00; Special Fee: \$6.00
- PHYS 1402 COLLEGE PHYSICS II (3-3).....TRANSFER**  
 Fundamental principles of physics, using algebra and trigonometry; the principles and applications of electricity and magnetism, including circuits, electrostatics, electromagnetism, waves, sound, light, optics, and modern physics topics; with emphasis on problem solving. Prerequisite: PHYS 1401. Lab Fee: \$24.00; Special Fee: \$6.00
- PHYS 1403 STARS AND GALAXIES (3-3).....TRANSFER**  
 (Replaces PHYS 1412)  
 Study of stars, galaxies, and the universe outside our solar system. Includes a laboratory. Lab Fee: \$24.00; Special Fee: \$6.00
- PHYS 1404 SOLAR SYSTEM (3-3).....TRANSFER**  
 (Replaces PHYS 1411)  
 Study of the sun and its solar system, including its origin. May or may not include a laboratory. Lab Fee: \$24.00; Special Fee: \$6.00
- PHYS 1415 PHYSICAL SCIENCE I (3-3).....TRANSFER**  
 Course designed for non-science majors that surveys topics from physics, chemistry, geology, astronomy, and meteorology. May or may not include a laboratory. Prerequisite: Texas Success Initiative complete in reading. Lab Fee: \$24.00; Special Fee: \$2.00

- POFI 1349 SPREADSHEETS (2-2).....WORKFORCE**  
 Skill development in concepts, procedures, and application of spreadsheets. This course is designed to be repeated multiple times to improve student proficiency. Lab Fee: \$24.00; Special Fee: \$17.00
- POFI 2431 DESKTOP PUBLISHING (3-2).....WORKFORCE**  
 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. This course is designed to be repeated multiple times to improve student proficiency. Prerequisite: ITSW 1401. Lab Fee: \$24.00; Special Fee: \$17.00
- POFM 1164 PRACTICUM (OR FIELD EXPERIENCE) - MEDICAL ADMINISTRATIVE/ EXECUTIVE ASSISTANT AND MEDICAL SECRETARY (0-7).....WORKFORCE**  
 Practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student. The guided external experiences may be paid or unpaid. Prerequisites: Eight semester hours of major requirements and consent of instructor. Must make arrangements prior to enrolling. Liability Insurance: \$22.00 (charged once each academic year); Special Fee: \$12.00
- POFT 1309 ADMINISTRATIVE OFFICE PROCEDURES I (2-2).....WORKFORCE**  
 Study of current office procedures, duties, and responsibilities applicable to an office environment. Prerequisite: POFT 1429 or consent of instructor. Lab Fee: \$24.00; Special Fee: \$12.00
- POFT 1325 BUSINESS MATH USING TECHNOLOGY (2-2).....WORKFORCE**  
 Skill development in business math problem-solving using electronic technology. Lab Fee: \$24.00; Special Fee: \$12.00
- POFT 1349 ADMINISTRATIVE OFFICE PROCEDURES II (2-2).....WORKFORCE**  
*(Formerly POFT 1313)* In-depth coverage of office procedures with emphasis on decision making, goal setting, management theories, and critical thinking. Prerequisites: ITSW 1401 and POFT 1309 or HITT 1311. Lab Fee: \$24.00; Special Fee: \$12.00
- POFT 1364 PRACTICUM (OR FIELD EXPERIENCE) - ADMINISTRATIVE ASSISTANT AND SECRETARIAL SCIENCE, GENERAL (0-21).....WORKFORCE**  
 Practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student. The guided external experiences may be paid or unpaid. Prerequisites: Eight semester hours of major requirements and consent of instructor. Must make arrangements prior to enrolling. Liability Insurance: \$22.00 (charged once each academic year); Special Fee: \$12.00
- POFT 1429 BEGINNING KEYBOARDING (3-2).....WORKFORCE**  
 Skill development keyboarding techniques. Emphasis on development of acceptable speed and accuracy levels and formatting basic documents. Lab Fee: \$24.00; Special Fee: \$17.00
- POFT 2203 SPEED AND ACCURACY BUILDING (1-2).....WORKFORCE**  
 Review, correct, and improve keyboarding techniques for the purpose of increasing speed and improving accuracy. This course is designed to be repeated multiple times to improve student proficiency. Prerequisite: POFT 1429. Lab Fee: \$24.00; Special Fee: \$17.00
- POFT 2312 BUSINESS CORRESPONDENCE AND COMMUNICATIONS (2-2).....WORKFORCE**  
*(Formerly POFT 2212)* Development of writing and presentation skills to produce effective business communications. Prerequisites: COSC 1301 and POFT 1429. Lab Fee: \$24.00; Special Fee: \$12.00
- POFT 2401 INTERMEDIATE KEYBOARDING (3-2).....WORKFORCE**  
 A continuation of keyboarding skills emphasizing acceptable speed and accuracy levels and formatting documents. Prerequisite: POFT 1429 or consent of instructor. For students typing less than 40 WPM. Lab Fee: \$24.00; Special Fee: \$17.00
- PSYC 2301 GENERAL PSYCHOLOGY (3-0).....TRANSFER**  
 General Psychology is a survey of the major psychological topics, theories and approaches to the scientific study of behavior and mental processes. Prerequisite: Texas Success Initiative complete in reading and writing. Special Fee: \$2.00
- PSYC 2314 LIFESPAN GROWTH & DEVELOPMENT (3-0).....TRANSFER**  
 Life-Span Growth and Development is a study of social, emotional, cognitive and physical factors and influences of a developing human from conception to death. Prerequisite: PSYC 2301. Special Fee: \$2.00
- RBTC 1405 ROBOTIC FUNDAMENTALS (3-2).....WORKFORCE**  
 An introduction to flexible automation. Topics include installation, repair maintenance, and development of flexible robotic manufacturing systems. Lab Fee: \$24.00; Special Fee: \$52.00

