Most of the courses listed in this section are taught at Panola College at some time during the academic year. Some of these courses are taught during the fall semester only, while others are taught in the spring semester only. The student should consult the Schedule of Classes online at http://www.panola.edu prior to each semester or summer session to determine specific course offerings for a given enrollment period. The College reserves the right to withdraw any course from the schedule if enrollment figures do not make the presentation of the class economically or educationally feasible.

This catalog features the courses numbered in the Texas Common Course Numbering System (TCCN) and Workforce Education Course Manual (WECM). By using the TCCN and WECM, Panola College simplified the transfer process for students by making transfer evaluation at the receiving school more standardized. Individuals who took courses prior to the initiation of this system, may, if needed, consult the Admissions/Records Office for the number of the equivalent course.

The course descriptions which follow may indicate prerequisites and co-requisites. A prerequisite is a course that must be satisfactorily completed before enrollment in a course. A co-requisite for a course should be taken before, but may be taken at the same time as another course. Students who fail to meet these department requirements may find themselves unable to perform successfully in a course for which they have not met the prerequisites. Prerequisites tell the student what skills and/or knowledge he or she must have to succeed in the course. If the student feels that he or she is qualified and wants to avoid a prerequisite, the student or high school counselor (in the case of dual credit students) must obtain an exception from the Vice President of Instruction.

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ACCT 2301
Principles of Accounting I (Financial)
This course is an introduction to the fundamental concepts of financial accounting as prescribed by U.S. generally accepted accounting principles (GAAP) as applied to transactions and events that affect business organizations. Students will examine the procedures and systems to accumulate, analyze, measure, and record financial transactions. Students will use recorded financial information to prepare a balance sheet, income statement, statement of cash flows, and statement of shareholders’ equity to communicate the business entity’s results of operations and financial position to users of financial information who are external to the company. Students will study the nature of assets, liabilities, and owners’ equity while learning to use reported financial information for purposes of making decisions about the company. Students will be exposed to International Financial Reporting Standards (IFRS).
Lecture hrs = 2, lab hrs = 4
Lab fee

ACCT 2302
Principles of Accounting II (Managerial)
This course is an introduction to the fundamental concepts of managerial accounting appropriate for all organizations. Students will study information from the entity’s accounting system relevant to decisions made by internal managers, as distinguished from information relevant to users who are external to the company. The emphasis is on the identification and assignment of product costs, operational budgeting and planning, cost control, and management decision making. Topics include product costing methodologies, cost behavior, operational and capital budgeting, and performance evaluation.
Prerequisite: ACCT 2301
Lecture hrs = 2, lab hrs = 4
Lab fee

ACNT 1303
Intro to Accounting I
A study of analyzing, classifying and recording business transactions in a manual and in a computerized environment. Emphasis is placed on understanding the complete accounting cycle and preparing financial statements, bank reconciliations, and payroll. The student will define accounting terminology; analyze and record business transactions in a manual and in a computerized environment; complete the accounting cycle; prepare financial statements; and apply accounting concepts related to cash and payroll.
Lecture hrs = 2, lab hrs = 4
Lab fee

ACNT 1304
Intro to Accounting II
A study of accounting for merchandising, notes payable, notes receivable, valuation of receivables and equipment and valuation of inventories in a manual and in a computerized environment. The student will define related accounting terminology; analyze and record business transactions for a merchandising operation in a manual and computerized environment; calculate interest and apply valuation methods for receivables and payables; and utilize various inventory and depreciation valuation methods.
Prerequisite: ACNT 1303
Lecture hrs = 2, lab hrs = 4
Lab fee

AGAH 2313
Principles of Feeds and Feeding
Study of the role and application of feed nutrients and additives. Topics include comparative aspects of digestion, absorption, and metabolism of nutrients. Emphasis on identification of nutrient requirements and formulation of dietary feeding regimens.
Lecture hrs = 2, lab hrs = 2

AGCR 2341
Forage & Pasture Management
Study of the production and management of forage crops and pastures including establishment, fertilization, weed control, grazing systems, hay, seed production, and harvesting.
Lecture hrs = 2, lab hrs = 3

AGCR 2305
Entomology
Study of the morphology, physiology, and classification of the common insect orders and related arthropods with emphasis on species of economic or biological importance. Emphasis on integrated pest management concepts and proper use of pesticides.
Lecture hrs = 3; lab hrs = 0

AGCR 2318
Soil Science
Introduction to the physical, chemical, and biological properties of soils. Topics include the relationship between crops and soils, conservation of soil and water resources, and the economic use of fertilizer.
Lecture hrs = 2, lab hrs = 3

AGME 1170
Ranch and Land Management Construction Skills
Study and application of skills used in ranch and land management including arc welding, oxyacetylene cutting and welding, drawing and planning projects, tool maintenance, metal working, woodworking, plumbing, and concrete.
Lecture hrs = 0; lab hrs = 224

AGMG 2301
Livestock Business Management
Instruction in contracts, leases, laws and regulations, estate planning, and applications of personnel and management principles.
Lecture hrs = 3; lab hrs = 0

AGRI 1307
Agronomy
Principles and practices in the development, production, and management of field crops including growth and development, climate, plant requirements, pest management, and production methods.
Lecture hrs = 2; lab hrs = 2

AGRI 1325
Marketing of Agricultural Products
Essential marketing functions in the movement of agricultural commodities and products from producer to consumer.
Lecture hrs = 3; lab hrs = 0
AGRI 1329
Principles of Food Science
Biological and scientific aspects of modern industrial food supply systems. Food classification, modern processing, and quality control.
Lecture hrs = 3; lab hrs = 0

AGRI 1449
Introductory Animal Science
Scientific animal production and the importance of livestock and meat industries. Selection, reproduction, nutrition, management, and marketing of livestock.
Lecture hrs = 3; lab hrs = 1

AGRI 2301
Agricultural Power Units
Fundamentals of internal combustion engines: gasoline, diesel, and liquefied petroleum. Maintenance and adjustments of the electrical, ignition, fuel, lubricating, and cooling systems of agricultural power machinery.
Lecture hrs = 3; lab hrs = 3

AGRI 2317
Introduction to Agricultural Economics
Fundamental economic principles and their application in the agricultural industry.
Lecture hrs = 3; lab hrs = 0

AGRI 2330
Wildlife Conservation & Management
Principles and practices used in the production and improvement of wildlife resources. Aesthetic, ecological and recreational uses of public and private lands.
Lecture hrs = 3; lab hrs = 0

ARTS 1301
Art Appreciation
A general introduction to the visual arts designed to create an appreciation of the vocabulary, media, techniques, and purposes of the creative process. Students will critically interpret and evaluate works of art within formal, cultural, and historical contexts.
Lecture hrs = 3; lab hrs = 0

ARTS 1316
Drawing I
A foundation studio course exploring drawing with emphasis on descriptive, expressive and conceptual approaches. Students will further develop the ability to see and interpret a variety of subjects while using diverse materials and techniques. Course work will facilitate a dialogue in which students will engage in critical analysis and begin to develop their understanding of drawing as a discipline.
Lecture hrs = 3; lab hrs = 3
Lab fee

ARTS 1317
Drawing II
A studio course exploring drawing with continued emphasis on descriptive, expressive and conceptual approaches. Students will further develop the ability to see and interpret a variety of subjects while using diverse materials and techniques. Course work will facilitate a dialogue in which students will employ critical analysis to broaden their understanding of drawing as a discipline.
Lecture hrs = 3; lab hrs = 3
Lab fee

ARTS 2316
Painting I
Studio art course that introduces the fundamental principles, materials, and techniques of painting.
Prerequisite: ARTS 1316 or permission of instructor
Lecture hrs = 3; lab hrs = 3
Lab fee

ARTS 2317
Painting II
Studio art course that furthers the study of the principles, materials, and techniques of painting.
Prerequisite: ARTS 2316
Lecture hrs = 3; lab hrs = 3
Lab fee

ARTS 2346
Ceramics I
A studio art course that introduces basic building, throwing, and other techniques as it relates to the design and production of ceramic sculpture and pottery.
Lecture hrs = 3; lab hrs = 3
Lab fee

ARTS 2347
Ceramics II
A studio art course that furthers the study of building, throwing, and other techniques as it relates to the design and production of ceramic sculpture and pottery.
Lecture hrs = 3; lab hrs = 3
Lab fee

ARTS 2356
Photography I
A studio art course that introduces the technical and conceptual basics of photography as a creative medium.
Cross-listed with journalism emphasis as COMM 1318
Lecture hrs = 3; lab hrs = 3

ARTS 2357
Photography II
A studio art course that furthers the study of the technical and conceptual basics of photography as a creative medium.
Prerequisite: ARTS 2356
Lecture hrs = 3; lab hrs = 3

ARTS 2366
Watercolor I
Studio art course that introduces the fundamental principles, materials, and techniques of watercolor and other water-based media.
Lecture hrs = 3; lab hrs = 3
Lab fee

BCIS 1305
Business Computer Applications
Introduces and develops foundational skills in applying essential and emerging business productivity information technology tools. The focus of this course is on business productivity software applications, including word processing, spreadsheets, databases, presentation graphics, data analytics, and business-oriented utilization of the internet. (BCIS 1305 is included in the Business Field of Study.)
Lecture hrs = 3; lab hrs = 0
Lab fee

BIOL 1322
Nutrition & Diet Therapy
This course introduces general nutritional concepts in health and disease and includes practical applications of that knowledge. Special emphasis is given to nutrients and nutritional processes including functions, food sources, digestion, absorption, and metabolism. Food safety, availability, and nutritional information including food labels, advertising, and nationally established guidelines are addressed.
Lecture hrs = 3; lab hrs = 0
BIOL 1406
Biology for Science Majors I
May be taken by non-science majors as well as science majors. May be taken out of sequence. 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, ecology and scientific reasoning are included. Laboratory activities will reinforce the above concepts. Must register for both lecture and lab Lecture hrs = 3; lab hrs = 3 Lab fee

BIOL 1407
Biology for Science Majors II
May be taken by non-science majors as well as science majors. May be taken out of sequence. 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. Laboratory activities will reinforce the above concepts. Must register for both lecture and lab Lecture hrs = 3; lab hrs = 3 Lab fee

BIOL 1408
Biology for Non-Science Majors I
Provides a survey of biological principles with an emphasis on humans, including chemistry of life, cells, structure, function and reproduction. Laboratory activities will reinforce the above concepts. BIOL 1408 and BIOL 1409 may be taken out of sequence. Recommended for non-science majors. Must register for both lecture and lab Lecture hrs = 3; lab hrs = 3 Lab fee

BIOL 1409
Biology for Non-Science Majors II
This course will provide a survey of biological principles with an emphasis on humans, including evolution, ecology, plant and animal diversity and physiology. Laboratory activities will reinforce the above concepts. BIOL 1408 and BIOL 1409 may be taken out of sequence. Recommended for non-science majors. Must register for both lecture and lab Lecture hrs = 3; lab hrs = 3 Lab fee

BIOL 2401
Anatomy and Physiology I
Anatomy and Physiology I is the first part of a two course sequence. It is a study of the structure and function of the human body including the following systems: endocrine, cardiovascular, immune, lymphatic, respiratory, digestive (including nutrition), urinary (including fluid and electrolyte balance), and reproductive (including human development and genetics). Emphasis is on interrelationships among systems and regulation of physiological functions involved in maintaining homeostasis. The lab provides a hands-on learning experience for exploration of human system components and basic physiology. Systems to be studied include endocrine, cardiovascular, immune, lymphatic, respiratory, digestive (including nutrition), urinary (including fluid and electrolyte balance), and reproductive (including human development and genetics). Prerequisite: TSI Reading complete and must have passed BIOL 2401 with at least a grade of “C” Lecture hrs = 3; lab hrs = 3 Lab fee

BIOL 2402
Anatomy and Physiology II
Anatomy and Physiology II is the second part of a two course sequence. It is a study of the structure and function of the human body including the following systems: endocrine, cardiovascular, immune, lymphatic, respiratory, digestive (including nutrition), urinary (including fluid and electrolyte balance), and reproductive (including human development and genetics). Emphasis is on interrelationships among systems and regulation of physiological functions involved in maintaining homeostasis. The lab provides a hands-on learning experience for exploration of human system components and basic physiology. Systems to be studied include endocrine, cardiovascular, immune, lymphatic, respiratory, digestive (including nutrition), urinary (including fluid and electrolyte balance), and reproductive (including human development and genetics). Prerequisite: TSI Reading complete and must have passed BIOL 2401 with at least a grade of “C” Lecture hrs = 3; lab hrs = 3 Lab fee

BIOL 2404
Anatomy and Physiology
A single-semester course. This course is not acceptable in the ADN, HIT, or OTA programs. Study of the structure and function of human anatomy, including the neuroendocrine, integumentary, musculoskeletal, digestive, urinary, reproductive and circulatory systems. Content may be either integrated or specialized. Must register for both lecture and lab Lecture hrs = 3; lab hrs = 3 Lab fee

BIOL 2406
Environmental Biology
This lecture and lab course should combine all of the elements of BIOL 2306 (lecture) and BIOL 2106 (lab), including the learning outcomes listed for both courses. Must register for both lecture and lab Lecture hrs = 3; lab hrs = 3 Lab fee

BIOL 2420
Microbiology for Non-Science Majors
This course covers basic microbiology and immunology and is primarily directed at pre-nursing, pre-allied health, and non-science majors. It provides an introduction to historical concepts of the nature of microorganisms, microbial diversity, the importance of microorganisms and acellular agents in the biosphere, and their roles in human and animal diseases. Major topics include bacterial structure as well as growth, physiology, genetics, and biochemistry of microorganisms. Emphasis is on medical microbiology, infectious diseases, and public health. The lab covers basics of culture and identification of bacteria and microbial ecology and covers basics of microbiology. Recommended: A four-hour chemistry or biology course; TSI Reading complete Must register for both lecture and lab Lecture hrs = 3; lab hrs = 3 Lab fee

