COURSE DESCRIPTIONS

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.

Panola College uses the Texas Common Course Numbering System (TCCN) and Workforce Education Course Manual (WECM)

<table>
<thead>
<tr>
<th>TCCN</th>
<th>WECM*</th>
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<tbody>
<tr>
<td>Four-letter course prefix</td>
<td>ENGL</td>
</tr>
<tr>
<td>Four-digit number</td>
<td>1301</td>
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<tr>
<td>Level</td>
<td>1xxx</td>
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<tr>
<td>1=freshman</td>
<td></td>
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<tr>
<td>2=sophomore</td>
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<tr>
<td>Number of course</td>
<td>x3xx</td>
</tr>
<tr>
<td>Sequence of course</td>
<td>xx01</td>
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</table>

*WECM courses are underlined in the course descriptions.

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.

### EXPLANATION OF ITEMS IN COURSE DESCRIPTION

- **Course prefix**: HIST
- **Course number**: 1301
- **Course title**: U.S. History I
- **Course description**: General description of the course from the ACGM or WECM
- **Semester hour credit**: HIST 1301
- **Lecture hrs**: Number of lecture hours required per week in this class
- **Lab hrs**: Number of lab hours required per week in this class
- **Extended hrs or Clinical hrs**: Hours students are responsible for other than lecture or lab—see instructor and class syllabus for more details.
- **Prerequisite**: A course that must be completed before taking this course
- **Co-requisite**: A course that can be taken at the same time as this course
- **Lab fee**: Additional fee for this course
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

AGCT 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

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 = 4

AGMG 1264 Practicum Farm/Ranch
Practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student.
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 = 1

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 = 1

AGRI 2337
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 further 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 further 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 further the study of the technical and conceptual basics of photography as a creative medium.
Cross-listed with journalism emphasis as COMM 1319
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 2324 or MATH 2314  
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 1112 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 = 2; 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 1331**  
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
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Description</th>
<th>Lecture Hrs</th>
<th>Lab Hrs</th>
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<tbody>
<tr>
<td>CRIJ 2313</td>
<td>Correctional Systems &amp; Practices</td>
<td>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</td>
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<tr>
<td>CRIJ 2314</td>
<td>Criminal Investigation</td>
<td>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</td>
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<tr>
<td>CRIJ 2328</td>
<td>Police Systems &amp; Practice</td>
<td>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</td>
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<tr>
<td>CSME 1248</td>
<td>Principles of Skin Care</td>
<td>An introduction of the theory and practice of skin care. Lecture hrs = 2; lab hrs = 4 Lab fee</td>
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<tr>
<td>CSME 1354</td>
<td>Artistry of Hair Design I</td>
<td>Introduction to hair design. Topics include the theory and applications of wet styling, thermal hair styling, and finishing techniques. Lecture hrs = 2; lab hrs = 6 Lab fee</td>
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<tr>
<td>CSME 1401</td>
<td>Orientation</td>
<td>An overview of the skills and the knowledge necessary for the field of cosmetology. Lecture hrs = 2; lab hrs = 6 Lab fee</td>
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<td>CSME 1405</td>
<td>Fundamentals of Cosmetology</td>
<td>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</td>
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<tr>
<td>CSME 1430</td>
<td>Orientation to Nail Technology</td>
<td>An overview of the fundamental skills and knowledge necessary for the field of nail technology. Lecture hrs = 2; lab hrs = 8 Lab fee</td>
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<tr>
<td>CSME 1431</td>
<td>Principles of Nail Technology I</td>
<td>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</td>
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<tr>
<td>CSME 1434</td>
<td>Cosmetology Instructor I</td>
<td>The fundamentals of instructing cosmetology students. Prerequisite: Valid Texas Department of Licensing and Regulation license and high school diploma or GED &amp; CSME 1435 Lecture hrs = 2; lab hrs = 8 Lab fee</td>
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<tr>
<td>CSME 1435</td>
<td>Orientation to the Instruction of Cosmetology</td>
<td>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</td>
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<tr>
<td>CSME 1441</td>
<td>Principles of Nail Technology II</td>
<td>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</td>
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<tr>
<td>CSME 1443</td>
<td>Manicuring and Related Theory</td>
<td>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</td>
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<tr>
<td>CSME 1453</td>
<td>Chemical Reformation and Related Theory</td>
<td>Presentation of the theory and practice of chemical reformation including terminology, application, and workplace competencies. Lecture hrs = 2; lab hrs = 6 Lab fee</td>
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<tr>
<td>CSME 2204</td>
<td>Introduction to the Theory and Chemistry of Hair Color</td>
<td>The introduction of basic theory and chemistry of hair color. Topics include the Law of Color, terminology and chemical composition of hair color products. Lecture hrs = 1; lab hrs = 3 Lab fee</td>
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<tr>
<td>CSME 2401</td>
<td>The Principles of Hair Coloring and Related Theory</td>
<td>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 = 6 Lab fee</td>
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<tr>
<td>CSME 2414</td>
<td>Cosmetology Instructor II</td>
<td>A continuation of the fundamentals of instructing cosmetology students. Lecture hrs = 2; lab hrs = 8 Lab fee</td>
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<tr>
<td>CSME 2430</td>
<td>Nail Enhancement</td>
<td>A course in the theory, application, and related technology of nail enhancements. Prerequisite: CSME 1441 Lecture hrs = 2; lab hrs = 8 Lab fee</td>
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CSME 2449
Advanced Hair Design
Advanced concepts in the theory and practice of hair design.
Lecture hrs = 2; lab hrs = 5
Lab fee