- READ 0300 READING I (3-0).....DEVELOPMENTAL**  
 Emphasis on improved reading comprehension through development of vocabulary and practice in identification of main idea, supporting detail, and inference. Designed for the student whose independent reading level is below high school level. A unit on elementary study skills included. Course designed for students who score 0-199 on the reading section of THEA or 0-60 on the reading section of Accuplacer. Special Fee: \$17.00
- READ 0301 READING II (3-0).....DEVELOPMENTAL**  
 Emphasis on improved reading comprehension through development of vocabulary and practice in identification of main idea, supporting detail, and inference. Also study of writer's purpose, point of view, intent, organizational patterns, and critical reading. Designed for the student whose overall independent reading level is at the high school level. A unit on intermediate study skills included. Prerequisite: Score of 200-219 on the reading section of the THEA or 61-69 on the reading section of Accuplacer, or C or better in READ 0300. Special Fee: \$17.00
- READ 0302 ADVANCED READING (3-0).....DEVELOPMENTAL**  
 Emphasis on improved reading comprehension through development of vocabulary and reading speed. Practice in identification of main idea, supporting detail, and inference. Also study of critical reading techniques. Designed for the student who needs further development of college level reading skills. A unit of advanced study skills included. Prerequisite: Score of 220-229 on the reading section of THEA or 70-77 on the reading section of Accuplacer, or C or better in READ 0301. Special Fee: \$17.00
- RNSG 1105 NURSING SKILLS I (0-4).....WORKFORCE**  
 Study of the concepts and principles necessary to perform basic nursing skills for the adult patient; and demonstrate competence in the performance of nursing procedures. Content includes knowledge, judgment, skills, and professional values within a legal/ethical framework. This course lends itself to a blocked approach. Prerequisites: Texas Success Initiative complete in reading, writing and math, and admission to nursing program; concurrent enrollment in RNSG 1209 or consent of Director of Nursing. Lab Fee: \$24.00; Special Fee: \$122.00
- RNSG 1108 DOSAGE CALCULATIONS FOR NURSING (1-0).....WORKFORCE**  
 Read, interpret, and solve dosage calculation problems. This course lends itself to either a blocked or integrated approach. Special Fee: \$38.00
- RNSG 1110 INTRODUCTION TO COMMUNITY-BASED NURSING (1-0).....WORKFORCE**  
 Overview of the delivery of nursing care in a variety of community-based settings; application of systematic problem solving processes and critical thinking skills, focusing on the examination of concepts and theories relevant to community-based nursing; and development of judgment, skill, and professional values within a legal/ethical framework. Prerequisites: RNSG 1441, concurrently enrolled in RNSG 1443 and RNSG 2360. Special Fee: \$113.00
- RNSG 1115 HEALTH ASSESSMENT (0-3).....WORKFORCE**  
 Development of skills and techniques required for a comprehensive health assessment within a legal/ethical framework. This course lends itself to a blocked approach. Prerequisites: Texas Success Initiative complete in reading, writing and math; admission to ADN program or licensed nurse; or consent of the Director of Nursing. Lab Fee: \$24.00; Special Fee: \$97.00
- RNSG 1166 PRACTICUM (OR FIELD EXPERIENCE) - NURSING - REGISTERED NURSE TRAINING (INTRODUCTION TO NURSING) (0-8).....WORKFORCE**  
 Practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student. The guided external experiences may be paid or unpaid. Prerequisites: Concurrent enrollment in RNSG 1105 and RNSG 1209 or consent of Director of Nursing. Student may be required to travel to fulfill course requirements. Special Fee: \$22.00
- RNSG 1208 DOSAGE CALCULATIONS FOR NURSING (2-1).....WORKFORCE**  
 Read, interpret, and solve dosage calculation problems. This course lends itself to either a blocked or integrated approach. Lab Fee: \$24.00; Special Fee: \$22.00
- RNSG 1209 INTRODUCTION TO NURSING (2-2).....WORKFORCE**  
 Overview of nursing and the role of the professional nurse as a provider in patient-centered care, patient safety advocate, member of the health care team, and member of profession. Content includes knowledge, judgment, skills and professional values with a legal/ethical framework. This course lends itself to a blocked approach. Prerequisites: Texas Success Initiative complete in reading, writing, and math, and concurrent enrollment in RNSG 1166. Liability Insurance: \$22.00; Lab Fee: \$24.00; Special Fee: \$22.00