BMAT 0101
BASE Mathematics Skills
The BASE NCBO supports students in developing skills, strategies, and reasoning needed to succeed in mathematics, including communication and appropriate use of technology. Topics include the study of numeracy and the real number system; algebraic concepts, notation, and reasoning; quantitative relationships; mathematical models; and problem solving. Will not meet graduation requirements. Co-enrollment in MATH 0200 – This intervention provides additional support and is required for students with prescribed TSI scores. Lecture hrs = 0; lab hrs = 1
**BMGT 1301**  
Supervision  
The role of the supervisor. Includes managerial functions as applied to leadership, counseling, motivation and human relations skills.  
*Lecture hrs = 3; lab hrs = 0*

**BREA 0301**  
BASE Reading Skills  
Development of reading and higher order thinking skills necessary for college readiness. This intervention is designed specifically for students assessed at BASE levels 3-4 and must be part of a student’s co-enrollment (co-requisite) enrollment as a mainstreamed intensifier providing contact hours for additional, just-in-time instructional support for the student’s success in the developmental reading course. Will not meet graduation requirements.  
*Co-enrollment in INRW 0302 required  
Lecture hrs = 0; lab hrs = 1*

**BUSI 1301**  
Business Principles  
This course provides a survey of economic systems, forms of business ownership, and considerations for running a business. Students will learn various aspects of business, management, and leadership functions; organizational considerations; and decision-making processes. Financial topics are introduced, including accounting, money and banking, and securities markets. Also included are discussions of business challenges in the legal and regulatory environment, business ethics, social responsibility, and international business. Emphasized is the dynamic role of business in everyday life.  
*Lecture hrs = 3; lab hrs = 0*

**BUSI 1307**  
Personal Finance  
Personal and family accounts, budgets and budgetary control, bank accounts, charge accounts, borrowing, investing, insurance, standards of living, renting or home ownership and wills and trust plans.  
*Lecture hrs = 3; lab hrs = 0*

**BUSI 2301**  
Business Law  
The course provides the student with foundational information about the U.S. legal system and dispute resolution, and their impact on business. The major content areas will include general principles of law, the relationship of business and the U.S. Constitution, state and federal legal systems, the relationship between law and ethics, contracts, sales, torts, agency law, intellectual property, and business law in the global context.  
*Lecture hrs = 3; lab hrs = 0*

**BUSI 2305**  
Business Statistics  
Descriptive and inferential statistical techniques for business and economic decision-making. Topics include the collection, description, analysis, and summarization of data; probability; discrete and continuous random variables; the binomial and normal distributions; sampling distributions; tests of hypotheses; estimation and confidence intervals; linear regression; and correlation analysis. Statistical software is used to analyze data throughout the course. (BUSI 2305 is included in the Business Field of Study.)  
*Prerequisites: BCIS 1305 and MATH 1324 or MATH 1344  
Lecture hrs = 3; lab hrs = 0*

**BWRI 0301**  
BASE Writing Skills  
Development of college-level writing focusing on idea generation, drafting, organization, revision, and utilization of Standard English. This intervention is designed specifically for students assessed at BASE levels 3-4 and must be part of a student’s co-enrollment (co-requisite) enrollment as a mainstreamed intensifier providing contact hours for additional, just-in-time instructional support for the student’s success in the developmental writing course. Will not meet graduation requirements.  
*Co-enrollment in INRW 0302 required  
Lecture hrs = 0; lab hrs = 1*

**CHEM 1405**  
Introductory Chemistry I  
Survey course introducing chemistry. Topics may include inorganic, organic, biochemistry, food/physiological chemistry, and environmental/consumer chemistry. Designed for allied health students and for students who are not science majors.  
*Lecture hrs = 3; lab hrs = 3  
Lab fee*

**CHEM 1407**  
Introductory Chemistry II  
*A continuation of Chemistry 1405 that focuses on organic chemistry and biochemistry.  
Prerequisite: CHEM 1405  
Lecture hrs = 3; lab hrs = 3  
Lab fee*

**CHEM 1411**  
General Chemistry I  
This lecture and lab course should combine all of the elements of 1311 General Chemistry I Lecture and 1111 General Chemistry I Lab, including the learning outcomes listed for both courses.  
*Prerequisite: TSI Math and Reading complete, MATH 1314 or concurrent enrollment  
Lecture hrs = 3; lab hrs = 3; extended hrs = 1  
Lab fee*

**CHEM 1412**  
General Chemistry II  
This lecture and lab course should combine all of the elements of 1312 General Chemistry II Lecture and 1312 General Chemistry II Lab, including the learning outcomes listed for both courses.  
*Prerequisite: CHEM 1411  
Lecture hrs = 3; lab hrs = 3; extended hrs = 1  
Lab fee*

**CNBT 1270**  
Concrete I  
Various techniques for concrete utilization in residential and light commercial construction.  
*Lecture hrs = 3; lab hrs = 3  
Lab fee*

**CNBT 1302**  
Mechanical, Plumbing & Electrical Systems in Construction I  
A presentation of the basic mechanical, plumbing, and electrical components in construction and their relationship to residential and light commercial buildings.  
*Lecture hrs = 2; lab hrs = 3*

**CNBT 1311**  
Construction Methods and Materials I  
Introduction to construction materials and methods and their application.  
*Lecture hrs = 2; lab hrs = 3*

**CNBT 2340**  
Mechanical, Plumbing & Electrical Systems in Construction II  
Processes and methods used in design, selection of equipment, and installation of mechanical, plumbing, and electrical systems in commercial buildings. Includes heating and cooling systems, duct work, mechanical and electrical control systems, lighting requirements, and design of water supply and sanitary sewer systems.  
*Lecture hrs = 2; lab hrs = 3*
COMM 1307
Introduction to Mass Communication
Survey of basic content and structural elements of mass media and their functions and influences on society.
Lecture hrs = 3; lab hrs = 0

COMM 1318
Photography I
Introductions to the basics of photography, including techniques and equipment operation. Cross-listed with fine arts emphasis as ARTS 2356
Lecture hrs = 3; lab hrs = 3
Lab fee

COMM 1319
Photography II
Extends the students' knowledge of technique and guides them in developing personal outlooks toward specific applications of the photographic process. Cross-listed with fine arts emphasis as ARTS 2357
Prerequisite: COMM 1318 Photography I or course equivalent
Lecture hrs = 3; lab hrs = 3
Lab fee

COMM 1335
Introduction to Electronic Media
An overview of the development, regulation, economics, social impact, and industry practices in electronic media.
Lecture hrs = 3; lab hrs = 0

COMM 2305
Editing and Layout
Editing and layout processes, with emphasis on accuracy and fairness, including the principles and techniques of design.
Lecture hrs = 3; lab hrs = 3
Lab fee

COMM 2311
Media Writing
Fundamentals of writing for the mass media. Includes instruction in professional methods and techniques for gathering, processing, and delivering content.
Lecture hrs = 3; lab hrs = 3
Lab fee

COMM 2315
News Reporting
This course focuses on advanced news-gathering and writing skills. It concentrates on the three-part process of producing news stories: discovering the news, reporting the news, and writing the news in different formats.
Prerequisite: COMM 2311
Lecture hrs = 3; lab hrs = 3
Lab fee

COMM 2339
Writing for Radio, Television & Film
Introduction to basic script formats, terminology, and writing techniques, including the writing of commercials, public service announcements, promotions, news, documentary, and fictional materials.
Lecture hrs = 3; lab hrs = 0

COMM 2366
Film Appreciation
Survey and analyze cinema including history, film techniques, production procedures, selected motion pictures, and cinema's impact on and reflection of society. Cross-listed as DRAM 2366
Lecture hrs = 3; lab hrs = 3

COMM 2389
Academic Cooperative
An instructional program designed to integrate on-campus study with practical hands-on work experience. In conjunction with class seminars, the individual student will set specific goals and objectives in the study of communication.
Lecture hrs = 0; lab hrs = 9

COSC 1301
Introduction to Computing
Overview of computer systems—hardware, operating systems, the Internet, and application software including word processing, spreadsheets, presentation graphics, and databases. Current topics such as the effect of computers on society, and the history and use of computers in business, educational, and other interdisciplinary settings are also studied. This course is not intended to count toward a student's major field of study in business or computer science.
Lecture hrs = 3; lab hrs = 0
Lab fee

COSC 1436
Programming Fundamentals I
This course introduces the fundamental concepts of structured programming, and provides a comprehensive introduction to programming for computer science and technology majors. Topics include software development methodology, data types, control structures, functions, arrays, and the mechanics of running, testing, and debugging. This course assumes computer literacy. (This course is included in the Field of Study Curriculum for Computer Science.)
Lecture hrs = 3; lab hrs = 3
Lab fee

COSC 1437
Programming Fundamentals II
This course focuses on the object-oriented programming paradigm, emphasizing the definition and use of classes along with fundamentals of object-oriented design. The course includes basic analysis of algorithms, searching and sorting techniques, and an introduction to software engineering processes. Students will apply techniques for testing and debugging software. (This course is included in the Field of Study Curriculum for Computer Science.)
Prerequisite: COSC 1436
Lecture hrs = 3; lab hrs = 3
Lab fee

CRIJ 1301
Introduction to Criminal Justice
This course provides a historical and philosophical overview of the American criminal justice system, including the nature, extent, and impact of crime; criminal law; and justice agencies and processes.
Lecture hrs = 3; lab hrs = 0

CRIJ 1306
Court Systems & Practices
This course is a study of the court system as it applies to the structures, procedures, practices and sources of law in American courts, using federal and Texas statutes and case law.
Lecture hrs = 3; lab hrs = 0

CRIJ 1307
Crime in America
American crime problems in historical perspective, social and public policy factors affecting crime, impact and crime trends, social characteristics of specific crimes, and prevention of crime.
Lecture hrs = 3; lab hrs = 0
CRIJ 1310
Fundamentals of Criminal Law
This course is the study of criminal law including application of definitions, statutory elements, defenses and penalties using Texas statutes, the Model Penal Code, and case law. The course also analyzes the philosophical and historical development of criminal law and criminal culpability.
Lecture hrs = 3; lab hrs = 0

CRIJ 2313
Correctional Systems & Practices
This course is a survey of institutional and non-institutional corrections. Emphasis will be placed on the organization and operation of correctional systems; treatment and rehabilitation; populations served; Constitutional issues; and current and future issues.
Lecture hrs = 3; lab hrs = 0

CRIJ 2314
Criminal Investigation
Investigative theory; collection and preservation of evidence; sources of information; interview and interrogation; uses of forensic sciences; case and trial preparation.
Lecture hrs = 3; lab hrs = 0

CRIJ 2328
Police Systems & Practice
This course examines the establishment, role and function of police in a democratic society. It will focus on types of police agencies and their organizational structure, police-community interaction, police ethics, and use of authority.
Lecture hrs = 3; lab hrs = 0

CSME 1401
Orientation
An overview of the skills and the knowledge necessary for the field of cosmetology.
Lecture hrs = 2; lab hrs = 6
Lab fee

CSME 1405
Fundamentals of Cosmetology
A course in the basic fundamentals of cosmetology. Topics include safety and sanitation, service preparation, manicure, facial, chemical services, shampoo, haircut, wet styling, and comb out.
Lecture hrs = 2; lab hrs = 8
Lab fee

CSME 1420
Orientation to Nail Technology
An overview of the fundamental skills and knowledge necessary for the field of nail technology.
Lecture hrs = 2; lab hrs = 8
Lab fee

CSME 1433
Principles of Nail Technology I
A course in the principles of nail technology. Topics include anatomy, physiology, theory and related skills of nail technology.
Lecture hrs = 2; lab hrs = 8
Lab fee

CSME 1434
Cosmetology Instructor I
The fundamentals of instructing cosmetology students.
Prerequisite: Valid Texas Department of Licensing and Regulation license and high school diploma or GED & CSME 1435
Lecture hrs = 2; lab hrs = 8
Lab fee

CSME 1435
Orientation to the Instruction of Cosmetology
An overview of the skills necessary for the instruction of cosmetology students.
Prerequisite: Valid Texas Department of Licensing and Regulation license and high school diploma or GED
Lecture hrs = 2; lab hrs = 6
Lab fee

CSME 1441
Principles of Nail Technology II
A continuation of the concepts and principles of nail technology. Topics include professional ethics, salon management, client relations, and related skills of nail technology.
Prerequisite: CSME 1431
Lecture hrs = 2; lab hrs = 8
Lab fee

CSME 1443
Manicuring and Related Theory
Presentation of the theory and practice of nail services. Topics include terminology, application and workplace competencies related to nail services.
Lecture hrs = 2; lab hrs = 6
Lab fee

CSME 1447
Skin Care/Facials/Related Theory
In-depth coverage of the theory and practice of skin care, facials and cosmetics.
Lecture hrs = 2; lab hrs = 6
Lab fee

CSME 1451
Artistry of Hair: Theory and Practice
Instruction in the artistry of hair design. Topics include theory, techniques and application of hair design.
Lecture hrs = 2; lab hrs = 8
Lab fee

CSME 1453
Chemical Reformation
Presentation of the theory and practice of chemical reformation including terminology, application and workplace competencies.
Lecture hrs = 2; lab hrs = 8
Lab fee

CSME 2237
Advanced Cosmetology Techniques
Mastery of advanced cosmetology techniques including hair designs, professional cosmetology services, and workplace competencies.
Lecture hrs = 0; lab hrs = 8
Lab fee

CSME 2343
Salon Development
Procedures necessary for salon development. Topics include professional ethics and goals, salon operation and record keeping.
Lecture hrs = 2; lab hrs = 4
Lab fee

CSME 2401
The Principles of Hair Coloring and Related Theory
Presentation of the theory, practice, and chemistry of hair color. Topics include terminology, application, and workplace competencies related to hair color.
Lecture hrs = 2; lab hrs = 8
Lab fee
CSME 2414
Cosmetology Instructor II
A continuation of the fundamentals of instructing cosmetology students.
Lecture hrs = 2; lab hrs = 8
Lab fee