CSME 2444
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 R 3316
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 exploration 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

DRAM 2336
Voice for the Actor
Principles, practices, and exercises in awareness, relaxation, freedom, flexibility, and expressiveness in the actor’s vocal instrument.
Lecture hrs = 3; lab hrs = 0

DRAM 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 COMM 2366
Lecture hrs = 3; lab hrs = 3
ECON 2301
Principles of Macroeconomics
An analysis of the economy as a whole including measurement and determination of Aggregate Demand and Aggregate Supply, national income, inflation and unemployment. Other topics include international trade, economic growth, business cycles and fiscal policy and monetary policy.
Lecture hrs = 3; lab hrs = 0

ECON 2302
Principles of Microeconomics
Analysis of the behavior of individual economic agents, including consumer behavior and demand, producer behavior and supply, price and output decisions by firms under various market structures, factor markets, market failures and international trade.
Lecture hrs = 3; lab hrs = 0

EDUC 1100
Learning Framework (cross-listed as PSYC 1100)
A study of the research and theory in the psychology of learning, cognition, and motivation; factors that impact learning, and application of learning strategies. Theoretical models of strategic learning, cognition, and motivation serve as the conceptual basis for the introduction of college-level student academic strategies. Students use assessment instruments (e.g., learning inventories) to help them identify their own strengths and weaknesses as strategic learners. Students are ultimately expected to integrate and apply the learning skills discussed across their own academic programs and become effective and efficient learners. Students developing these skills should be able to continually draw from the theoretical models they have learned.
Lecture hrs = 3; lab hrs = 0

EDUC 1301
Introduction to the Teaching Profession
An enriched, integrated pre-service course and content experience that provides active recruitment and institutional support of students interested in a teaching career, especially in high need fields. The course provides students with opportunities to participate in early field observations at all levels of P-12 schools with varied and diverse student populations and provides students with support from college and school faculty, preferably in small cohort groups, for the purpose of introduction to and analysis of the culture of schooling and classrooms. Course content should be aligned as applicable with State Board for Educator Certification Pedagogy and Professional Responsibilities standards. Course must include a minimum of 16 contact hours of field experience in P-12 classrooms.
Lecture hrs = 3; lab hrs = 0; field experience hrs = 1

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 26 contact hours of field experience in P-12 classrooms with special populations.
Prerequisite: EDUC 1301
Lecture hrs = 3; lab hrs = 0; field experience hrs = 2

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 = 4
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

ELPT 1311
Basic Electrical Theory
Basic theory and practice of electrical circuits. Includes calculations as applied to alternating and direct current.
Lecture hrs = 2; lab hrs = 3
Lab fee

ELPT 1325
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 1341
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.
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

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 2143  
Assessment Based Management  
A capstone course covering comprehensive assessment based patient care management. Includes specific care when dealing with pediatric, adult, geriatric and special-needs patients.  
Lecture hrs = 2; lab hrs = 2  
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 = 2  
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 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 = 2  
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 = 3; 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

