

4

Chapter

Course Descriptions

See page 59 for an explanation of the course numbering system.

A prerequisite of READ, MATH, or WRITE indicates that the course has a skills prerequisite based on scores on local placement tests or their equivalent.

ACCT 2401 4 CR
Principles of Accounting I

Prerequisite: READ

This course introduces accounting concepts, principles, and procedures with an emphasis on financial accounting statements for corporations and accounting processes for a service and merchandise enterprise. The course focuses on elements of the balance sheet and income statement including current, plant and intangible assets, deferrals, accruals, current and long-term liabilities, and stock transactions. In addition, ethics, accounting systems and control, short and long-term securities are also studied. This course has a computerized lab, utilizing interactive financial accounting software. Note: Students who have not had high school accounting or have not worked in accounting may wish to take ACNT 1303, Introduction to Accounting I, before taking this course.

Lecture Hrs = 3, Lab Hrs = 3, Fee \$10

ACCT 2402 Ω 4 CR
Principles of Accounting II

Prerequisite: ACCT 2401. READ

This course emphasizes managerial accounting concepts, including a study of cost behavior, budgeting, cost-volume profit analysis, manufacturing cost accounting, variance analysis, and cost controls. Tax and management decisions, cash flows, responsibility accounting, ethics and corporate structure analysis are also studied. A research component is required for honors credit. This course has a computerized lab, utilizing interactive managerial accounting software.

Lecture Hrs = 3, Lab Hrs = 3, Fee \$10

ACNT 1303 3 CR
Introduction to Accounting I

Prerequisite: READ

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

Lecture Hrs = 3, Lab Hrs = 0

ACNT 1311 3 CR

Introduction to Computerized Accounting

Prerequisite: ACCT 2401, POFI 1401 or consent of instructor. READ

Introduction to utilizing the computer in maintaining accounting records, making management decisions, and processing common business applications with primary emphasis on a general ledger package. Students will utilize an integrated general ledger software package, including accounts receivable, accounts payable, inventories, and payroll systems.

Lecture Hrs = 2, Lab Hrs = 2, Fee \$10

ACNT 1313 3 CR

Computerized Accounting Applications

Prerequisite: POFI 1401. READ

Corequisite: ACCT 2402.

A study of utilizing the computer to develop and maintain accounting record keeping systems, make management decisions, and process common business applications with emphasis on utilizing a spreadsheet and/or data base package/program.

Lecture Hrs = 2, Lab Hrs = 2, Fee \$10

ACNT 1329 3 CR

Payroll & Business Tax Accounting

Prerequisite: ACCT 2401 or ACNT 1303. READ

A study of payroll procedures, taxing entities, and reporting requirements of local, state, and federal taxing authorities in a manual and computerized environment. Students will learn to process payroll and maintain personnel and payroll information required by current laws. Course will also include accounting for franchise taxes, sales tax, and an overview of taxes relating to partnerships and corporations.

Lecture Hrs = 3, Lab Hrs = 0

ACNT 1331 3 CR

Federal Income Tax: Individual

Prerequisite: READ

Basic instruction in the tax laws as currently implemented by the Internal Revenue Service providing a working knowledge of preparing taxes for the individual. The course focuses on identifying the determinants of taxable income, selection and use of proper forms, and computation of income tax due. The use of a computer tax program is included.

Lecture Hrs = 3, Lab Hrs = 0, Fee \$10

ACNT 2301 3 CR

Accounting Technician Capstone

Prerequisite: ACCT 2401, or consent of instructor. READ

A learning experience that allows students to apply broad knowledge of the accounting profession through discipline specific projects involving the integration of individuals and teams performing activities to stimulate workplace situations.

Lecture Hrs = 3, Lab Hrs = 0

ACNT 2302 3 CR

Accounting Capstone

Prerequisite: ACNT 2303; or consent of instructor. READ

A learning experience that allows students to apply broad knowledge of the accounting profession through discipline specific projects involving the integration of individuals and teams performing activities to stimulate workplace situations.

Lecture Hrs = 3, Lab Hrs = 0



ACNT 2303 3 CR

Intermediate Accounting I

Prerequisite: ACCT 2402. READ

Critical analysis of generally accepted accounting principles, concepts, and theory underlying the preparation of financial statements. Emphasis is on current theory and practice. In addition, this course includes the study of present and future value concepts; current, plant, and intangible assets; some payroll theory; other financial accounting topics.

Lecture Hrs = 3, Lab Hrs = 0

ACNT 2304 3 CR

Intermediate Accounting II

Prerequisite: ACNT 2303. READ

Continued in-depth analysis of generally accepted accounting principles underlying the preparation of financial statements including comparative analysis and statement of cash flow. In addition, special emphasis on corporation accounting, stockholder's equity, retained earnings, current and long-term liabilities, pensions, statement of cash flows, and other financial topics.