- RNSG 1246 LEGAL AND ETHICAL ISSUES IN NURSING (2-0).....WORKFORCE**  
 Study of the laws and regulations related to the provision of safe and effective professional nursing care. Content includes confidentiality, the Nursing Practice Act, professional boundaries, ethics, and health care legislation. Prerequisites: Texas Success Initiative complete in reading, writing and math. BIOL 2401, BIOL 2402, BIOL 2421, PSYC 2301, and MATH 1314, MATH 1414, or MATH 1332 or consent of Director of Nursing. Special Fee: \$136.00
- RNSG 1263 CLINICAL - NURSING - REGISTERED NURSE TRAINING (Common Concepts) (0-12).....WORKFORCE**  
 A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional. Clinical education is an unpaid learning experience. Prerequisite: Concurrent enrollment in RNSG 1441. Student may be required to travel to fulfill course requirements. Special Fee: \$22.00
- RNSG 1301 PHARMACOLOGY (3-1).....WORKFORCE**  
 Introduction to the science of pharmacology with emphasis on the actions, interactions, adverse effects, and nursing implications of drug classifications. Content includes the roles and responsibilities of the nurse in safe administration of medications within a legal/ethical framework. This course lends itself to either a blocked or integrated approach. Prerequisites: Texas Success Initiative complete in reading, writing and math; admission to nursing program or licensed nurse; concurrent enrollment in RNSG 1209 or consent of Director of Nursing. Lab Fee: \$24.00; Special Fee: \$22.00
- RNSG 1311 NURSING PATHOPHYSIOLOGY (3-0).....WORKFORCE**  
 Basic principles of pathophysiology emphasizing nursing applications. Content includes principles of homeostasis related to body systems. This course lends itself to either a blocked or integrated approach. Prerequisites: Texas Success Initiative complete in reading and writing; BIOL 2401, BIOL 2402 (both with a grade of “C” or better) or consent of Director of Nursing. Special Fee: \$131.00
- RNSG 1327 TRANSITION FROM VOCATIONAL TO PROFESSIONAL NURSING (2-4).....WORKFORCE**  
 Content includes health promotion, expanded assessment, analysis of data, critical thinking skills and systematic problem solving process, pharmacology, interdisciplinary teamwork, communication, and applicable competencies in knowledge, judgment, skills, and professional values within a legal/ethical framework throughout the life span. This course lends itself to either a blocked or integrated approach. Prerequisites: BIOL 2401, BIOL 2402, BIOL 1322, BIOL 2421, PSYC 2301, and MATH 1314, MATH 1414, or MATH 1332 or consent of Director of Nursing. Lab Fee: \$24.00; Special Fee: \$158.00
- RNSG 1393 SPECIAL TOPICS IN NURSING - REGISTERED NURSE TRAINING (3-0)...WORKFORCE**  
 Involves a theoretical review of skills and knowledge relevant to the professional development of the student. Prerequisite: Successful completion of a professional nursing program. Special Fee: \$12.00
- RNSG 1412 NURSING CARE OF THE CHILDBEARING AND CHILDREARING FAMILY (4-0).....WORKFORCE**  
 Study of the concepts related to the provision of nursing care for childbearing and childrearing families; application of systematic problem-solving processes and critical thinking skills, including a focus on the childbearing family during the perinatal periods and the childbearing family from birth to adolescence; and competency in knowledge, judgment, skill, and professional values within a legal/ethical framework. This course lends itself to a blocked approach. Prerequisites: RNSG 1327 and RNSG 1443. Special Fee: \$133.00
- RNSG 1441 COMMON CONCEPTS OF ADULT HEALTH (4-0).....WORKFORCE**  
 Basic integration of the role of the professional nurse as a provider of patient-centered care, patient safety advocate, member of health care team, and member of the profession. Study of the common concepts of caring for adult patients and families with medical-surgical health care needs related to body systems, emphasizing knowledge, judgment, skills, and professional values within a legal/ethical framework. This course lends itself to a blocked approach. Prerequisites: Admission to the ADN program, BIOL 1322, MATH 1314, MATH 1414, or MATH 1332, PSYC 2301, RNSG 1105, RNSG 1115, RNSG 1166, RNSG 1209, RNSG 1246, and concurrent enrollment in RNSG 1263. Special Fee: \$58.00