ENER 1375  
Introduction to Mechanical Engines  
Fundamentals of engine operation, engine diagnosis and engine repair. Emphasis on identification, inspection, measurements 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 1302—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 2322
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 2323
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

GEOG 1303
World Regional Geography
This course is an introduction to the world’s major regions seen through their defining physical, social, cultural, political, and economic features. These regions are examined in terms of their physical and human characteristics and their interactions. The course emphasizes relations among regions on issues such as trade, economic development, conflict, and the role of regions in the globalization process.
Lecture hrs = 3; lab hrs = 0

GEOL 1403
Physical Geology
This lecture and lab course should combine all of the elements of GEOL 1303 Physical Geology (lecture) and GEOL 1103 Physical Geology (lab), including the learning outcomes listed for both courses.
Pre-requisite: TSI Reading complete
Lecture hrs = 3; lab hrs = 3
Lab fee

GEOL 1404
Historical Geology
This lecture and lab course should combine all of the elements of GEOL 1304 Historical Geology (lecture) and GEOL 1104 Historical Geology (lab), including the learning outcomes listed for both courses.
Pre-requisite: TSI Reading complete
Lecture hrs = 3; lab hrs = 3
Lab fee

GISC 1270
Introduction to Geographic Information Systems (GIS)
Introduction to basic concepts of vector GIS using several industry specific software programs including nomenclature of cartography and geography.
Lecture hrs = 1; lab hrs = 4
Lab fee

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 = 3; lab hrs = 3
Lab fee

HEMR 1304
Natural Gas Compression
An introductory course in the principles of operation of gas compressors and natural gas engines.
Lecture hrs = 2; 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 = 2
Lab fee

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
Lab fee

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 1301
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 = 2; lab hrs = 4
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 2342**  
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 2345**  
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 2353**  
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  
Fall semester only

**HITT 2361**  
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 1301, 1345, 1353  
Lecture hrs = 3; lab hrs = 0; clinical hrs = 160  
Fall semester only

**HITT 2441**  
Coding and Classification Systems  
Fundamentals of coding rules, conventions, and guidelines using clinical classification systems.  
Prerequisite or co-requisite: BIOL 2404  
Lecture hrs = 3; lab hrs = 0  
Fall semester only

**HITT 2460**  
Advanced Medical Billing and Reimbursement  
Skill development in coding to prepare reimbursement forms in various health care settings for submission to payors.  
Prerequisites: HITT 2345, 2346  
Co-requisite: HITT 2346  
Lecture hrs = 3; lab hrs = 0  
Spring semester only

**HITT 2465**  
Coding Certification Exam Review  
Review of coding competencies and skills in preparation for a coding certification exam.  
Prerequisites: HITT 2305, 2441, 2404  
Co-requisite: HITT 2346  
Lecture hrs = 3; lab hrs = 0  
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 2363**  
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 2345, 2301  
Lecture hrs = 3; lab hrs = 0  
Spring semester only

**HITT 2366**  
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 2305, 2441  
Co-requisite: HITT 2342  
Lecture hrs = 3; lab hrs = 4  
Lab fee  
Spring semester only

**HITT 2430**  
Pathophysiology and Pharmacology  
Study of the pathology and general health management of diseases and injuries across the life span. Topics include etiology, symptoms, and the physical and psychological reactions to diseases and injuries. A study of drug classifications, actions, therapeutic uses, adverse effects, routes of administration, and calculation of dosages.  
Lecture hrs = 3; lab hrs = 0

**HPRS 1209**  
Interpretation of Laboratory Results  
An introduction to interpretation of commonly ordered laboratory results.  
Lecture hrs = 2; lab hrs = 0

**HPRS 2332**  
Health Care Communications  
Methods of communication with clients, client support groups, health care professionals, and external agencies.  
Lecture hrs = 3; lab hrs = 0

**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
Lab fee

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
Lab fee

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 0101, BWRI 0101, 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 1405
Introduction to PC Operating Systems
Introduction to personal computer operating systems including installation, configuration, file management, memory and storage management, control of peripheral devices, and use of utilities.
Lecture hrs = 3; lab hrs = 3

ITSC 1425
Personal Computer Hardware
Current personal computer hardware including assembly, upgrading, setup, configuration, and troubleshooting.
Lecture hrs = 3; lab hrs = 3
Lab fee