CSME 2430
Nail Enhancement
A course in the theory, application, and related technology of nail enhancements.
Prerequisite: CSME 2441
Lecture hrs = 2; lab hrs = 8
Lab fee

CSME 2439
Advanced Hair Design
Advanced concepts in the theory and practice of hair design.
Lecture hrs = 2; lab hrs = 6
Lab fee

CSME 2441
Preparation for State Exam
Preparation for the state licensing examination.
Lecture hrs = 2; lab hrs = 8
Lab fee

CSME 2444
Cosmetology Instructor IV
Advanced concepts of instruction in a cosmetology program. Topics include demonstration, development, and implementation of advanced evaluation techniques.
Prerequisite: Valid Texas Department of Licensing and Regulation license and high school diploma or GED & CSME 2449
Lecture hrs = 2; lab hrs = 8
Lab fee

CSME 2449
Cosmetology Instructor III
Presentation of lesson plan assignments and evaluation techniques.
Prerequisite: Valid Texas Department of Licensing and Regulation license and high school diploma or GED & CSME 2444
Lecture hrs = 2; lab hrs = 8
Lab fee

DEM 1316
Basic Hydraulics
Fundamentals of hydraulics including components and related systems.
Lecture hrs = 2; lab hrs = 3
Lab fee

DFTG 1325
Blueprint Reading and Sketching
An introduction to reading and interpreting working drawings for fabrication processes and associated trades. Use of sketching techniques to create pictorial and multiple-view drawings.
Lecture hrs = 2; lab hrs = 3
Lab fee

DRAM 1120, 1121, 2120, 2121
Theatre Practicum I, II, III, IV
Practicum in theater open to all students with emphasis on technique and procedures with experience gained in play productions. Practical experience in a minimum of two productions each semester.
Lecture hrs = 0; lab hrs = 4

DRAM 1310
Theater Appreciation
Survey of theater including its history, dramatic works, stage techniques, production procedures, and relation to other art forms. Participation in productions may be required.
Lecture hrs = 3; lab hrs = 3

DRAM 1322
Stage Movement
Principles, practices, and exercises in awareness, relaxation, freedom, flexibility, and expressiveness in the actor’s physical instrument.
Lecture hrs = 3; lab hrs = 3

DRAM 1330
Stagecraft I
Study and application of the methods and components of theatrical production that may include one or more of the following: theater facilities, scenery construction and painting, properties, lighting, costume, makeup, sound, and theatrical management.
Lecture hrs = 3; lab hrs = 0

DRAM 1341
Stage MakeUp
Design and execution of makeup for the stage performer. Includes discussion of makeup principles and practical experience of makeup application.
Lecture hrs = 3; lab hrs = 3

DRAM 1342
Costume Technology
Introduction to the process and application of the fundamental skills of costume production, modification, and maintenance.
Lecture hrs = 3; lab hrs = 3

DRAM 1351
Acting I
An introduction to the fundamental principles and tools of acting as used in auditions, rehearsals, and performances. This may include ensemble performing, character and script analysis, and basic theater terminology. This exploration will emphasize the development of the actor’s instrument: voice, body and imagination.
Lecture hrs = 3; lab hrs = 3

DRAM 1352
Acting II
Exploration and further training within the basic principles and tools of acting, including an emphasis on critical analysis of oneself and others. The tools include ensemble performing, character and script analysis, and basic theater terminology. This will continue the exploration of the development of the actor’s instrument: voice, body and imagination.
Lecture hrs = 3; lab hrs = 3

DRAM 2289/2389
Academic Cooperative
An instructional program designed to integrate on-campus study with practical hands-on work experience. In conjunction with class seminars, the individual student will set specific goals and objectives in the study of drama.
Lecture hrs for DRAM 2289 = 0; lab hrs = 9
Lecture hrs for DRAM 2389 = 0; lab hrs = 9

DRAM 2331
Stagecraft II
Continued study and application of the methods and components of theatrical production which may include one or more of the following: theater facilities, scenery construction and painting, properties, lighting, costume, makeup, sound and theatrical management.
Lecture hrs = 3; lab hrs = 0
EDUC 2301
Introduction to Special Populations
An enriched, integrated pre-service course and content experience that provides an overview of schooling and classrooms from the perspectives of language, gender, socioeconomic status, ethnic and academic diversity, and equity with an emphasis on factors that facilitate learning. The course provides students with opportunities to participate in early field observations of P-12 special populations and should be aligned as applicable with State Board for Educator Certification Pedagogy and Professional Responsibilities standards. Must include a minimum of 16 contact hours of field experience in P-12 classrooms with special populations.
Prerequisite: EDUC 1301
Lecture hrs = 3; lab hrs = 0; field experience hrs = 1

ELMT 1301
Basic Programmable Logic Controllers
An introduction to programmable logic controllers as used in industrial environments including basic concepts, programming, applications, troubleshooting of ladder logic and interfacing of equipment.
Lecture hrs = 2; lab hrs = 3
Lab fee

ELMT 2339
Advanced Programmable Logic Controllers
Advanced applications of programmable logic controllers as used in industrial environments including concepts of programming, industrial applications, troubleshooting ladder logic, and interfacing to equipment.
Lecture hrs = 2; lab hrs = 3
Lab fee

ELMT 2370
Advanced Mechanical Engines
Continuation of Introduction to Mechanical Engines. Coverage of testing and repairing diesel, gasoline, and natural gas engines including related systems and specialized tools. Emphasis on energy industry related uses of these components.
Lecture hrs = 2; lab hrs = 3
Lab fee

ELP 1313
Basic Electrical Theory
Basic theory and practice of electrical circuits. Includes calculations as applied to alternating and direct current.
Lecture hrs = 3; lab hrs = 3
Lab fee

ELP 1326
National Electrical Code I
An introductory study of the National Electric Code (NEC) for those employed in fields requiring knowledge of the Code. Emphasis on wiring design, protection, methods, and materials; equipment for general use; and basic calculations.
Lecture hrs = 3; lab hrs = 0

ELPT 1321
Motor Control
Operating principles of solid-state and conventional controls along with their practical applications. Includes braking, jogging, plugging, safety interlocks, wiring, and schematic diagram interpretations.
Prerequisite: ELPT1311
Lecture hrs = 2; lab hrs = 3
Lab fee

ELPT 1345
Commercial Wiring
Commercial wiring methods. Includes overcurrent protection, raceway panel board installation, proper grounding techniques, and associated safety procedures.
Lecture hrs = 2; lab hrs = 3
Lab fee

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**ELPT 1370**  
Advanced Electricity  
Introduction to advanced electrical theory and circuitry including, power factor, induction, capacitance, apparent power, sine wave analysis, and complex circuitry. Power distribution calculations and circuits are also included.  
Lecture hrs = 2; lab hrs = 3  
Lab fee

**ELPT 2305**  
Motors and Transformers  
Operation of single- and three-phase motors and transformers. Includes transformer banking, power factor correction, and protective devices.  
Lecture hrs = 2; lab hrs = 4  
Lab fee

**EMSP 1338**  
Introduction to Advanced Practice  
An exploration of the foundations necessary for mastery of the advanced topics of clinical practice out of the hospital.  
Lecture hrs = 3; lab hrs = 1  
Lab fee

**EMSP 1355**  
Trauma Management  
A detailed study of the knowledge and skills in the assessment and management of patients with traumatic injuries.  
Lecture hrs = 2; lab hrs = 2  
Lab fee

**EMSP 1356**  
Patient Assessment and Airway Management  
A detailed study of the knowledge and skills required to perform patient assessment and airway management.  
Lecture hrs = 2; lab hrs = 3  
Lab fee

**EMSP 1361**  
Clinical - Emergency Medical Technology/ Technician  
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.  
Lecture hrs = 0; lab hrs = 0  
Lab fee

**EMSP 1501**  
Emergency Medical Technician - Basic  
Preparation for certification as an Emergency Medical Technician (EMT) - Basic. Includes all the skills necessary to provide emergency medical care at a basic life support level with an emergency service or other specialized services.  
Lecture hrs = 4; lab hrs = 6  
Lab fee

**EMSP 2205**  
EMS Operations  
A detailed study of the knowledge and skills to safely manage the scene of an emergency.  
Lecture hrs = 2; lab hrs = 1  
Lab fee

**EMSP 2260**  
Clinical - Emergency Medical EMT Paramedic  
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.  
Lecture hrs = 0; lab hrs = 0  
Lab fee

**EMSP 2261**  
Clinical - Emergency Medical EMT Paramedic  
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.  
Lecture hrs = 0; lab hrs = 0  
Lab fee

**EMSP 2306**  
Emergency Pharmacology  
A study of drug classifications, actions, therapeutic uses, adverse effects, routes of administration, and calculation of dosages.  
Lecture hrs = 3; lab hrs = 1  
Lab fee

**EMSP 2330**  
Special Populations  
A detailed study of the knowledge and skills necessary to assess and manage ill or injured patients in diverse populations.  
Lecture hrs = 2; lab hrs = 3  
Lab fee

**EMSP 2434**  
Medical Emergencies  
A detailed study of the knowledge and skills in the assessment and management of patients with medical emergencies.  
Lecture hrs = 2; lab hrs = 2  
Lab fee

**EMSP 2444**  
Cardiology  
Assessment and management of patients with cardiac emergencies. Includes single and multi-lead ECG interpretation.  
Lecture hrs = 3; lab hrs = 3  
Lab fee

**ENER 1270**  
Employment Success Energy Industry  
A comprehensive study of basic communication skills necessary for business and industry; included are techniques in reading, writing, listening, and speaking. Emphasis is placed upon written and spoken communication as they relate to correspondence and oral presentations in a business environment. Topics include communication skills such as listening, writing, verbal and non-verbal communication, conflict resolution and interviewing skills with emphasis on the importance of effective oral communications.  
Lecture hrs = 1; lab hrs = 3  
Lab fee

**ENER 1350**  
Overview of Energy Industry  
Introduction to the major sectors of the energy industry. Includes a comparison of energy industry careers.  
Lecture hrs = 2; lab hrs = 3  
Lab fee
ENER 1375
Introduction to Mechanical Engines
Fundamentals of engine operation, engine diagnosis and engine repair. Emphasis on identification, inspection, measurement and disassembly, repair, and reassembly of the engine. Course may be taught manufacturer specific. Will cover gasoline, diesel and natural gas engine theory as used in the energy industry.
Lecture hrs = 2; lab hrs = 3
Lab fee

ENGL 0300
Foundations of Composition
The course provides instruction in the integration and development of critical reading and academic writing skills. Successful completion of this intervention fulfills TSI requirements for reading and/or writing. Will not meet graduation requirements.
Co-enrollment in ENGL 1301—This intervention provides additional support and is required for students with prescribed TSI Reading/Writing scores
Lecture hrs = 0; lab hrs = 3

ENGL 1301
Composition I
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: TSI Reading and Writing complete
Lecture hrs = 3; lab hrs = 0

ENGL 1302
Composition II
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: TSI Reading and Writing complete and ENGL 1301
Lecture hrs = 3; lab hrs = 0

ENGL 2311
Technical & Business Writing
Intensive study of and practice in professional settings. Focus on the types of documents necessary to make decisions and take action on the job, such as proposals, reports, instructions, policies and procedures, email messages, letters and descriptions of products and services. Practice individual and collaborative processes involved in the creation of ethical and efficient documents.
Lecture hrs = 3; lab hrs = 0

ENGL 2321
British Literature I
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: TSI Reading Complete and ENGL 1301 and 1302
Lecture hrs = 3; lab hrs = 0

ENGL 2322
British Literature II
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: TSI Reading complete and ENGL 1301 and 1302
Lecture hrs = 3; lab hrs = 0

ENGL 2332
World Literature I
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.
Lecture hrs = 3; lab hrs = 0

ENGL 2333
World Literature II
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.
Lecture hrs = 3; lab hrs = 0

GOVT 2304
Introduction to Political Science
Introductory survey of the discipline of political science focusing on the scope, and methods of the field, and the substantive topics in the discipline including the theoretical foundations of politics, political interaction, political institutions and how political systems function.
Lecture hrs = 3: lab hrs = 0

GOVT 2305
Federal Government
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.
Prerequisite: TSI Reading complete
Lecture hrs = 3; lab hrs = 0
GOVT 2306  
Texas Government  
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.  
Prerequisite: TSI Reading complete  
Lecture hrs = 3; lab hrs = 0

GOVT 2311  
Mexican American and Latinx Politics  
The study of Mexican American and Latinx politics within the American political experience. Topics include historical, cultural, socioeconomic, and constitutional issues that pertain to the study of Mexican Americans and other Latinx populations in the United States. Other topics such as political participation, governmental institutions, electoral politics, political representation, demographic trends, and other contemporary public policy debates will also be addressed.  
Lecture hrs = 3; lab hrs = 0

HART 1307  
Refrigeration Principles  
An introduction to the refrigeration cycle, heat transfer theory, temperature/pressure relationship, refrigerant handling, refrigeration components, and safety.  
Lecture hrs = 2; lab hrs = 3

HART 2336  
Air Conditioning Troubleshooting  
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.  
Lecture hrs = 2; lab hrs = 3

HEMR 1304  
Natural Gas Compression  
An introductory course in the principles of operation of gas compressors and natural gas engines.  
Lecture hrs = 3; lab hrs = 4

HEMR 1370  
Natural Gas Compression II  
Continuation of HEMR 1304: Natural Gas Compression; includes principles of operation for natural gas compressors and natural gas engines. Startup and shutdown of a natural gas compressor skid. Troubleshooting procedures and the required tools used.  
Lecture hrs = 3; lab hrs = 1

HEMR 1371  
Natural Gas Maintenance and Troubleshooting  
Introduction into CNG compression and pumps, valves, snap controllers, compressor maintenance and repair. Including the diagnostics and troubleshooting of natural gas compressors, and engines.  
Lecture hrs = 2; lab hrs = 3