**RNSG 1443 COMPLEX CONCEPTS OF ADULT HEALTH (4-0).....WORKFORCE**

Integration of previous knowledge and skills related to common adult health needs into the continued development of the professional nurse as a provider of patient-centered care, patient safety advocate, member of health care team, and member of a profession in the care of adult patients and families with complex medical-surgical health care needs associated with body systems. Emphasis on knowledge, judgments, skills, and professional values within a legal/ethical framework. This course lends itself to a blocked approach. Prerequisites: RNSG 1441, RNSG 1263, and RNSG 1301 or RNSG 1327 and concurrent enrollment in RNSG 2360. Liability Insurance: \$22.00; Special Fee: \$133.00

**RNSG 2161 CLINICAL - NURSING - REGISTERED NURSE TRAINING (MENTAL HEALTH) (0-6).....WORKFORCE**

A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional. Clinical education is an unpaid learning experience. Prerequisite: Concurrent enrollment in RNSG 2213. Student may be required to travel to fulfill course requirements. Special Fee: \$109.00

**RNSG 2162 CLINICAL - NURSING - REGISTERED NURSE TRAINING (COMMUNITY) (0-3).....WORKFORCE**

A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional. Clinical education is an unpaid learning experience. Prerequisite: Concurrently enrolled in RNSG 1110. Student may be required to travel to fulfill course requirements. Special Fee: \$144.00

**RNSG 2166 PRACTICUM (OR FIELD EXPERIENCE) - NURSING - REGISTERED NURSE TRAINING (FAMILY) (0-8).....WORKFORCE**

A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional. Clinical education is an unpaid learning experience. Prerequisite: Concurrent enrollment in RNSG 1412. Student may be required to travel to fulfill course requirements. Special Fee: \$99.00

**RNSG 2213 MENTAL HEALTH NURSING (2-0).....WORKFORCE**

Principles and concepts of mental health, psychopathology, and treatment modalities related to the nursing care of patients and their families. This course lends itself to a blocked approach. Prerequisites: RNSG 1327, RNSG 1443, and RNSG 1441. Special Fee: \$133.00

**RNSG 2360 CLINICAL - NURSING - REGISTERED NURSE TRAINING (COMPLEX CONCEPTS) (0-12).....WORKFORCE**

*(Formerly RNSG 2460)* A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional. Clinical education is an unpaid learning experience. Prerequisite: Concurrent enrollment in RNSG 1443. Student may be required to travel to fulfill course requirements. Special Fee: \$99.00