ITSC 2435
Application Software Problem Solving
Utilization of appropriate application software to solve advanced problems and generate customized solutions.
Prerequisites: IITSW 1401, IITSW 1404, IITSW 1407, IITSW 1410, and IMED 1416 and instructor approval
Lecture hrs = 3; lab hrs = 3
Lab fee

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
Lab fee

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

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

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

ITSW 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
Lab fee

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
Lab fee

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
Lab fee

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

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 1111
Body Conditioning I (Activity)
Three hours per week.
Lecture hrs = 0; lab hrs = 3
Lab fee
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<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Description</th>
<th>Lecture hrs</th>
<th>Lab hrs</th>
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<td>KINE 1113</td>
<td>Weight Training II (Activity)</td>
<td>Three hours per week.</td>
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<td>Prerequisite: KINE 1103</td>
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<td>KINE 1116</td>
<td>Zumba Fitness I (Activity)</td>
<td>Three hours per week.</td>
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<td>Fitness Through Walking I (Activity)</td>
<td>Three hours per week.</td>
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<td>KINE 1125</td>
<td>Horsemanship I (Activity)</td>
<td>Three hours per week.</td>
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<tr>
<td>KINE 1128</td>
<td>Running &amp; Jogging I (Activity)</td>
<td>This course focuses on the mechanics and development of proper running/jogging technique. Will emphasis a variety of minimal and maximum CO2 activities.</td>
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<tr>
<td>KINE 1129</td>
<td>Physical Education Boot Camp I (Activity)</td>
<td>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.</td>
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<tr>
<td>KINE 1130</td>
<td>Varsity Basketball II (Activity)</td>
<td>Participation as a member of an intercollegiate athletic team. Approval for enrollment must be obtained from coach prior to registration.</td>
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<tr>
<td>KINE 1131</td>
<td>Varsity Baseball II (Activity)</td>
<td>Participation as a member of an intercollegiate athletic team. Approval for enrollment must be obtained from coach prior to registration.</td>
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<td>Prerequisite: KINE 1100</td>
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<tr>
<td>KINE 1132</td>
<td>Kickboxing I (Activity)</td>
<td>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.</td>
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<td>Lecture hrs = 0; lab hrs = 3</td>
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<td>Lab fee</td>
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<tr>
<td>KINE 1133</td>
<td>Pilates I (Activity)</td>
<td>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.</td>
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<td>Lecture hrs = 0; lab hrs = 3</td>
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<td>Lab fee</td>
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<tr>
<td>KINE 1135</td>
<td>Spin I (Activity)</td>
<td>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.</td>
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<td>KINE 1136</td>
<td>Bungee Fitness I (Activity)</td>
<td>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.</td>
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<td>Lecture hrs = 0; lab hrs = 3; Lab fee: $75</td>
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<tr>
<td>KINE 1137</td>
<td>Athletic Training Practicum II</td>
<td>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 proficiencies 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.</td>
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<tr>
<td>KINE 1138</td>
<td>Varsity Volleyball II (Activity)</td>
<td>Participation as a member of an intercollegiate athletic team. Approval for enrollment must be obtained from coach prior to registration.</td>
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<td>Prerequisite: KINE 1108</td>
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<td>Lab fee</td>
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<tr>
<td>KINE 1139</td>
<td>Barre Above I (Activity)</td>
<td>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.</td>
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<td>Lab fee</td>
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<tr>
<td>KINE 1141</td>
<td>Indoor Soccer I (Activity)</td>
<td>Instruction and participation in physical and recreational activities, specifically indoor soccer for this course.</td>
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<td>Lecture hrs = 0; lab hrs = 3</td>
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<td>Lab fee</td>
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</tbody>
</table>
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 1238 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 = 3; lab hrs = 0