HIST 1301  
U.S. History I  
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: TSI Reading complete  
Lecture hrs = 3; lab hrs = 0

HIST 1302  
U.S. History II  
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: TSI Reading complete  
Lecture hrs = 3; lab hrs = 0

HIST 2301  
Texas History  
A survey of the political, social, economic, cultural and intellectual history of Texas from the pre-Columbian era to the present. Themes that may be addressed in Texas History include: Spanish colonization and Spanish Texas; Mexican Texas; the Republic of Texas; statehood and secession; oil, industrialization and urbanization; civil rights and modern Texas. May be substituted for HIST 1301 or 1302.  
Lecture hrs = 3; lab hrs = 0

HIST 2311  
Western Civilization I  
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.  
Lecture hrs = 3; lab hrs = 0

HIST 2312  
Western Civilization II  
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 globalization.  
Lecture hrs = 3; lab hrs = 0

HITT 1211  
Health Information Systems  
Introduction to health IT standards, health-related data structures, software applications, and enterprise architecture in health care and public health.  
Lecture hrs = 3; lab hrs = 3

HITT 1303  
Health Data Content and Structure  
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.  
Lecture hrs = 3; lab hrs = 3  
Fall semester only
HITT 1305
Medical Terminology I
Study of medical terms through word origin and structure. Introduction to abbreviations and symbols, surgical and diagnostic procedures, and medical specialties.
Lecture hrs = 3; lab hrs = 0

HITT 1342
Ambulatory Coding
Fundamentals of ambulatory coding rules, conventions, and guidelines.
Co-requisites: HITT 1305, BIOL 2404
Lecture hrs = 3; lab hrs = 0
Spring semester only

HITT 1345
Health Care Delivery Systems
Examination of delivery systems including organization, financing, accreditation, licensure, and regulatory agencies.
Lecture hrs = 3; lab hrs = 0
Fall semester only

HITT 1353
Legal and Ethical Aspects of Health Information
Concepts of privacy, security, confidentiality, ethics, health care legislation, and regulations relating to the maintenance and use of health information.
Lecture hrs = 3; lab hrs = 0

HITT 1361
Clinical I - Health Information Technology/Technician
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.
Prerequisites or co-requisites: HITT 1305, 2343, 2346
Lecture hrs = 0; lab hrs = 0; clinical hrs = 160

HITT 2340
Advanced Medical Billing and Reimbursement
Skill development in coding to prepare reimbursement forms in various health care settings for submission to payors.
Prerequisites: HITT 1345, 1444
Prerequisite or co-requisite: HITT 2346
Lecture hrs = 2; lab hrs = 1
Spring semester only

HITT 2361
Clinical II - Health Information/Medical Records Technology/Technician
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.
Prerequisite: HITT 1361
Prerequisites or co-requisites: HITT 2240, 2343, 2346
Lecture hrs = 0; lab hrs = 10
Clinical hrs = 160

HITT 2343
Quality Assessment and Performance Improvement
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. Approaches to assessing patient safety issues and implementation of quality management and reporting through electronic systems and approaches to assessing patient safety issues and implementation of quality management and reporting through electronic systems. Prerequisites: HITT 1345, 1353
Lecture hrs = 3; lab hrs = 0
Spring semester only

HITT 2346
Advanced Medical Coding
Advanced concepts of ICD and CPT coding rules, conventions, and guidelines in complex case studies. Investigation of government regulations and changes in health care reporting.
Prerequisites: HITT 1305, 1444
Co-requisite: HITT 1342
Lecture hrs = 1; lab hrs = 4
Lab fee
Spring semester only

HUMA 1301
Introduction to the Humanities I
This stand-alone course is an interdisciplinary survey of cultures focusing on the philosophical and aesthetic factors in human values with an emphasis on the historical development of the individual and society and the need to create.
Lecture hrs = 3; lab hrs = 0
HUMA 2323  
World Cultures  
This course is a general study of diverse world cultures. Topics include cultural practices, social structures, religions, arts, and languages.  
Lecture hrs = 3; lab hrs = 0

IMED 1401  
Introduction to Digital Media  
This course is a survey of the theories, elements, and hardware/software components of digital media. Emphasis is on conceptualizing and producing digital media presentations.  
Lecture hrs = 3; lab hrs = 3

IMED 1416  
Web Design I  
Instruction in web design and related graphic design issues including mark-up languages, websites, and browsers.  
Lecture hrs = 3; lab hrs = 3

INMT 2303  
Pumps, Compressors & Mechanical Drives  
A study of the theory and operations of various types of pumps and compressors. Topics include mechanical power transmission systems including gears, v-belts and chain drives.  
Lecture hrs = 2; lab hrs = 3

INMT 2388  
Internship-Manufacturing Tech  
A work-based learning experience that enables the student to apply specialized occupations theory, skills and concepts. A learning plan is developed by the college and the employer.  
Lecture hrs = 0; lab hrs = 9

INRW 0302  
Integrated Reading and Writing  
Integration of critical reading and academic writing skills. The course fulfills TSI requirements for reading and/or writing. Will not meet graduation requirements.  
Co-enrollment in BREA 0102, BWRI 0102, or both - This intervention provides additional support and is required for students with prescribed TSI  
Reading/Writing scores  
Lecture hrs = 3; lab hrs = 0

ITSC 2439  
Personal Computer Help Desk Support  
Diagnosis and solution of user hardware and software related problems with on-the-job and/or simulated projects.  
Lecture hrs = 3; lab hrs = 3

ITSC 1401  
Introduction to Word Processing  
An overview of the production of documents, tables, and graphics.  
Lecture hrs = 3; lab hrs = 3

ITSC 1404  
Introduction to Spreadsheets  
Instruction in the concepts, procedures, and application of electronic spreadsheets.  
Lecture hrs = 3; lab hrs = 3

ITSC 1407  
Introduction to Database  
Introduction to database theory and the practical applications of a database.  
Lecture hrs = 3; lab hrs = 3

ITSC 1410  
Introduction to Presentation Graphics Software  
Instruction in the utilization of presentation software to produce multimedia presentations. Graphics, text, sound, animation and/or video may be used in presentation development.  
Lecture hrs = 3; lab hrs = 3

KINE 1100  
Varsity Basketball I (Activity)  
Participation as a member of an intercollegiate athletic team. Approval for enrollment must be obtained from coach prior to registration.  
Lecture hrs = 0; lab hrs = 3

KINE 1101  
Varsity Baseball I (Activity)  
Participation as a member of an intercollegiate athletic team. Approval for enrollment must be obtained from coach prior to registration.  
Lecture hrs = 0; lab hrs = 3

KINE 1103  
Weight Training I (Activity)  
Three hours per week.  
Lecture hrs = 0; lab hrs = 3

KINE 1107  
Athletic Training Practicum I  
This course consists of directed practical experiences for working with athletes and the physically active population. First semester students will work toward mastery of specific competencies and proficiencies in the areas of Athletic Training: Game Preparation and Management, Taping/Wrapping and Bandaging, Athletic Training Clinic Operations, Acute Care of Injuries and Illnesses and Risk Management. Skills will be instructed under the supervision of a Licensed Athletic Trainer. Students will be required to work all home athletic events and required practices.  
Lecture hrs = 0; lab hrs = 3
KINE 1108  
**Varsity Volleyball I (Activity)**
Participation as a member of an intercollegiate athletic team. Approval for enrollment must be obtained from coach prior to registration.
Lecture hrs = 0; lab hrs = 3
Lab fee

KINE 1109  
**Body Conditioning I (Activity)**
Three hours per week.
Lecture hrs = 0; lab hrs = 3
Lab fee

KINE 1113  
**Weight Training II (Activity)**
Three hours per week.
Prerequisite: KINE 1103
Lecture hrs = 0; lab hrs = 3
Lab fee

KINE 1116  
**Zumba Fitness I (Activity)**
Three hours per week.
Lecture hrs = 0; lab hrs = 3
Lab fee

KINE 1119  
**Fitness Through Walking I (Activity)**
Three hours per week.
Lecture hrs = 0; lab hrs = 3
Lab fee

KINE 1125  
**Horsemanship I (Activity)**
Three hours per week.
Lecture hrs = 0; lab hrs = 3
Lab fee

KINE 1128  
**Running & Jogging I (Activity)**
This course focuses on the mechanics and development of proper running/jogging technique. Will emphasis a variety of minimal and maximum CO2 activities.
Lecture hrs = 0; lab hrs = 3
Lab fee

KINE 1129  
**Physical Education Boot Camp I (Activity)**
A course emphasizing MAXIMUM calorie burn in the shortest amount of time through a combination of strength, cardio, muscle endurance, flexibility, core, and functional movement patterns.
Lecture hrs = 0; lab hrs = 3
Lab fee

KINE 1130  
**Varsity Basketball II (Activity)**
Participation as a member of an intercollegiate athletic team. Approval for enrollment must be obtained from coach prior to registration.
Prerequisite: KINE 1100
Lecture hrs = 0; lab hrs = 3
Lab fee

KINE 1131  
**Varsity Baseball II (Activity)**
Participation as a member of an intercollegiate athletic team. Approval for enrollment must be obtained from coach prior to registration.
Prerequisite: KINE 1101
Lecture hrs = 0; lab hrs = 3
Lab fee

KINE 1132  
**Kickboxing I (Activity)**
Kickboxing is a fitness program designed to improve muscle tone and cardiovascular endurance through constant motion and repetition using martial arts techniques. A variety of techniques and some martial arts applications are taught.
Lecture hrs = 0; lab hrs = 3
Lab fee

KINE 1133  
**Pilates I (Activity)**
This course will prepare the student to practice yoga with harmony of the three aspects of body, mind, and spirit, through breath control, yoga postures, and relaxation exercises. You will learn how to use hatha yoga poses to increase flexibility and balance, have more core strength and energy, and feel more relaxed.
Lecture hrs = 0; lab hrs = 3
Lab fee

KINE 1135  
**Spin I (Activity)**
See consistent results while burning a high amount of calories and improving cardiovascular endurance in this non-impact class. Whether you are a beginner or avid cyclist this class is for you because it is modified to include all levels. A certified instructor focuses on fun and challenging rides with steady progressions towards the end of each format. Different rides include but are not limited to: intervals, strength, split rides, race day, combo and variety.
Lecture hrs = 0; lab hrs = 3; Lab fee

KINE 1136  
**Bungee Fitness I (Activity)**
An innovative workout for people of all ages. Resistance provides a unique experience along with cardio and muscle toning at the same time. Class is limited to 8 students, and each student gets their own hip harness for the duration of the lesson. The bungee cord is attached to the back of the harness so students can move and bounce freely. The bungees will assist students in dance and exercise movements, but provide resistance for strengthening and sculpting the muscles.
Lecture hrs = 0; lab hrs = 3; Lab fee: $75

KINE 1137  
**Athletic Training Practicum II**
This course consists of directed practical experiences for working with athletes and the physically active population. Second semester students will work toward mastery of specific competencies and proficiency in the areas of Athletic Care and Prevention of Injuries, Acute Care of Injuries and Illnesses, Risk Management, Specific Injury Management and Game Preparation and Management. Students will be required to work all home athletic events and required practices.
Lecture hrs = 0; lab hrs = 3

KINE 1138  
**Varsity Volleyball II (Activity)**
Participation as a member of an intercollegiate athletic team. Approval for enrollment must be obtained from coach prior to registration.
Prerequisite: KINE 1108
Lecture hrs = 0; lab hrs = 3
Lab fee
KINE 139
Barre Above I (Activity)
Barre Above is a fitness program that blends the latest exercise science with the principles of the Lotte Burke method (the genesis of the Barre movement) delivering a fusion of ballet, pilates, yoga and strength training to the workouts.
Lecture hrs = 0; lab hrs = 3
Lab fee

KINE 1141
Indoor Soccer I (Activity)
Instruction and participation in physical and recreational activities, specifically indoor soccer for this course.
Lecture hrs = 0; lab hrs = 3
Lab fee

KINE 1146
Western Activities I
Physical education for students in rodeo-related activities including steer wrestling, calf roping, barrel racing and bareback riding. Enrollment may be limited by facilities and availability of stock.
Lecture hrs = 0; lab hrs = 3

KINE 1147
Western Activities II
Physical education for students in rodeo-related activities including steer wrestling, calf roping, barrel racing and bareback riding. Enrollment may be limited by facilities and availability of stock.
Prerequisite: KINE 1146
Lecture hrs = 0; lab hrs = 3

KINE 1148
Yoga/Pilates I (Activity)
This course will prepare the student to practice yoga with harmony of the three aspects of body, mind, and spirit, through breath control, yoga postures, and relaxation exercises. You will learn how to use hatha yoga poses to increase flexibility and balance, have more core strength and energy, and feel more relaxed.
Three hours per week.
Lecture hrs = 0; lab hrs = 3

KINE 1150
Aerial Yoga I
This course will assist you in bringing into harmony the three aspects of body, mind, and spirit, through breath control, yoga postures, and visualization. Learn to relieve tension, have more core strength and energy, and feel more relaxed.
Three hours per week.
Lecture hrs = 0; lab hrs = 3

KINE 1164
Introduction to Physical Fitness & Wellness
This course will provide an overview of the lifestyle necessary for fitness and health. Students will participate in physical activities and assess their fitness status. Students will be introduced to proper nutrition, weight management, cardiovascular health, flexibility, and strength training.
Cross-listed as KINE 1168 and KINE 1301
Lecture hrs = 0; lab hrs = 3

KINE 1301
Foundations of Kinesiology
The purpose of this course is to provide students with an introduction to human movement that includes the historical development of physical education, exercise science, and sport. This course offers the student both an introduction to the knowledge base, as well as, information on expanding career opportunities.
Cross-listed as KINE 1164 and KINE 1238
Lecture hrs = 0; lab hrs = 0