**SOCI 1301 INTRODUCTORY SOCIOLOGY (3-0).....TRANSFER**

The scientific study of human society, including ways in which groups, social institutions, and individuals affect each other. Causes of social stability and social change are explored through the application of various theoretical perspectives, key concepts, and related research methods of sociology. Analysis of social issues in their institutional context may include topics such as social stratification, gender, race/ethnicity, and deviance. Prerequisite: Texas Success Initiative complete in reading and writing. Special Fee: \$2.00

**SPAN 1411 BEGINNING SPANISH I (3-2).....TRANSFER**

Basic Spanish language skills in listening, speaking, reading, and writing within a cultural framework. Students will acquire the vocabulary and grammatical structures necessary to communicate and comprehend at the beginner level. Lab Fee: \$24.00; Special Fee: \$12.00

**SPAN 1412 BEGINNING SPANISH II (3-2).....TRANSFER**

Continued development of basic Spanish language skills in listening, speaking, reading, and writing within a cultural framework. Students acquire the vocabulary and grammatical structures necessary to communicate and comprehend at the high beginner to low intermediate level. Prerequisite: SPAN 1411. Lab Fee: \$24.00; Special Fee: \$12.00

**SPAN 2311 INTERMEDIATE SPANISH I (3-0).....TRANSFER**

The consolidation of skills acquired at the introductory level. Further development of proficiency in listening, speaking, reading and writing. Emphasis on comprehension, appreciation, and interpretation of the cultures of the Spanish-speaking world. Prerequisite: SPAN 1412. Special Fee: \$12.00

- SPAN 2312 INTERMEDIATE SPANISH II (3-0).....TRANSFER**  
Continuation of SPAN 2311. The consolidation of skills acquired at the introductory level. Further development of proficiency in listening, speaking, reading and writing. Emphasis on comprehension, appreciation, and interpretation of the cultures of the Spanish-speaking world. Prerequisite: SPAN 2311. Special Fee: \$12.00
- SPCH 1315 PUBLIC SPEAKING (3-0).....TRANSFER**  
Application of communication theory and practice to the public speaking context, with emphasis on audience analysis, speaker delivery, ethics of communication, cultural diversity, and speech organizational techniques to develop students' speaking abilities, as well as ability to effectively evaluate oral presentations. Special Fee: \$2.00
- SPCH 1342 VOICE AND DICTION (3-0).....TRANSFER**  
Physiology and mechanics of effective voice production with practice in articulation, pronunciation, and enunciation. Special Fee: \$2.00
- SRGT 1160 CLINICAL - SURGICAL TECHNOLOGY/TECHNOLOGIST (0-5).....WORKFORCE**  
A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional. Clinical education is an unpaid learning experience. Prerequisites: SRGT 1405. Students may be required to travel to fulfill course requirements. Liability Insurance \$22.00; Special Fee: \$2.00
- SRGT 1405 INTRODUCTION TO SURGICAL TECHNOLOGY (3-2).....WORKFORCE**  
Orientation to surgical technology theory, surgical pharmacology and anesthesia, technological sciences, and patient care concepts. Prerequisites: Must be accepted and enrolled in the Surgical Technology Program. Lab Fee: \$24.00; Special Fee: \$50.00
- SRGT 1409 FUNDAMENTALS OF PERIOPERATIVE CONCEPTS AND TECHNIQUES (2-6).....WORKFORCE**  
In-depth coverage of perioperative concepts such as aseptic principles and practices, infectious processes, wound healing, and creation and maintenance of the sterile field. Prerequisite: SRGT 1405. Lab Fee: \$24.00; Special Fee: \$50.00
- SRGT 1441 SURGICAL PROCEDURES I (2-4).....WORKFORCE**  
Introduction to surgical procedures and related pathologies. With emphasis on surgical procedures related to general, obstetrics/gynecology, genitourinary, and otorhinolaryngology and orthopedic surgical specialties incorporating instruments, equipment, and supplies. Prerequisite: SRGT 1405, SRGT 1409, and SRGT 1160. Lab Fee: \$24.00; Special Fee: \$50.00
- SRGT 1442 SURGICAL PROCEDURES II (2-4).....WORKFORCE**  
Introduction to surgical procedures and related pathologies with emphasis on surgical procedures related to thoracic, peripheral vascular, plastic/reconstructive, ophthalmology, cardiac, and neurological surgical specialties incorporating instruments, equipment, and supplies. Prerequisite: SRGT 1441. Lab Fee: \$24.00; Special Fee: \$50.00
- SRGT 1560 CLINICAL - SURGICAL TECHNOLOGY/TECHNOLOGIST (0-30).....WORKFORCE**  
A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional. Clinical education is an unpaid learning experience. Prerequisites: SRGT 1160. Liability Insurance: \$22.00 (if not previously paid in current year); Special Fee: \$2.00
- SRGT 2660 CLINICAL - SURGICAL TECHNOLOGY/TECHNOLOGIST (0-24).....WORKFORCE**  
A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional. Clinical education is an unpaid learning experience. Prerequisites: SRGT 1160 and SRGT 1560. Liability Insurance: \$22.00 (if not previously paid in current year); Special Fee: \$282.00 (for certification test)
- TECA 1311 EDUCATING YOUNG CHILDREN (2-2).....TRANSFER**  
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; course content must be aligned as applicable with State Board for Educator Certification Pedagogy and Professional Responsibilities standards; requires students to participate in field experiences with children from infancy through age 12 in a variety of settings with varied and diverse populations; course includes a minimum of 16 hours of field experiences. Lab Fee: \$16.00; Special Fee: \$2.00
- TECA 1354 CHILD GROWTH AND DEVELOPMENT (3-0).....TRANSFER**  
A study of the physical, emotional, social, and cognitive factors impacting growth and development of children through adolescence. Special Fee: \$18.00