KINE 1304  
Personal/Community Health  
This course provides an 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 1100, 1130  
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, 1123  
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
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Description</th>
<th>Lecture hrs</th>
<th>Lab hrs</th>
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<tr>
<td>KINE 2108</td>
<td>Varsity Volleyball III (Activity)</td>
<td>Participation as a member of an intercollegiate athletic team. Approval for enrollment must be obtained from coach prior to registration.</td>
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<tr>
<td>KINE 2111</td>
<td>Body Conditioning II (Activity)</td>
<td>Three hours per week.</td>
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<tr>
<td>KINE 2116</td>
<td>Zumba Fitness II (Activity)</td>
<td>Three hours per week.</td>
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<td>KINE 2119</td>
<td>Fitness Through Walking II (Activity)</td>
<td>Three hours per week.</td>
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<td>KINE 2125</td>
<td>Horsemanship II (Activity)</td>
<td>Three hours per week.</td>
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<td>KINE 2128</td>
<td>Running &amp; Jogging II (Activity)</td>
<td>This course focuses on the mechanics and development of proper running/jogging technique. Will emphasize a variety of minimal and maximum CO2 activities.</td>
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<td>KINE 2129</td>
<td>Physical Education Boot Camp II (Activity)</td>
<td>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.</td>
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<tr>
<td>KINE 2130</td>
<td>Varsity Basketball IV (Activity)</td>
<td>Participation as a member of an intercollegiate athletic team. Approval for enrollment must be obtained from coach prior to registration.</td>
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<tr>
<td>KINE 2131</td>
<td>Varsity Baseball IV (Activity)</td>
<td>Participation as a member of an intercollegiate athletic team. Approval for enrollment must be obtained from coach prior to registration.</td>
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<td>KINE 2132</td>
<td>Kickboxing II (Activity)</td>
<td>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.</td>
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<tr>
<td>KINE 2133</td>
<td>Weight Training IV (Activity)</td>
<td>Three hours per week.</td>
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<tr>
<td>KINE 2134</td>
<td>Pilates II (Activity)</td>
<td>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.</td>
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<tr>
<td>KINE 2135</td>
<td>Spin II (Activity)</td>
<td>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.</td>
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<td>KINE 2139</td>
<td>Barre Above II (Activity)</td>
<td>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.</td>
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</table>
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 2148
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 2148
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 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
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

Lab fee
MATH 1325  
Calculus for Business & Social Sciences  
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, numeration 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 = 1

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 = 1

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 2412  
Pre-Calculus Math  
In-depth combined study of algebra, trigonometry and other topics for calculus readiness.  
Prerequisites: MATH 1314 or equivalent preparation  
Lecture hrs = 3; lab hrs = 2

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 2412  
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 1321  
Lecture hrs = 2; 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 1447  
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 1448
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 = 2; 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 = 2; 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 1235
Immunology/Serology
An introduction to the theory and application of basic immunology, including the immune response, principles of antigen-antibody reactions and the principles of serological procedures as well as 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 2431
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.
Prerequisite/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.

**MUEN 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:

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| C. Voice | 82-84 |
| 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, performs for athletic events and at various functions in the area. Inquire about college-owned instruments.

Lecture hrs = 0; lab hrs = 6

**MUEN 1131, 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 1311

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 1312

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

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Panola College Catalog 2020-2021  Page 225  April 2, 2020
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 1117  
Lecture hrs = 3; 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

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 = 2

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; qualitative relationships; mathematical models; and problem solving.  
Prerequisite: Placement examination or permission of instructor  
Lecture hrs = 0; lab hrs = 2

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  
Lecture hrs = 3; lab hrs = 3

MUSI 2182
Piano Class IV
Advanced class instruction of keyboard technique.  
Prerequisite: MUSI 2181 or evidence of intermediate piano skills  
Lecture hrs = 3; lab hrs = 3

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 2111 & MUSI 2312  
Lecture hrs = 3; lab hrs = 0

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

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 = 2

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 = 4; lab hrs = 3

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-requisite: 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/valuation tools and techniques and intervention strategies specific to this population.  
Prerequisites: OTHA 2260, 2405, 1415  
Lecture hrs = 2; lab hrs = 3

OTHA 1349
Occupational Performance of Adulthood
Study of occupational performance of adults. Includes frames of reference, assessment/valuation tools and techniques and intervention strategies specific to this population.  
Prerequisites: OTHA 2260, 2262, 2301, 2303, 2335, 2402, 2409, 1415, 2260, 2301, 2335  
Lecture hrs = 2; lab hrs = 2