KINE 1303
Weight Training III (Activity)
Three hours per week.
Prerequisites: KINE 1103, 1213
Lecture hrs = 0; lab hrs = 3
Lab fee

KINE 1304
Personal/Community Health
This course provides and introduction to the fundamentals, concepts, strategies, applications, and contemporary trends related to understanding personal and/or community health issues. This course also focuses on empowering various populations with the ability to practice healthy living, promote healthy lifestyles, and enhance individual well-being.
Lecture hrs = 3; lab hrs = 0

KINE 1306
First Aid
Instruction and practice for emergency care. Designed to enable students to recognize and avoid hazards within their environment, to render intelligent assistance in case of accident or sudden illness, and to develop skills necessary for the immediate and temporary care of the victim. Successful completion of the course may enable the student to receive a certificate from a nationally recognized agency.
Lecture hrs = 3; lab hrs = 0

KINE 1308
Sports Officiating
The purpose of the course is to study officiating requirements for sports and games with an emphasis on mechanics, rule interpretation, and enforcement. The major sports covered in this course are basketball, volleyball, baseball, softball and football.
Lecture hrs = 3; lab hrs = 0

KINE 1321
Coaching/Sports/Athletics I
Study of the history, theories, philosophies, rules, and terminology of competitive sports. Includes coaching techniques.
Lecture hrs = 3; lab hrs = 0

KINE 1338
Concepts of Physical Fitness
This course is designed to familiarize students with knowledge, understanding and values of health-related fitness and its influence on the quality of life emphasizing the development and implementation of fitness programs.
Lecture hrs = 3; lab hrs = 0

KINE 2100
Varsity Basketball III (Activity)
Participation as a member of an intercollegiate athletic team. Approval for enrollment must be obtained from coach prior to registration.
Prerequisites: KINE 1200, 1230
Lecture hrs = 0; lab hrs = 3
Lab fee

KINE 2101
Varsity Baseball III (Activity)
Participation as a member of an intercollegiate athletic team. Approval for enrollment must be obtained from coach prior to registration.
Prerequisites: KINE 1101, 1131
Lecture hrs = 0; lab hrs = 3
Lab fee

KINE 2103
Weight Training III (Activity)
Three hours per week.
Prerequisites: KINE 1103, 1213
Lecture hrs = 0; lab hrs = 3
Lab fee
KINE 2107
Athletic Training Practicum III
This course consists of directed practical experiences for working with athletes and the physically active population. Third semester students will work toward mastery of specific competencies and proficiencies in the areas of Basic Assessment and Evaluation, Nutrition, Specific Injury Management/Rehabilitation and Game Preparation and Management. Students will be required to work all home athletic events and required practices.
Lecture hrs = 0; lab hrs = 3

KINE 2108
Varsity Volleyball III (Activity)
Participation as a member of an intercollegiate athletic team. Approval for enrollment must be obtained from coach prior to registration.
Prerequisites: KINE 1108, 1138
Lecture hrs = 0; lab hrs = 3
Lab fee

KINE 2111
Body Conditioning II (Activity)
Three hours per week.
Prerequisite: KINE 1111
Lecture hrs = 0; lab hrs = 3
Lab fee

KINE 2116
Zumba Fitness II (Activity)
Three hours per week.
Prerequisite: KINE 1116
Lecture hrs = 0; lab hrs = 3
Lab fee

KINE 2119
Fitness Through Walking II (Activity)
Three hours per week.
Prerequisite: KINE 1119
Lecture hrs = 0; lab hrs = 3
Lab fee

KINE 2125
Horsemanship II (Activity)
Three hours per week.
Prerequisite: KINE 1125
Lecture hrs = 0; lab hrs = 3
Lab fee

KINE 2128
Running & Jogging II (Activity)
This course focuses on the mechanics and development of proper running/jogging technique. Will emphasis a variety of minimal and maximum CO2 activities.
Lecture hrs = 0; lab hrs = 3
Lab fee

KINE 2129
Physical Education Boot Camp II (Activity)
A course emphasizing MAXIMUM calorie burn in the shortest amount of time through a combination of strength, cardio, muscle endurance, flexibility, core, and functional movement patterns.
Lecture hrs = 0; lab hrs = 3
Lab fee

KINE 2130
Varsity Basketball IV (Activity)
Participation as a member of an intercollegiate athletic team. Approval for enrollment must be obtained from coach prior to registration.
Prerequisites: KINE 1100, 1130, 2100
Lecture hrs = 0; lab hrs = 3
Lab fee

KINE 2131
Varsity Baseball IV (Activity)
Participation as a member of an intercollegiate athletic team. Approval for enrollment must be obtained from coach prior to registration.
Prerequisites: KINE 1101, 1131, 2101
Lecture hrs = 0; lab hrs = 3
Lab fee

KINE 2132
Kickboxing II (Activity)
Kickboxing is a fitness program designed to improve muscle tone and cardiovascular endurance through constant motion and repetition using martial arts techniques. A variety of techniques and some martial arts applications are taught.
Lecture hrs = 0; lab hrs = 3
Lab fee

KINE 2133
Weight Training IV (Activity)
Three hours per week.
Prerequisites: KINE 1103, 1113, 2103
Lecture hrs = 0; lab hrs = 3
Lab fee

KINE 2134
Pilates II (Activity)
This course will prepare the student to practice yoga with harmony of the three aspects of body, mind, and spirit, through breath control, yoga postures, and relaxation exercises. You will learn how to use hatha yoga poses to increase flexibility and balance, have more core strength and energy, and feel more relaxed.
Lecture hrs = 0; lab hrs = 3
Lab fee

KINE 2135
Spin II (Activity)
See consistent results while burning a high amount of calories and improving cardiovascular endurance in this non-impact class. Whether you are a beginner or avid cyclist this class is for you because it is modified to include all levels. A certified instructor focuses on fun and challenging rides with steady progressions towards the end of each format. Different rides include but are not limited to: intervals, strength, split rides, race day, combo and variety.
Lecture hrs = 0; lab hrs = 3
Lab fee

KINE 2136
Bungee Fitness II (Activity)
An innovative workout for people of all ages. Resistance provides a unique experience along with cardio and muscle toning at the same time. Class is limited to 8 students, and each student gets their own hip harness for the duration of the lesson. The bungee cord is attached to the back of the harness so students can move and bounce freely. The bungees will assist students in dance and exercise movements, but provide resistance for strengthening and sculpting the muscles.
Lecture hrs = 0; lab hrs = 3; Lab fee: $75
KINE 2137  
**Athletic Training Practicum IV**

This course consists of directed practical experiences for working with athletes and the physically active population. Fourth semester students will work toward mastery of specific competencies and proficiencies in the areas of Basic Assessment and Evaluation, Specific Injury Management/Rehabilitation, and Game Preparation and management. Students will be required to work all home athletic events and required practices.  
Lecture hrs = 0; lab hrs = 3

KINE 2139  
**Barre Above II (Activity)**

Barre Above is a fitness program that blends the latest exercise science with the principles of the Lotte Burke method (the genesis of the Barre movement) delivering a fusion of ballet, pilates, yoga and strength training to the workouts.  
Lecture hrs = 0; lab hrs = 3  
Lab fee

KINE 2141  
**Indoor Soccer II (Activity)**

Instruction and participation in physical and recreational activities, specifically indoor soccer for this course.  
Lecture hrs = 0; lab hrs = 3  
Lab fee

KINE 2146  
**Western Activities III**

Physical education for students in rodeo-related activities including steer wrestling, calf roping, barrel racing and bareback riding. Enrollment may be limited by facilities and availability of stock.  
Prerequisites: KINE 2146, 2147  
Lecture hrs = 0; lab hrs = 3

KINE 2147  
**Western Activities IV**

Physical education for students in rodeo-related activities including steer wrestling, calf roping, barrel racing and bareback riding. Enrollment may be limited by facilities and availability of stock.  
Prerequisites: KINE 2146, 2147, 2146  
Lecture hrs = 0; lab hrs = 3

KINE 2148  
**Yoga/Pilates II (Activity)**

This course will prepare the student to practice yoga with harmony of the three aspects of body, mind, and spirit, through breath control, yoga postures, and relaxation exercises. You will learn how to use hatha yoga poses to increase flexibility and balance, have more core strength and energy, and feel more relaxed.  
Three hours per week.  
Prerequisite: KINE 1148  
Lecture hrs = 0; lab hrs = 3

KINE 2150  
**Aerial Yoga II**

This course will assist you in bringing into harmony the three aspects of body, mind, and spirit, through breath control, yoga postures, and visualization. Learn to relieve tension, have more core strength and energy, and feel more relaxed.  
Three hours per week.  
Prerequisite: KINE 1148  
Lecture hrs = 0; lab hrs = 3

KINE 2356  
**Care and Prevention of Athletic Injuries**

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.  
Lecture hrs = 3; lab hrs = 0

MATH 0300  
**Fundamentals of Mathematics**

The course supports students in developing skills, strategies, and reasoning needed to succeed in mathematics, including communication and appropriate use of technology. Topics include the study of numeracy and the real number system; algebraic concepts, notation, and reasoning; quantitative relationships; mathematical models; and problem solving. Will not meet graduation requirements.  
Co-enrollment in BMAT 0201 – Additional one-hour component required for students with prescribed TSI scores  
Lecture hrs = 3; lab hrs = 0  
Lab fee

MATH 0314  
**Algebraic Foundations**

The course supports students in developing skills, strategies, and reasoning needed to succeed in mathematics, including communication and appropriate use of technology. Topics include the study of numeracy and the real number system; algebraic concepts, notation, and reasoning; quantitative relationships; mathematical models; and problem solving. Will not meet graduation requirements.  
Co-enrollment in MATH 1314 – This intervention provides additional support and is required for students with prescribed TSI scores  
Lecture hrs = 0; lab hrs = 3

MATH 0332  
**Quantitative Reasoning Foundations**

The course supports students in developing skills, strategies, and reasoning needed to succeed in mathematics, including communication and appropriate use of technology. Topics include the study of numeracy and the real number system; algebraic concepts, notation, and reasoning; quantitative relationships; mathematical models; and problem solving. Will not meet graduation requirements.  
Co-enrollment in MATH 1332 – This intervention provides additional support and is required for students with prescribed TSI scores  
Lecture hrs = 0; lab hrs = 3

MATH 0342  
**Statistical Foundations**

The course supports students in developing skills, strategies, and reasoning needed to succeed in mathematics, including communication and appropriate use of technology. Topics include the study of numeracy and the real number system; algebraic concepts, notation, and reasoning; quantitative relationships; mathematical models; and problem solving. Will not meet graduation requirements.  
Co-enrollment in MATH 1342 – This intervention provides additional support and is required for students with prescribed TSI scores  
Lecture hrs = 0; lab hrs = 3

MATH 1314  
**College Algebra**

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.  
Lecture hrs = 3; lab hrs = 0

MATH 1316  
**Plane Trigonometry**

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.  
Lecture hrs = 3; lab hrs = 0

MATH 1324  
**Mathematics for Business & Social Sciences I (Finite Math)**

The application of common algebraic functions, including polynomial, exponential, logarithmic, and rational, to problems in business, economics, and the social sciences are addressed. The applications include mathematics
of finance, including simple and compound interest and annuities, systems of linear equations, matrices; linear programming; and probability, including expected value.
Lecture hrs = 3; lab hrs = 0

MATH 1325
Mathematics for Business & Social Sciences II (Business Calculus)
This course is the basic study of limits and continuity, differentiation, optimization and graphing, and integration of elementary functions, with emphasis on applications in business, economics, and social sciences. This course is not a substitute for MATH 2413 - Calculus I. (The content level of MATH 1325 is expected to be below the content level of Calculus I, MATH 2413.)
Lecture hrs = 3; lab hrs = 0; extended hrs = 1

MATH 1332
Contemporary Mathematics (Quantitative Reasoning)
Intended for Non STEM (Science, Technology, Engineering, and Mathematics) majors. Topics include introductory treatments of sets and logic, financial mathematics, probability and statistics with appropriate applications. Number sense, proportional reasoning, estimation, technology, and communication should be embedded throughout the course. Additional topics may be covered.
Lecture hrs = 3; lab hrs = 0

MATH 1342
Elementary Statistical Methods
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.
Lecture hrs = 3; lab hrs = 0

MATH 1350
Mathematics for Teachers I
This course is intended to build or reinforce a foundation in fundamental mathematics concepts and skills. It includes the conceptual development of the following: sets, functions, number systems, number theory, and properties of the various number systems with an emphasis on problem solving and critical thinking.
Recommended for Elementary Education majors
Prerequisite: Math 1314 - College Algebra or equivalent
Lecture hrs = 3; lab hrs = 0; extended hrs = 0

MATH 1351
Mathematics for Teachers II
This course is intended to build or reinforce a foundation in fundamental mathematics concepts and skills. It includes the concepts of geometry, measurement, probability, and statistics with an emphasis on problem solving and critical thinking.
Prerequisite: Math 1314 - College Algebra or equivalent
Lecture hrs = 3; lab hrs = 0; extended hrs = 0

MATH 2320
Differential Equations
Ordinary differential equations, including linear equations, systems of equations, equations with variable coefficients, existence and uniqueness of solutions, series solutions, singular points, transform methods, and boundary value problems; application of differential equations to real-world problems.
Prerequisite: MATH 2414
Co-requisite: MATH 2415
Lecture hrs = 3; lab hrs = 0

MATH 2413
Calculus I
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 1322
Lecture hrs = 3; lab hrs = 3
Lab fee

MATH 2414
Calculus II
Differentiation and integration of transcendental functions; parametric equations and polar coordinates; techniques of integration; sequences and series; improper integrals.
Prerequisites: MATH 2413
Lecture hrs = 3; lab hrs = 3
Lab fee

MATH 2415
Calculus III
Advanced topics in calculus, including vectors and vector-valued functions, partial differentiation, Lagrange multipliers, multiple integrals and Jacobians; application of the line integral, including Green's Theorem, Divergence Theorem and Stokes' Theorem.
Prerequisite: MATH 2414
Lecture hrs = 3; lab hrs = 3
Lab fee