- VNSG 1115 DISEASE CONTROL AND PREVENTION (1-0).....WORKFORCE**  
 Study of the general principles of prevention of illness and disease, basic microbiology, and the maintenance of aseptic conditions. Special Fee: \$2.00
- VNSG 1122 VOCATIONAL NURSING CONCEPTS (1-0).....WORKFORCE**  
 Introduction to the nursing profession and its responsibilities. Includes legal and ethical issues in nursing practice. Concepts related to the physical, emotional, and psychosocial self-care of the learner/professional. Prerequisite: Consent of instructor. Special Fee: \$2.00
- VNSG 1126 GERONTOLOGY (1-0).....WORKFORCE**  
 Overview of the physical, psychosocial, and cultural aspects of the aging process. Addresses disease processes of aging. Exploration of perceptions toward care of the older adult. Special Fee: \$2.00
- VNSG 1133 GROWTH AND DEVELOPMENT (1-0).....WORKFORCE**  
 Study of the basic aspects of growth and development throughout the life span. Focus on growth and development of the individual's body, mind, and personality as influenced by the environment. Special Fee: \$2.00
- VNSG 1161 CLINICAL – LICENSED VOCATIONAL NURSE (LVN) TRAINING (0-6).....WORKFORCE**  
 A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional. Clinical education is an unpaid learning experience. Student may be required to travel to fulfill course requirements. Special Fee: \$96.00
- VNSG 1162 CLINICAL – LICENSED VOCATIONAL NURSE (LVN) TRAINING (0-6).....WORKFORCE**  
 A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional. Clinical education is an unpaid learning experience. Prerequisites: VNSG 1161 and VNSG 1423. Student may be required to travel to fulfill course requirements. Liability Insurance: \$22.00 (Charged once per academic year); Special Fee: \$96.00
- VNSG 1163 CLINICAL - LICENSED VOCATIONAL NURSE (LVN) TRAINING (0-6).....WORKFORCE**  
 A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional. Clinical education is an unpaid learning experience. Prerequisite: VNSG 1423. Student may be required to travel to fulfill course requirements. Liability Insurance: \$22.00 (Charged once per academic year); Special Fee: \$96.00
- VNSG 1201 MENTAL HEALTH AND MENTAL ILLNESS (2-0).....WORKFORCE**  
 Personality development, human needs, common mental mechanisms, and factors influencing mental health and mental illness. Includes common mental disorders and related therapy. Special Fee: \$2.00
- VNSG 1216 NUTRITION (2-1).....WORKFORCE**  
 Introduction to nutrients and the role of diet therapy in growth and development and in the maintenance of health. Special Fee: \$2.00
- VNSG 1227 ESSENTIALS OF MEDICATION ADMINISTRATION (1-4).....WORKFORCE**  
 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. Special Fee: \$26.00.
- VNSG 1234 PEDIATRICS (2-1).....WORKFORCE**  
 Study of the care of the pediatric patient and family during health and disease. Emphasis on growth and development needs utilizing the nursing process. Special Fee: \$2.00
- VNSG 1263 CLINICAL - LICENSED VOCATIONAL NURSE (LVN) TRAINING (0-12).....WORKFORCE**  
 A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional. Clinical education is an unpaid learning experience. Student may be required to travel to fulfill course requirements. Liability Insurance: \$22.00 (Charged once per academic year); Special Fee: \$96.00
- VNSG 1320 ANATOMY AND PHYSIOLOGY FOR ALLIED HEALTH (3-0).....WORKFORCE**  
 Study of the structure (anatomy) and function (physiology) of the human body, including the neuroendocrine, integumentary, musculoskeletal, digestive, urinary, reproductive, respiratory, and circulatory systems. Prerequisite: Consent of instructor. Special Fee: \$2.00
- VNSG 1329 MEDICAL-SURGICAL NURSING I (3-1).....WORKFORCE**  
 Application of the nursing process to the care of adult patients experiencing medical-surgical conditions along the health-illness continuum in a variety of health-care settings. Special Fee: \$26.00