COURSES
**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 = 5

**OTHA 1409**  
Human Structure and Function in Occupational Therapy  
Study of the biomechanics of human motion. Emphasis on the musculoskeletal system including skeletal structure, muscles and nerves and biomechanical assessment procedures.  
Prerequisites: OTHA 1260, 1341, 1405, 1415, 2260, 2301  
Lecture hrs = 2; lab hrs = 4

**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 = 3; 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, 1415, 2260, 2262, 2301, 2335, 2402  
Co-requisites: OTHA 2260, 2267  
Lecture hrs = 2; lab hrs = 0

**OTHA 2260**  
Clinical I  
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: OTHA 1260, 1405, 1415  
Co-requisites: OTHA 2240, 2301  
Lecture hrs = 0; lab hrs = 6

**OTHA 2262**  
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.  
Prerequisites: OTHA 2260, 1341, 1405, 1409, 1415, 2260, 2301, 2335  
Co-requisites: OTHA 1349, 2402  
Lecture hrs = 0; lab hrs = 0; 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, 1415, 2260, 2262, 2301, 2335, 2402  
Lecture hrs = 0; lab hrs = 0; extended hrs = 21

**OTHA 2267**  
Practicum II (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, 1415, 2260, 2262, 2301, 2335, 2266, 2402  
Lecture hrs = 0; lab hrs = 0; extended hrs = 21

**OTHA 2335**  
Health Care Management in Occupational Therapy  
Explores the roles of the occupational therapy assistant in health care delivery. Emphasis on documentation, occupational therapy standards and ethics, health care team role delineation and management.  
Prerequisites: OTHA 2260, 2341, 2405, 2415, 2260, 2301  
Co-requisites: OTHA 1260, 2267  
Lecture hrs = 3; lab hrs = 0

**OTHA 2402**  
Therapeutic Use of Occupations or Activities II  
The study and application of advanced techniques and interventions used in traditional and non-traditional settings. Includes adult pathological conditions typically addressed by occupational therapy assistants.  
Prerequisite: OTHA 2260, 1341, 1405, 1409, 1415, 2260, 2301, 2335  
Co-requisites: OTHA 1349, 2260  
Lecture hrs = 3; lab hrs = 2

**PHIL 1301**  
Introduction to Philosophy  
A study of major issues in philosophy and/or the work of major philosophical figures in philosophy. Topics in philosophy may include theories of reality, theories of knowledge, theories of value, and their practical applications.  
Lecture hrs = 3; lab hrs = 0

**PHYS 1401**  
College Physics I  
This lecture and lab course should combine all of the elements of PHYS 1301 (lecture) and PHYS 1101 (lab), including the learning outcomes listed for both courses.  
Not offered every semester  
Pre-requisites: MATH 1314 & 1316 or MATH 2412  
Lecture hrs = 3; lab hrs = 3  
Lab fee

**PHYS 1402**  
College Physics II  
This lecture and lab course should combine all of the elements of PHYS 1302 (lecture) and PHYS 1102 (lab), including the learning outcomes listed for both courses.  
Not offered every semester  
Pre-requisite: PHYS 1401  
Lecture hrs = 3; lab hrs = 3  
Lab fee

**PHYS 1403**  
Stars and Galaxies (Astronomy)  
Study of stars, galaxies, and the universe outside our solar system. May or may not include a laboratory.  
Lecture hrs = 3; lab hrs = 3  
Lab fee
**COURSES**

**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 2223  
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 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: POFT 1329 or POFT 2301 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 1329 or approval of instructor  
Lecture hrs = 2; lab hrs = 4  
Lab fee

**POFT 2312**  
**Business Correspondence and Communication**  
Development of writing and presentation skills to produce effective business communications. Students create effective business documents, evaluate business documents, and apply ethical communication practices.  
Prerequisite: ENGL 1401 or POFT 1301 and POFT 1329 or POFT 2301  
Lecture hrs = 3; lab hrs = 0

**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 = 1; 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.
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
Lecture hrs = 3; lab hrs = 0

PRTT 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 = 1; lab hrs = 3
Lab fee

PRTT 1170
**Energy Sector Math and Computer Skills**
Computer and math applications that are used in the petroleum industry will be discussed.
Lecture hrs = 1; lab hrs = 3
Lab fee

PRTT 1175
**Petroleum Regulations**
Regulatory requirements and structures associated with the petroleum industry.
Lecture hrs = 1; lab hrs = 3
Lab fee