MDCA 1260
Clinical-Medical/Clinical Assistant
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.
Prerequisites: MDCA 1310, MDCA 1322
Clinical hrs = 244
Lecture hrs = 3; lab hrs = 8
Clinical hrs = 244

MDCA 1305
Medical Law and Ethics
Instruction in principles, procedures, and regulations involving legal and ethical relationships among physicians, patients, and medical assistants in ambulatory care settings.
Lecture hrs = 3; lab hrs = 0

MDCA 1321
Administrative Procedures
Medical office procedures including appointment scheduling, medical records creation and maintenance, interpersonal communications, bookkeeping tasks, coding, billing, collecting, third party reimbursement, credit arrangements, and computer use in the medical office.
Lecture hrs = 3; lab hrs = 0

MDCA 1352
Medical Assistant Laboratory Procedures
Application of governmental health care guidelines. Includes specimen collection and handling, quality assurance and quality control in performance of Clinical Laboratory Improvement Amendments (CLIA)-waived laboratory testing.
Lecture hrs = 2; lab hrs = 4

MDCA 1417
Procedures in a Clinical Setting
Emphasis on patient assessment, examination, and treatment as directed by physician. Includes vital signs, collection and documentation of patient information, asepsis, office clinical procedures, and other treatments as appropriate for ambulatory care settings.
Lecture hrs = 3; lab hrs = 2
MDCA 2264  
Practicum – Medical & Clinical Assistant  
Practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student.  
Prerequisites: PLAB 1223, PLAB 2160, MDCA 2417, MDCA 2448  
Lecture hrs = 1; lab hrs = 8  
Clinical hrs = 240

MLAB 1127  
Coagulation  
A course in coagulation theory, procedures and practical applications. Includes quality control, quality assurance, safety, and laboratory procedures which rely on commonly performed manual and/or semi-automated methods.  
Offered spring only  
Lecture hrs = 1; lab hrs = 1

MLAB 1201  
Introduction to Clinical Laboratory Science  
An introduction to medical laboratory science, structure, equipment and philosophy.  
Offered fall only  
Lecture hrs = 2; lab hrs = 0

MLAB 1211  
Urinalysis and Body Fluids  
An introduction to the study of urine and body fluid analysis. Includes the anatomy and physiology of the kidney, physical, chemical and microscopic examination of urine, cerebrospinal fluid and other body fluids as well as quality control, quality assurance and safety.  
Offered spring only  
Lecture hrs = 1; lab hrs = 4

MLAB 1231  
Parasitology/Mycology  
A study of the taxonomy, morphology and pathogenesis of human parasites and fungi, including the practical application of laboratory procedures, quality control, quality assurance and safety.  
Offered spring only  
Lecture hrs = 2; lab hrs = 4

MLAB 1415  
Hematology  
The study of blood cells in normal and abnormal conditions. Instruction in the theory and practical application of hematology procedures, including quality control, quality assurance, safety, manual and/or automated methods as well as blood cell maturation sequences, and normal and abnormal morphology with associated diseases.  
Offered fall only  
Lecture hrs = 2; lab hrs = 6

MLAB 2161  
Clinical – Clinical/Medical Lab Technician  
Clinical Chemistry  
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.  
Prerequisites: CHEM 1405 or 1411, MLAB 2401  
Lecture hrs = 0; lab hrs = 0; Practicum hrs = 80

MLAB 2162  
Clinical – Clinical/Medical Lab Technician  
Transfusion/Blood Bank  
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.  
Prerequisites: MLAB 1235, MLAB 2431  
Lecture hrs = 0; lab hrs = 0; Practicum hrs = 80

MLAB 2163  
Clinical – Clinical/Medical Lab Technician  
Clinical Microbiology  
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.  
Prerequisites: BIOL 2420, MLAB 2434  
Lecture hrs = 0; lab hrs = 0; Practicum hrs = 80

MLAB 2238  
Advanced Topics in Medical Laboratory Technician/Assistant  
This course examines the integration of all areas of the clinical laboratory and correlates laboratory test data with diagnostic applications and pathophysiology using critical thinking skills.  
Lecture hrs = 1; lab hrs = 4

MLAB 2401  
Clinical Chemistry  
An introduction to the principles, procedures, physiological basis, and significance of testing performed in Clinical Chemistry. Includes quality control, reference values and safety.  
Offered fall only  
Prerequisite: CHEM 1405 or CHEM 1411  
Lecture hrs = 2; lab hrs = 6

MLAB 2431  
Immunohematology  
A study of blood antigens and antibodies. Presents quality control, basic laboratory technique and safety. Includes the principles, procedures, and clinical significance of test results in genetics, blood group systems, pre-transfusion testing, adverse effects of transfusions, donor selection, and components and hemolytic disease of the newborn.  
Offered fall and summer only  
Prerequisites: MLAB 1415, MLAB 1235  
Lecture hrs = 2; lab hrs = 6

MLAB 2434  
Clinical Microbiology  
Instruction in the theory, practical application and pathogenesis of clinical microbiology, including collection, quality control, quality assurance, safety, setup, identification, susceptibility testing and reporting results.  
Prerequisites/Co-requisite: BIOL 2420  
Lecture hrs = 2; lab hrs = 6

MRKG 1311  
Principles of Marketing  
Introduction to the marketing mix functions and process. Includes identification of consumer and organizational needs and explanation of environmental issues.  
Lecture hrs = 3; lab hrs = 0
(MUAP) Applied Music

Individual instruction in voice, instrument, composition, or conducting. Students listed as Music Majors are required to take two 1/2-hour lessons per week in their major emphasis (vocal or instrumental). For each lesson per week, the student is required to practice one hour per day. Practice rooms are provided without charge. Students in APPLIED MUSIC wanting transfer credit must participate in one recital per semester and perform for the music faculty as a final examination. The recital will include both vocal and instrumental students. It will be presented for the public on the Panola College Campus. Private lessons will be taught as instructors are available.

MUAP 11__, 21__, 12__, 22__

Applied Music Private Lessons

The first and second digits of the course number determine freshman or sophomore level. Courses beginning with “1” indicate freshman level and courses beginning with “2” indicate sophomore level. The second digit “1” or “2” indicates the number of 1/2-hour lessons per week. The sequencing for the third and fourth digits is:

A. Instrument
   1. Strings
      a. Violin 01-04
      b. Viola 05-08
      c. Cello 09-12
      d. Bass 13-14
      e. Electric bass 15-16
   2. Woodwind
      a. Flute 17-20
      b. Oboe 21-24
      c. Bassoon 25-28
      d. Clarinet 29-32
      e. Saxophone 33-36
   3. Brass
      a. Trumpet 37-40
      b. Horn 41-44
      c. Trombone 45-48
      d. Euphonium baritone 49-52
      e. Tuba 53-56
   4. Percussion
      57-60
   5. Guitar
      61-64

B. Keyboard/Harp
   1. Organ
      65-68
   2. Piano
      69-72
   3. Electronic keyboard
      73-76
   4. Harp
      77-80

C. Voice
   81-84

D. Improvisation
   85-86

E. Other
   87-99

MUEN 1121, 1122, 2121, 2122

Concert Band

Audition required. Designed to give players an enjoyable and enlightening playing experience. Performs a wide range of music from popular selections to more advanced works for concert band. Presents concerts on campus, plays for athletic events and at various functions in the area. Inquire about college-owned instruments.

Lecture hrs = 0; lab hrs = 6

MUEN 1133, 1132, 2131, 2132

Stage Band

Open to instrumentalists with permission of the band director. Designed to give experience in “pop”, “jazz” and “modern” stage band literature. Travels in the East Texas area performing at high schools, civic functions, etc.

Lecture hrs = 0; lab hrs = 6

MUEN 1141, 1142, 2141, 2142

Chorale

The Chorale performs a wide variety of choral music while emphasizing balanced tonal blend, musical style, vocal techniques and musicianship. Membership is by approval only. The Chorale performs with area symphony orchestras and participates in community events and activities.

Lecture hrs = 0; lab hrs = 5

MUEN 1151, 1152, 2151, 2152

Chamber Singers

A small, auditioned choir specializing in serious choral literature from early Madrigals to 20th century Chamber Music. Emphasis is placed on a cappella singing and performing in languages as well as choral and vocal techniques and musicianship.

Lecture hrs = 0; lab hrs = 3

MUEN 1153, 1154, 2153, 2154

Panola Pipers

A small singing and dancing show choir specializing in entertainment. The Pipers frequently perform for service clubs, schools, hospitals, banquets and other occasions. They tour and travel extensively and are featured annually at the Texas State Fair. Membership is by audition only.

Lecture hrs = 0; lab hrs = 6

MUSI 1116

Sight Singing & Ear Training I (Freshman)

This course covers sight singing, rhythmic, melodic and harmonic dictation within diatonic harmony. This course is required for all music majors.

Co-requisite: MUSI 1111

Lecture hrs = 0; lab hrs = 3

MUSI 1117

Sight Singing & Ear Training II (Freshman)

Singing tonal music in various clefs, continued aural study of the elements of music, and dictation of intermediate rhythm, melody and diatonic harmony.

Prerequisite: MUSI 1116

Co-requisite: MUSI 1112

Lecture hrs = 0; lab hrs = 3

MUSI 1181

Piano Class I

Beginning class instruction in the fundamentals of keyboard technique.

Lecture hrs = 0; lab hrs = 3

Lab fee

MUSI 1182

Piano Class II

Advanced beginning class instruction in the fundamentals of keyboard technique.

Prerequisite: MUSI 1181 or demonstrated competence approved by instructor

Lecture hrs = 0; lab hrs = 3

Lab fee

MUSI 1306

Music Appreciation

Understanding music through the study of cultural periods, major composers and musical elements. Illustrated with audio recordings, videotapes and live performances. This course is designed for the non-music major and is accepted as a “fine arts” requirement for students.

Lecture hrs = 3; lab hrs = 0

MUSI 1307

Music Literature

A survey of the styles and forms of music as it developed from the middle ages to the present. This course will familiarize the student with cultural context, terminology, genres, and notation.

Lecture hrs = 3; lab hrs = 0

MUSI 1311

Music Theory I (Freshman)

The study of analysis and writing of tonal melody and diatonic harmony, including fundamental music concepts, scales, intervals, chords, 7th chords, and early four-part writing. Analysis of small compositional forms. Optional correlated study at the keyboard.

Co-requisite: MUSI 1116

Lecture hrs = 3; lab hrs = 0
MUSI 1312
Music Theory II (Freshman)
The study of analysis and writing of tonal melody and diatonic harmony, including all diatonic chords and seventh chords in root position and inversions, non-chord tones, and functional harmony. Introduction to more complex topics, such as modulation, may occur. Optional correlated study at the keyboard.
Prerequisite: MUSI 1311
Co-requisite: MUSI 1317
Lecture hrs = 0; lab hrs = 0

MUSI 2116
Sight Singing & Ear Training III (Sophomore)
Singing more difficult tonal music in various clefs; aural study including dictation of more complex rhythm, melody, chromatic harmony, and extended tertian structures.
Prerequisite: MUSI 2115
Co-requisite: MUSI 2311
Lecture hrs = 0; lab hrs = 3

MUSI 2117
Sight Singing & Ear Training IV (Sophomore)
Singing advanced tonal music and introduction of modal and post-tonal melodies. Aural study including dictation of advanced rhythm, melody, and harmony.
Prerequisite: MUSI 2116
Co-requisite: MUSI 2312
Lecture hrs = 0; lab hrs = 3

MUSI 2181
Piano Class III
Intermediate class instruction of keyboard technique.
Prerequisite: MUSI 2182 or evidence of intermediate piano skills
Lab fee

MUSI 2182
Piano Class IV
Advanced class instruction of keyboard technique.
Prerequisite: MUSI 2181 or evidence of intermediate piano skills
Lab fee

MUSI 2311
Music Theory III (Sophomore)
Advanced harmony voice leading, score analysis and writing of more advanced tonal harmony including chromaticism and extended-tertian structures. Optional correlated study at the keyboard.
Prerequisite: MUSI 2311 & MUSI 2312
Lecture hrs = 3; lab hrs = 0
Lab fee

MUSI 2312
Music Theory IV (Sophomore)
Continuation of advanced chromaticism and survey of analytical and compositional procedures in post-tonal music. Optional correlated study at the keyboard.
Lecture hrs = 3; lab hrs = 0
Lab fee

NCBI 0101
Non-Course Based Integrated Reading and Writing
Integration of critical reading and academic writing skills. Successful completion of this intervention fulfills TSI requirements for reading and/or writing.
Prerequisite: Placement examination or permission of instructor
Lecture hrs = 0; lab hrs = 1

NCBM 0101
Non-Course Based Intermediate Algebra
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.
Prerequisite: Placement examination or permission of instructor
Lecture hrs = 0; lab hrs = 1

NCBM 0102
Non-Course Based Mathematics
The NCBO supports students in developing skills, strategies, and reasoning needed to succeed in mathematics, including communication and appropriate use of technology. Topics include the study of numeracy and the real number system; algebraic concepts, notation, and reasoning; quantitative relationships; mathematical models; and problem solving.
Prerequisite: Placement examination or permission of instructor
Lecture hrs = 0; lab hrs = 1

NURA 1301
Nurse Aide for Health Care
Knowledge, skills, and abilities essential to provide basic care to residents of long-term care facilities. Topics include resident's rights, communication, safety, observation, reporting and assisting residents in maintaining basic comfort and safety. Emphasis on effective interaction with members of the health care team, restorative services, mental health, and social services needs.
Contact hrs = 112

OSHT 1220
Energy Industrial Safety
An overview for industrial workers of state/federal regulations and guidelines which require industrial safety training. Topics include the 29 CFR 1910, 1926 and National Fire Protection Association (NFPA) 70E standards such as confined space entry, emergency action, lock out/tag out, arc flash, and other work related subjects.
Lecture hrs = 1; lab hrs = 3
Lab fee