- VNSG 1330 MATERNAL-NEONATAL NURSING (3-1).....WORKFORCE**  
 A study of the biological, psychological, and sociological concepts applicable to the basic needs of the family including childbearing and neonatal care. Utilization of the nursing process in the assessment and management of the childbearing family. Topics include physiological changes related to pregnancy, fetal development, and nursing care of the family during labor and delivery and the puerperium. Special Fee: \$26.00
- VNSG 1331 PHARMACOLOGY (2-2).....WORKFORCE**  
 Fundamentals of medications and their diagnostic, therapeutic, and curative effects. Includes nursing interventions utilizing the nursing process. Special Fee: \$26.00
- VNSG 1332 MEDICAL-SURGICAL NURSING II (3-1).....WORKFORCE**  
 Continuation of Medical-Surgical Nursing I with application of the nursing process to the care of adult patient experiencing medical-surgical conditions along the health-illness continuum in a variety of health care settings. Special Fee: \$26.00
- VNSG 1360 CLINICAL - LICENSED VOCATIONAL NURSE (LVN) TRAINING (0-18)....WORKFORCE**  
 A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional. Clinical education is an unpaid learning experience. Student may be required to travel to fulfill course requirements. Special Fee: \$76.00
- VNSG 1362 CLINICAL - LICENSED VOCATIONAL NURSE (LVN) TRAINING (0-18).....WORKFORCE**  
 A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional. Clinical education is an unpaid learning experience. Student may be required to travel to fulfill course requirements. Special Fee: \$76.00
- VNSG 1363 CLINICAL - LICENSED VOCATIONAL NURSE (LVN) TRAINING (0-18)....WORKFORCE**  
 A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional. Clinical education is an unpaid learning experience. Student may be required to travel to fulfill course requirements. Liability Insurance: \$22.00; Special Fee: \$76.00
- VNSG 1423 BASIC NURSING SKILLS (3-4).....WORKFORCE**  
 Mastery of basic nursing skills and competencies for a variety of health care settings using the nursing process as the foundation for all nursing interventions. Lab Fee: \$24.00; Special Fee: \$26.00
- VNSG 1460 CLINICAL - LICENSED VOCATIONAL NURSE (LVN) TRAINING (0-24).....WORKFORCE**  
 A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional. Clinical education is an unpaid learning experience. Student may be required to travel to fulfill course requirements. Liability Insurance: \$22.00 (Charged once per academic year); Special Fee: \$76.00
- VNSG 2431 ADVANCED NURSING SKILLS (3-4).....WORKFORCE**  
 Mastery of advanced level nursing skills and competencies in a variety of health care settings utilizing the nursing process as a problem-solving tool. Lab Fee: \$24.00; Special Fee: \$26.00
- WLDG 1327 WELDING CODES (2-2).....WORKFORCE**  
 An in-depth study of welding codes and their development in accordance with structural standards, welding processes, destructive and nondestructive test methods. Prerequisite: WLDG 2413. Lab Fee: \$24.00; Special Fee: \$126.00
- WLDG 1337 INTRODUCTION TO WELDING METALLURGY (2-3).....WORKFORCE**  
 A study of ferrous and nonferrous metal from the ore to the finished product. Emphasis on metal alloys, heat treating, hard surfacing, welding techniques, forging, foundry processes, and mechanical properties of metal including hardness, machinability, and ductility. Lab Fee: \$24.00; Special Fee: \$126.00
- WLDG 1413 INTRODUCTION TO BLUEPRINT READING FOR WELDERS (4-0).....WORKFORCE**  
 A study of industrial blueprint. Emphasis placed on terminology, symbols, graphic description, and welding processes. Includes systems of measurement and industry standards. Also includes interpretation of plans and drawings used by industry to facilitate field application and production. Special Fee: \$2.00
- WLDG 1417 INTRODUCTION TO LAYOUT AND FABRICATION (2-4).....WORKFORCE**  
 A fundamental course in layout and fabrication related to the welding industry. Major emphasis on structural shapes and use in construction. Prerequisites: WLDG 1413, WLDG 1428, WLDG 1430, and WLDG 2413. Lab Fee: \$24.00; Special Fee: \$126.00