PRTT 1177
**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

PRTT 1178
**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 = 1; 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, 1118, 1161, 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 2261, 1533
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, 1118, 1163, 1160 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 1538, 2262
Lecture hrs = 1; lab hrs = 0
COURSES

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.
Prerequisite: Acceptance into the ADN Program
Co-requisites: RNSG 1430, 1128, 1126, 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.
Prerequisite: Acceptance into the LVN-RN Hybrid Transition Program
Co-requisites: RNSG 1128, 1126
Lecture hrs = 0; lab hrs = 0; extended hrs = 4
Lab fee

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 1128, 1126, 1125
Lecture hrs = 0; lab hrs = 0; extended 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, grief, and perfusion.
Prerequisite: Admission into the LVN-RN Hybrid Transition Program
Co-requisites: RNSG 1128, 1126, 1163
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 1126, 1162
Lecture hrs = 4; lab hrs = 4
Lab fee

RNSG 2138
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, 2539
Lecture hrs = 4; 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 2137, 1538
Lecture hrs = 0; 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 2138, 2230, 2339
Lecture hrs = 0; 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 2138, 2230, 2363
Lecture hrs = 4; lab hrs = 4
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 = 3; 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 1219
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 1226
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
Co-requisites: VNSG 1233, 2204, 2400, 1261
Lecture hrs = 2; lab hrs = 0
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Prerequisites</th>
<th>Lecture hrs</th>
<th>Lab hrs</th>
<th>Extended hrs</th>
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</thead>
<tbody>
<tr>
<td>VNSG 1320</td>
<td>Maternal-Neonatal Nursing</td>
<td>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.</td>
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<tr>
<td>VNSG 1271</td>
<td>Pharmacology</td>
<td>Fundamentals of medications and their diagnostic, therapeutic, and curative effects. Includes nursing interventions utilizing the nursing process.</td>
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<tr>
<td>VNSG 1274</td>
<td>Pediatrics</td>
<td>Study of the care of the pediatric patient and family during health and disease. Emphasis on growth and development needs utilizing the nursing process.</td>
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<tr>
<td>VNSG 1261</td>
<td>Clinical I – Licensed Practical/Vocational Nurse Training</td>
<td>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.</td>
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<tr>
<td>VNSG 1304</td>
<td>Foundations in Nursing</td>
<td>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.</td>
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<td>VNSG 1323</td>
<td>Basic Nursing Skills</td>
<td>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.</td>
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<td>VNSG 1360</td>
<td>Clinical II – Licensed Practical/Vocational Nurse Training</td>
<td>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.</td>
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<tr>
<td>VNSG 1400</td>
<td>Nursing in Health and Illness I</td>
<td>Introduction to general principles of growth and development, primary health care needs of the patient across the life span, and therapeutic nursing interventions.</td>
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<td>VNSG 1409</td>
<td>Nursing in Health and Illness II</td>
<td>Introduction to health problems requiring medical and surgical interventions.</td>
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<tr>
<td>VNSG 2410</td>
<td>Nursing in Health and Illness III</td>
<td>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.</td>
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<tr>
<td>VNSG 2260</td>
<td>Clinical III – Licensed Practical/Vocational Nurse Training</td>
<td>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.</td>
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<tr>
<td>VNSG 2260</td>
<td>Clinical IV – Licensed Practical/Vocational Nurse Training</td>
<td>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.</td>
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<tr>
<td>WLDG 1200</td>
<td>Introduction to Welding</td>
<td>Equipment used in oxy-fuel and arc welding. Includes cutting of ferrous metals. Emphasizes welding and cutting safety and basic welding processes.</td>
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<tr>
<td>WLDG 1270</td>
<td>Basic Layout and Fabrication</td>
<td>A fundamental course in layout and fabrication related to the welding industry. Major emphasis on structural shapes and use in construction.</td>
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<tr>
<td>WLDG 1417</td>
<td>Layout &amp; Fabrication</td>
<td>A fundamental course in layout and fabrication related to the welding industry. Major emphasis on structural shapes and use in construction.</td>
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<tr>
<td>WLDG 1423</td>
<td>Welding Safety, Tools, and Equipment</td>
<td>An introduction to welding equipment and safety practices, including OSHA standards for industry.</td>
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</tbody>
</table>
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