OTHA 1260
Clinical II
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.
Co-requisites: OTHA 1405, 1415
Lecture hrs = 0; lab hrs = 6

OTHA 1341
Occupational Performance from Birth through Adolescence
Study of the occupational performance of newborns through adolescents. Includes frames of reference, assessment/evaluation tools and techniques and intervention strategies specific to this population.
Prerequisites: OTHA 1260, 1405, 1415
Co-requisites: OTHA 1260, 2301
Lecture hrs = 2; lab hrs = 3

OTHA 1349
Occupational Performance of Adulthood
Study of occupational performance of adults. Includes frames of reference, assessment/evaluation tools and techniques and intervention strategies specific to this population.
Prerequisites: OTHA 1260, 1341, 1405, 1409, 1415, 2260, 2301, 2335
Co-requisites: OTHA 2262, 2402
Lecture hrs = 2; lab hrs = 2
OTHA 1405
Principles of Occupational Therapy
Introduction to occupational therapy including the historical development and philosophy. Emphasis on the roles of the occupational therapy assistant. Topics include occupation in daily life; education and functions; occupational therapy personnel; current health care environment; and moral, legal and ethical issues.
Co-requisites: OTHA 1260, 1425
Lecture hrs = 2; lab hrs = 2

OTHA 1407
Pathophysiology in Occupational Therapy
Study of the pathology and general health management of diseases and injuries across the lifespan encountered in occupational therapy treatment settings. Topics include etiology, symptoms and the physical and psychological reactions to disease and injury.
Prerequisites: OTHA 1260, 1406, 1413
Co-requisites: OTHA 1341, 2260
Lecture hrs = 3; lab hrs = 2

OTHA 1415
Therapeutic Use of Occupations or Activities I
Explores various occupations or activities used as therapeutic interventions in Occupational Therapy. Emphasizes awareness of activity demands, contexts, adapting, grading and safe implementation of occupations or activities.
Co-requisites: OTHA 1260, 1405
Lecture hrs = 2; lab hrs = 2

OTHA 2230
Workplace Skills for the Occupational Therapy Assistant
Seminar-based course designed to complement Level II fieldwork by creating a discussion forum addressing events, skills, knowledge, and/or behaviors related to the practice environment. Application of didactic coursework to the clinic and test-taking strategies for certification exams.
Prerequisite: OTHA 1260, 1341, 1349, 1405, 1413, 1415, 2260, 2301, 2335, 2402
Co-requisites: OTHA 2260, 2267
Lecture hrs = 2; lab hrs = 2

OTHA 2260
Clinical I
A health-related work-based learning experience that enables the student to apply specialized occupational therapy, skills, and concepts. Direct supervision is provided by the clinical professional.
Prerequisite: OTHA 1260, 1405, 1413
Co-requisites: OTHA 1341, 2301
Lecture hrs = 0; lab hrs = 6

OTHA 2262
Clinical III
A health-related work-based learning experience that enables the student to apply specialized occupational therapy, skills and concepts. Direct supervision is provided by the clinical professional.
Prerequisites: OTHA 2260, 1341, 1349, 1405, 1413, 1415, 2260, 2301, 2335
Co-requisites: OTHA 1349, 2402
Lecture hrs = 2; lab hrs = 2; extended hrs = 6

OTHA 2266
Practicum I (8 weeks)
Practical, general, workplace training supported by an individualized learning plan developed by the employer, college and student.
Prerequisite: OTHA 1260, 1341, 1349, 1405, 1413, 1415, 2260, 2262, 2301, 2335, 2402
Lecture hrs = 0; lab hrs = 0; extended hrs = 21
PHYS 1404
Solar System
Study of the sun and its solar system, including its origin.
Lecture hrs = 3; lab hrs = 3
Lab fee

PHYS 2425
University Physics I
Fundamental principles of physics, using calculus, for science, computer science, and engineering majors; the principles and applications of classical mechanics, including harmonic motion, physical systems and thermodynamics; and emphasis on problem-solving. Includes basic laboratory experiments supporting theoretical principles presented in lecture involving the principles and applications of classical mechanics, including harmonic motion and physical systems; experimental design, data collection and analysis, and preparation of laboratory reports.
Lecture hrs = 3; lab hrs = 3
Lab fee

PHYS 2426
University Physics II
Principles of physics for science, computer science, and engineering majors, using calculus, involving the principles of electricity and magnetism, including circuits, electromagnetism, waves, sound, light, and optics. Includes laboratory experiments supporting theoretical principles presented in lecture involving the principles of electricity and magnetism, including circuits, electromagnetism, waves, sound, light, and optics; experimental design, data collection and analysis, and preparation of laboratory reports.
Lecture hrs = 3; lab hrs = 3
Lab fee

PLAB 1160
Clinical - Phlebotomy/Phlebotomist
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.
Co-requisite: PLAB 1223
Lecture hrs = 0; lab hrs = 3

PLAB 1223
Phlebotomy
Skill development in the performance of a variety of blood collection methods using proper techniques and standard precautions. Includes vacuum collection devices, syringes, capillary skin puncture, butterfly needles and blood culture, and specimen collection on adults, children, and infants. Emphasis on infection prevention, patient identification, specimen labeling, quality assurance, specimen handling, processing, accessioning, professionalism, ethics, and medical terminology.
Co-requisite: PLAB 1160
Lecture hrs = 2; lab hrs = 2

POFI 1449
Spreadsheets
Skill development in concepts, procedures, and application of spreadsheets. This course is designed to be repeated multiple times to improve student proficiency.
Lecture hrs = 3; lab hrs = 3
Lab fee

POFI 2401
Word Processing
Word processing software focusing on business applications. This course is designed to be repeated multiple times to improve student proficiency.
Lecture hrs = 3; lab hrs = 3
Lab fee

POFI 2431
Desktop Publishing
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: POFI 1429 or POFI 2401 or approval of instructor
Lecture hrs = 3; lab hrs = 3
Lab fee

POFT 1301
Business English
Introduction to a practical application of basic language usage skills with emphasis on fundamentals of writing and editing for business.
Lecture hrs = 3; lab hrs = 0

POFT 1309
Administrative Office Procedures I
Study of current office procedures, duties, and responsibilities applicable to an office environment.
Lecture hrs = 3; lab hrs = 0

POFT 1321
Business Math
Fundamentals of business mathematics including analytical and critical thinking skills.
Lecture hrs = 2; lab hrs = 4

POFT 1329
Beginning Keyboarding
Skill development in keyboarding techniques. Emphasis on development of acceptable speed and accuracy levels and formatting basic documents.
Lecture hrs = 2; lab hrs = 4
Lab fee

POFT 2301
Intermediate Keyboarding
A continuation of keyboarding skills emphasizing acceptable speed and accuracy levels and formatting documents.
Prerequisite: POFT 1429 or approval of instructor
Lecture hrs = 2; lab hrs = 4
Lab fee

PSYC 1100
Learning Framework (cross-listed as EDUC 1100)
A study of the 1) research and theory in the psychology of learning, cognition, and motivation, 2) factors that impact learning, and 3) 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. Students developing these skills should be able to continually draw from the theoretical models they have learned.
Lecture hrs = 3; lab hrs = 0
PSYC 2301
General Psychology
General Psychology is a survey of the major psychological topics, theories and approaches to the scientific study of behavior and mental processes.
Prerequisite: TSI Reading complete
Lecture hrs = 3; lab hrs = 0

PSYC 2314
Lifespan Growth & Development
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: TSI Reading complete and PSYC 2301
Lecture hrs = 3; lab hrs = 0

PTRT 1170
Natural Gas Processing
An overview of natural gas processing operations. Topics include fundamentals of gas processing, the scientific principles and how they apply to the process, processing equipment, and procedures.
Lecture hrs = 0; lab hrs = 3
Lab fee

PTRT 1170
Energy Sector Math and Computer Skills
Computer and math applications that are used in the petroleum industry will be discussed.
Lecture hrs = 0; lab hrs = 3
Lab fee

PTRT 1270
Petroleum Regulations
Regulatory requirements and structures associated with the petroleum industry.
Lecture hrs = 2; lab hrs = 3
Lab fee

PTRT 1324
Petroleum Instrumentation
Study of instruments, instrument systems, terminology, process variables, and control loops as used in a petroleum environment.
Lecture hrs = 2; lab hrs = 4
Lab fee

PTRT 1317
Natural Gas Production
An overview of the aspects of natural gas and oil production including various aspects of hydrocarbon production, processing equipment, and gas compression/transportation systems.
Lecture hrs = 0; lab hrs = 3
Lab fee

RNSG 1108
Dosage Calculations for Nursing
Read, interpret, and solve dosage calculation problems. This course lends itself to either a blocked or integrated approach.
Lecture hrs = 3; lab hrs = 0

RNSG 1118
Transition to Professional Nursing Competencies
Transition to professional nursing competencies in the care of patients throughout the lifespan. Validates proficiency in psychomotor skills and clinical reasoning in the performance of nursing procedures related to the concepts of: clinical judgment, comfort, elimination, fluid and electrolytes, nutrition, gas exchange, safety, functional ability, immunity, metabolism, mobility, and tissue integrity. Includes health assessment and medication administration. This course lends itself to a concept-based approach.
Prerequisite: Acceptance into the LVN-RN Hybrid Transition Program
Co-requisites: RNSG 1128, 1163, 1324
Lecture hrs = 0; lab hrs = 4
Lab fee

RNSG 1125
Professional Nursing Concepts I
Introduction to professional nursing concepts and exemplars within the professional nursing roles: member of profession, provider of patient-centered care, patient safety advocate, and member of the health care team.
Content includes clinical judgment, communication, ethical-legal, evidenced-based practice, health promotion, health information technology, patient-centered care, patient education, professionalism, safety, and team/collaboration. Emphasizes role development of the professional nurse.
This course lends itself to a concept-based approach.
Prerequisite: Acceptance into the ADN Program
Co-requisites: RNSG 1430, 1128, 1216, 1160
Lecture hrs = 1; lab hrs = 0

RNSG 1126
Professional Nursing Concepts II
Expanding professional nursing concepts and exemplars within the professional nursing roles. Applying concepts of clinical judgment, ethical-legal, evidence-based practice, patient-centered care, professionalism, safety, and team/collaboration to the exemplars presented in the Health Care Concepts II course. Introduces concepts of leadership and management. Emphasizes role development of the professional nurse. This course lends itself to a concept-based approach.
Prerequisites: Level 1 ADN
Co-requisites: RNSG 2266, 1313
Lecture hrs = 1; lab hrs = 0

RNSG 1128
Introduction to Health Care Concepts
An introduction to concept-based learning with emphasis on selected pathophysiological concepts with nursing applications. Concepts include acid-base balance, fluid and electrolytes, immunity, gas exchange, perfusion, metabolism, coping, and tissue integrity. This course lends itself to a concept-based approach.
Prerequisite: Acceptance into the ADN Program
Co-requisites: RNSG 1430, 1128, 1216, 1166 or 1128, 1163, 1324
Lecture hrs = 1; lab hrs = 0

RNSG 1137
Professional Nursing Concepts III
Application of professional nursing concepts and exemplars within the professional nursing roles. Utilizes concepts of clinical judgment, ethical-legal, evidenced-based practice, patient-centered care, professionalism, safety, teamwork and collaboration. Introduces the concepts of quality improvement, health information technology, and health care organizations. Incorporates concepts into role development of the professional nurse. This course lends itself to a concept-based approach.
Prerequisites: ADN Level II or Semester I of LVN-RN Hybrid
Co-requisites: RNSG 1128, 2262
Lecture hrs = 1; lab hrs = 0
RNSG 1160
Clinical – Registered Nursing/Registered Nurse
A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts for ADN Level I. Direct supervision is provided by the clinical professional.
Prerequisites: Acceptance into the ADN Program
Co-requisites: RNSG 1430, 1128, 1226, 1125
Lecture hrs = 0; lab hrs = 0; extended hrs = 4
Lab fee

RNSG 1163
Clinical – Registered Nursing/Registered Nurse
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.
Prerequisites: Acceptance into the LVN-RN Hybrid Transition Program
Co-requisites: RNSG 1116, 1128, 1125
Lecture hrs = 0; lab hrs = 0; extended hrs = 4

RNSG 1193
Special Topics in Nursing (Prescribed Elective)
Topics address recently identified current events, skills, knowledge, and/or attitudes and behaviors pertinent to the technology or occupation and relevant to the professional development of the student.
Prerequisite: Good standing in ADN program and/or approval of instructor
Lecture hrs = 1; lab hrs = 0

RNSG 1216
Professional Nursing Competencies
Development of professional nursing competencies in the care of patients throughout the lifespan. Emphasizes psychomotor skills and clinical reasoning in the performance of nursing procedures related to the concepts of: clinical judgment, comfort, elimination, fluid and electrolytes, nutrition, gas exchange, safety, functional ability, immunity, metabolism, mobility, and tissue integrity. Includes health assessment and medication administration.
This course lends itself to a concept-based approach.
Prerequisite: Acceptance into the ADN Program
Co-requisites: RNSG 1430, 1128, 1125, 1160
Lecture hrs = 0; lab hrs = 8
Lab fee

RNSG 1324
Concept-Based Transition to Professional Nursing Practice
Integration of previous health care knowledge and skills into the role development of the professional nurse as a provider of patient-centered care, patient safety advocate, member of health care team, and member of the profession. Emphasis is on clinical decision-making for patients and their families. Review of selected health care and professional nursing concepts with application through exemplars. Health care concepts include comfort, diversity, elimination, functional ability, human development, mobility, nutrition, sensory perception, sleep, coping, thermoregulation, tissue integrity, acid-base balance, clotting, cognition, fluid and electrolyte balance, gas exchange, immunity, metabolism, nutrition, and tissue integrity. Includes health assessment and medication administration.
This course lends itself to a concept-based approach.
Prerequisite: Acceptance into the ADN Program
Co-requisites: RNSG 1430, 1128, 1125
Lecture hrs = 2; lab hrs = 4
Lab fee