**WLDG 1428 INTRODUCTION TO SHIELDED METAL**

**ARC WELDING (SMAW) (2-6).....WORKFORCE**

An introduction to shielded metal arc welding process. Emphasis placed on power sources, electrode selection, oxy-fuel cutting, and various joint designs. Instruction provided in SMAW fillet welds in various positions. Lab Fee: \$24.00; Special Fee: \$126.00

**WLDG 1430 INTRODUCTION TO GAS METAL ARC WELDING (GMAW) (2-6).....WORKFORCE**

A study of the principles of gas metal arc welding; setup and use of GMAW equipment, and safe use of tools/equipment. Instruction in various joint designs. Lab Fee: \$24.00; Special Fee: \$126.00

**WLDG 1434 INTRODUCTION TO GAS TUNGSTEN ARC (GTAW) WELDING (2-6).....WORKFORCE**

An introduction to the principles of gas tungsten arc welding (GTAW), setup/use of GTAW equipment, and safe use of tools and equipment. Welding instruction in various positions on joint designs. Lab Fee: \$24.00; Special Fee: \$126.00

**WLDG 1435 INTRODUCTION TO PIPE WELDING (2-6).....WORKFORCE**

An introduction to welding of pipe using the shielded metal arc welding process, including electrode selection, equipment setup, and safe shop practices. Emphasis on weld positions 1G and 2G using various electrodes. Prerequisite: WLDG 1428. Lab Fee: \$24.00; Special Fee: \$126.00

**WLDG 1457 INTERMEDIATE SHIELDED METAL ARC WELDING (SMAW) (2-4).....WORKFORCE**

A study of the production of various fillets and groove welds. Preparation of specimens for testing in all test positions. Lab Fee: \$24.00; Special Fee: \$126.00

**WLDG 2380, 2381 COOPERATIVE EDUCATION - WELDING**

**TECHNOLOGY/WELDER (1-20).....WORKFORCE**

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. The guided external experiences may be paid or unpaid. Prerequisites: Eight hours of major requirements and consent of instructor.

**WLDG 2413 INTERMEDIATE WELDING USING MULTIPLE PROCESSES (2-6).....WORKFORCE**

Instruction using layout tools and blueprint reading with demonstration and guided practices with some of the following welding processes: oxy-fuel gas cutting and welding, shielded metal arc welding (SMAW), gas metal arc welding (GMAW), flux-core arc welding (FCAW), gas tungsten arc welding (GTAW), or any other approved welding process. Prerequisite: WLDG 1434. Lab Fee: \$24.00; Special Fee: \$126.00

**WLDG 2453 ADVANCED PIPE WELDING (2-6).....WORKFORCE**

Advanced topics involving welding of pipe using the shielded metal arc welding process. Topics include electrode selection, equipment setup, and safe shop practices. Emphasis on weld positions 5G and 6G using various electrodes. Prerequisite: WLDG 1435. Lab Fee: \$24.00; Special Fee: \$126.00