RNSG 1430
Health Care Concepts I
In-depth coverage of foundational health care concepts with application through selected exemplars. Concepts include comfort, diversity, elimination, functional ability, human development, mobility, nutrition, sensory perception, sleep, thermoregulation, grief, and tissue integrity. Emphasizes development of clinical judgment skills in the beginning nurse. This course lends itself to a concept-based approach.
Prerequisite: Acceptance into the ADN Program
Co-requisites: RNSG 1126, 1128, 1125, 1160
Lecture hrs = 3; lab hrs = 4
Lab fee

RNSG 1533
Health Care Concepts II
In-depth coverage of health care concepts with application through selected exemplars. Concepts include acid-base balance, coping, clotting, cognition, fluid and electrolytes, gas exchange, immunity, metabolism, nutrition, comfort, and perfusion. Provides continuing opportunities for development of clinical judgment skills. This course lends itself to a concept-based approach.
Prerequisites: ADN Level I
Co-requisites: RNSG 1126, 1261
Lecture hrs = 4; lab hrs = 4
Lab fee

RNSG 1538
Health Care Concepts III
In-depth coverage of health care concepts with nursing application through selected exemplars. Concepts include cellular regulation, end of life, immunity, interpersonal relationships, grief, human development, intracranial regulation, mood/affect, comfort, sexuality, mobility, and reproduction. Provides continuing opportunities for development of clinical judgment skills. This course lends itself to a concept-based approach.
Prerequisites: ADN Level II or Semester I of LVN-RN Hybrid
Co-requisites: RNSG 1137, 1162
Lecture hrs = 4; lab hrs = 4
Lab fee

RNSG 2113
Professional Nursing Concepts IV
Integration of professional nursing concepts and exemplars within the professional nursing roles. Synthesizes concepts of clinical judgment, ethical-legal, evidence-based practice, leadership and management, patient-centered care, professionalism, teamwork, and collaboration through exemplars presented in the Health Care Concepts courses. Emphasizes concept of quality improvement and introduces health policy. Incorporates concepts into role development of the professional nurse. This course lends itself to a concept-based approach.
Prerequisites: ADN Level III or Semester II of LVN-RN Hybrid
Co-requisites: RNSG 2230, 2363, 2393
Lecture hrs = 1; lab hrs = 0

RNSG 2230
Professional Nursing: Review and Licensure Preparation
Review of concepts required for licensure examination and entry into the practice of professional nursing. Includes application of National Council Licensure Examination for Registered Nurses (NCLEX-RN) test plan, assessment of knowledge deficits and remediation. This course lends itself to either a blocked or integrated approach.
Prerequisites: ADN Level III or Semester II of LVN-RN Hybrid
Lecture hrs = 1; lab hrs = 3

RNSG 2261
Clinical – Registered Nursing/Registered Nurse
A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts for ADN Level II. Direct supervision is provided by the clinical professional.
Prerequisites: ADN Level I
Co-requisites: RNSG 1126, 1533
Lecture hrs = 0; lab hrs = 12
Lab fee
### RNSG 2262
**Clinical – Registered Nursing/Registered Nurse**
A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts for ADN Level III. Direct supervision is provided by the clinical professional.
*Prerequisites:* ADN Level II or Semester I of LVN-RN Hybrid
*Co-requisites:* RNSG 2237, 1538
*Lecture hrs = 3; lab hrs = 12*
*Lab fee*

### RNSG 2363
**Clinical – Registered Nursing/Registered Nurse**
A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts for ADN Level IV. Direct supervision is provided by the clinical professional. This course is the capstone experience for the ADN program. The final clinical performance measure ensures graduates are prepared to function as a novice professional nurse.
*Prerequisites:* ADN Level III or Semester II of LVN-RN Hybrid
*Co-requisites:* RNSG 2318, 2230, 2339
*Lecture hrs = 3; lab hrs = 12*
*Lab fee*

### RNSG 2539
**Health Care Concepts IV**
In-depth coverage of advanced health care concepts with nursing application through selected exemplars. Concepts include, cognition, immunity, clotting, fluid and electrolyte balance, gas exchange, metabolism, nutrition, perfusion, tissue integrity, and interpersonal relationships. Continuing development of clinical judgment with integration of all health care concepts. This course lends itself to a concept-based approach.
*Prerequisites:* ADN Level III or Semester II of LVN-RN Hybrid
*Co-requisites:* RNSG 2318, 2230, 2363
*Lecture hrs = 3; lab hrs = 3*
*Lab fee*

### SCIT 1270
**Petroleum Chemistry**
The overall purpose of this course is to provide students with an understanding of Petroleum Chemistry and the skills needed for successful employment. The course is primarily focused on the oil and gas sector of the petroleum industry. The skills include knowledge of chemical composition, properties of petroleum (oil and gas), petroleum products and alternative fuels. Hands on skills, behaviors and attitudes are demonstrated in the laboratory and/or in the oil-gas field (work site), as testing techniques are taught, developed and mastered. The team oriented learning environment in the laboratory provides further professional development for the student. The course will also review the chemical basis for the most important production processes.
*Lecture hrs = 1; lab hrs = 4*

### SOCI 1301
**Introductory Sociology**
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.
*Lecture hrs = 3; lab hrs = 0*

### SPAN 1411
**Beginning Spanish I**
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.
*Lecture hrs = 3; lab hrs = 3*
*Lab fee*

### SPAN 1412
**Beginning Spanish II**
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 or high school Spanish
*Lecture hrs = 3; lab hrs = 3*
*Lab fee*

### SPAN 2311
**Intermediate Spanish I**
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.
*Prerequisites: SPAN 1412, 1412 and/or two years of high school Spanish
*Lecture hrs = 3; lab hrs = 0*

### SPAN 2312
**Intermediate Spanish II**
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 or the equivalent
*Lecture hrs = 3; lab hrs = 0*

### SPCH 1315
**Public Speaking**
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.
*Lecture hrs = 3; lab hrs = 0*

### SPCH 1318
**Interpersonal Communication**
Application of communication theory to interpersonal relationship development, maintenance, and termination in relationship contexts including friendships, romantic partners, families, and relationships with coworkers and supervisors.
*Lecture hrs = 3; lab hrs = 0*

### VNSG 1191
**Special Topics in Nursing (Prescribed Elective)**
Topics address recently identified current events, skills, knowledge, and/or attitudes and behaviors pertinent to the technology or occupation and relevant to the professional development of the student.
*Prerequisite: Good standing in the VN program and/or approval of instructor
*Lecture hrs = 1; lab hrs = 0*

### VNSG 2219
**Leadership and Professional Development**
Study of the importance of professional growth. Topics include the role of the licensed vocational nurse in the multi-disciplinary health care team, professional organizations, and continuing education.
*Prerequisite: Successful completion of Semester II VN program
*Lecture hrs = 2; lab hrs = 0*

### VNSG 2226
**Gerontology**
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.
*Prerequisite: Admission to VN program
*Lecture hrs = 2; lab hrs = 0*
VNSG 1230
Maternal-Neonatal Nursing
A study of the biological, psychological and sociological concepts applicable to 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.
Prerequisites: Successful completion of Semester I VN program
Co-requisites: VNSG 2409, 1234, 1360
Lecture hrs = 2; lab hrs = 0

VNSG 1233
Pediatrics
Study of the care of the pediatric patient and family during health and disease. Emphasis on growth and development needs utilizing the nursing process. Prerequisites: Successful completion of Semester I VN program
Co-requisites: VNSG 2409, 1234, 1360
Lecture hrs = 2; lab hrs = 0

VNSG 1261
Clinical I – Licensed Practical/Vocational Nurse Training
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.
Prerequisites: Admission to VN program
Co-requisites: VNSG 2304, 1400, 1233, 1226
Lecture hrs = 0; lab hrs = 0; extended hrs = 10
Lab fee

VNSG 1304
Foundations in Nursing
Introduction to the nursing profession including history, standards of practice, legal and ethical issues, and role of the vocational nurse. Topics include mental health, therapeutic communication, cultural and spiritual diversity, nursing process and holistic awareness.
Prerequisites: Admission to VN program
Co-requisites: VNSG 1323, 1400, 1226, 1261
Lecture hrs = 3; lab hrs = 0

VNSG 1323
Basic Nursing Skills
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.
Prerequisites: Admission to VN program
Co-requisites: VNSG 2304, 1400, 1226, 1262
Lecture hrs = 1; lab hrs = 4
Lab fee

VNSG 1360
Clinical II – Licensed Practical/Vocational Nurse Training
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.
Prerequisite: Successful completion of Semester I VN program
Co-requisites: VNSG 2234, 1409, 1231
Lecture hrs = 0; lab hrs = 0; extended hrs = 23
Lab fee

VNSG 1400
Nursing in Health and Illness I
Introduction to general principles of growth and development, primary health care needs of the patient across the life span, and therapeutic nursing interventions.
Prerequisite: Admission to VN program
Co-requisites: VNSG 1304, 1233, 1262, 1226
Lecture hrs = 4; lab hrs = 1

VNSG 1409
Nursing in Health and Illness II
Introduction to health problems requiring medical and surgical interventions.
Prerequisite: Successful completion of Semester I VN program
Co-requisites: VNSG 2231, 1234, 1360
Lecture hrs = 2; lab hrs = 6

VNSG 2430
Nursing in Health and Illness III
Continuation of Nursing in Health and Illness II. Further study of medical-surgical health problems of the patient including concepts such as mental illness. Incorporates knowledge necessary to make the transition from student to graduate vocational nurse.
Prerequisite: Successful completion of Semester II VN program
Co-requisites: VNSG 2260, 1230, 1229, 2360
Lecture hrs = 4; lab hrs = 1

VNSG 2260
Clinical III – Licensed Practical/Vocational Nurse Training
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.
Prerequisite: Successful completion of Semester II VN program
Co-requisites: VNSG 2360, 1230, 1226
Lecture hrs = 0; lab hrs = 0; extended hrs = 10

VNSG 2360
Clinical IV – Licensed Practical/Vocational Nurse Training
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. This course is the capstone course for the VN program. The final clinical performance measure ensures graduates are prepared to function as a novice vocational nurse.
Prerequisite: Successful completion of Semester II VN program
Co-requisites: VNSG 2260, 1230, 2410, 1219
Lecture hrs = 0; lab hrs = 0; extended hrs = 14

WLDG 1200
Introduction to Welding
Equipment used in oxy-fuel and arc welding. Includes cutting of ferrous metals. Emphasizes welding and cutting safety and basic welding processes.
Lecture hrs = 1; lab hrs = 3

WLDG 1270
Basic Layout and Fabrication
A fundamental course in layout and fabrication related to the welding industry. Major emphasis on structural shapes and use in construction.
Lecture hrs = 2; lab hrs = 3

WLDG 1417
Layout & Fabrication
A fundamental course in layout and fabrication related to the welding industry. Major emphasis on structural shapes and use in construction.
Lecture hrs = 3; lab hrs = 2

WLDG 1423
Welding Safety, Tools, and Equipment
An introduction to welding equipment and safety practices, including OSHA standards for industry.
Lecture hrs = 4; lab hrs = 0
WLDG 1428
Introduction to Shielded Metal Arc Welding (SMAW)
An introduction to the shielded metal arc welding process. Emphasis placed on power sources, electrode selection, and various joint designs.
Lecture hrs = 3; lab hrs = 2

WLDG 1430
Introduction to Gas Metal Arc Welding (GMAW)
A study of the principles of gas metal arc welding, setup and use of Gas Metal Arc Welding (GMAW) equipment and safe use of tools and equipment. Instruction in various joint designs.
Lecture hrs = 3; lab hrs = 2

WLDG 1436
Introduction to Gas Tungsten Arc Welding (GTAW)
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.
Lecture hrs = 3; lab hrs = 2

WLDG 1435
Introduction to Pipe Welding
An introduction to welding of pipe using the shielded metal arc welding process (SMAW), including electrode selection, equipment setup, and safe shop practices. Emphasis on weld positions and electrodes.
Lecture hrs = 3; lab hrs = 2

WLDG 1457
Intermediate Shielded Metal Arc Welding (SMAW)
A study of the production of various fillets and groove welds. Preparation of specimens for testing in various positions.
Lecture hrs = 3; lab hrs = 2

WLDG 2370
Intermediate Pipe Welding
A comprehensive course on the welding of pipe using the shielded metal arc welding (SMAW) and/or other processes. Welds will be done using various positions. Topics covered include electrode selection, equipment setup, and safe shop practices.
Lecture hrs = 2; lab hrs = 3

WLDG 2443
Advanced Shielded Metal Arc Welding (SMAW)
Advanced topics based on accepted welding codes. Training provided with various electrodes in shielded metal arc processes with open V-groove joints in various positions.
Lecture hrs = 3; lab hrs = 2

WLDG 2453
Advanced Gas Tungsten Arc Welding (GTAW)
Advanced topics in GTAW welding, including welding in various positions and directions.
Lecture hrs = 3; lab hrs = 2

WLDG 2453
Advanced Pipe Welding
Advanced topics involving welding of pipe using the shielded metal arc welding (SMAW) process. Topics include electrode selection, equipment setup and safe shop practices. Emphasis on weld positions 5G and 6G using various electrodes.
Lecture hrs = 3; lab hrs = 2

WMGT 1271
Management & Biology of Whitetail Deer
This course provides an overview of the basic principles of white-tailed deer management, including nutrition, age, genetics, and proper harvest. You also will learn how there are critical aspects of managing deer herds: populations, habitat, and people.
Lecture hrs = 1; lab hrs = 4

WMGT 1170
Wild Pig Management & Control
This course deals with wild pig management for landowners, land managers, and others seeking information in order to abate damage caused by wild pigs.
Lecture hrs = 0; lab hrs = 4