Lecture Hrs = 3, Lab Hrs = 0

ACNT 2309 3 CR

Cost Accounting

Prerequisite: ACCT 2402. READ

A study of budgeting and cost control systems including a detailed study of manufacturing cost accounts and reports, job order costing, and process costing. Includes introduction to alternative costing methods such as activity-

Ω Indicates courses taught with optional honors contracts.

∑ Indicates honors courses.

See page 20 for additional information on the Honors Program.

based and just-in-time costing. The course also includes cost allocations, break-even analysis, profit-volume ratio, standard, direct and variable costing.

Lecture Hrs = 3, Lab Hrs = 0

ACNT 2386 3 CR
Internship – Accounting Technician

Prerequisite: ACCT 2401, or consent of instructor. *READ*

An experience external to the college for an advanced student in a specialized field involving a written agreement between the educational institution and a business or industry. Mentored and supervised by a workplace employee, the student achieves objectives that are developed and documented by the college and that are directly related to specific occupational outcomes. This may be a paid or unpaid experience. This course may be repeated if topics and learning outcomes vary. The experience must be in an accounting related job for a minimum of 12 hours a week and must be supplemented by a one-hour weekly seminar on relevant topics. Students must have an approved job site by the second class of the semester. As a capstone elective, this class must be taken in the student's last semester of the Accounting Technician Certificate. Lecture Hrs = 1, Lab Hrs = 0, Ext. Hrs = 12

ACNT 2387 3 CR
Internship – Accounting Technician

Prerequisite: ACCT 2402, or consent of instructor. *READ*

An experience external to the college for an advanced student in a specialized field involving a written agreement between the educational institution and a business or industry. Mentored and supervised by a workplace employee, the student achieves objectives that are developed and documented by the college and that are directly related to specific occupational outcomes. This may be a paid or unpaid experience. This course may be repeated if topics and learning outcomes vary. The experience must be in an accounting related job for a minimum of 12 hours a week and must be supplemented by a one-hour weekly seminar on relevant topics. Students must have an approved job site by the second class of the semester. As a capstone elective, this class must be taken in the student's last semester of the Advanced Accounting Technician Certificate. Lecture Hrs = 1, Lab Hrs = 0, Ext. Hrs = 12

ACNT 2389 3 CR
Internship – Accounting

Prerequisite: ACNT 2303, or consent of instructor. *READ*

An experience external to the college for an advanced student in a specialized field involving a written agreement between the educational institution and a business or industry. Mentored and supervised by a workplace employee, the student achieves objectives that are developed and documented by the college and that are directly related to specific occupational outcomes. This may be a paid or unpaid experience. This course may be repeated if topics and learning outcomes vary. The experience must be in an accounting related job for a minimum of 12 hours a week and must be

supplemented by a one-hour weekly seminar on relevant topics. Students must have an approved job site by the second class of the semester. As a capstone elective, this class must be taken in the student's last semester of the AAS degree in Accounting Technology. Lecture Hrs = 1, Lab Hrs = 0, Ext. Hrs = 12

AIRP 1215 2 CR
Private Flight

Prerequisite: *READ*

Flight training to prepare the student for the completion of the Federal Aviation Administration private pilot certification process, including dual and solo flight in the areas of maneuvers and cross-country navigation.

Lecture Hrs = 1, Lab Hrs = 1
(12 pre/post, 20 dual, 0 solo)

AIRP 1255 2 CR
Intermediate Flight

Prerequisite: AIRP 1215 or consent of division chair. *READ*

Provides students with flight hours and skills necessary to fulfill solo cross-country hours required for the Federal Aviation Administration Commercial Pilot, single engine land, airplane rating.

Lecture Hrs = 1, Lab Hrs = 3
(15 pre/post, 27 dual, 22 solo)

AIRP 1301 3 CR
Air Navigation

Prerequisite: *READ*

Instruction in visual Flight Navigation in the National Airspace System. Topics include sectional charts, flight computers, plotters, and navigation logs. Qualifies as part of a program leading to Federal Aviation Certification.

Lecture Hrs = 3, Lab Hrs = 0

AIRP 1307 3 CR
Aviation Meteorology

Prerequisite: *READ*

In-depth coverage of meteorological phenomena affecting aircraft flight. Topics include basic concepts of aviation meteorology in the study of temperature, pressure, moisture, stability, clouds, air masses, fronts, thunderstorms, icing, and fog. Also includes analysis and use of weather data for flight planning.

Lecture Hrs = 3, Lab Hrs = 0

AIRP 1317 3 CR
Private Pilot Ground School

Prerequisite: *READ*

Basic ground school for the Private Pilot Certificate, providing the student with the necessary aeronautical knowledge that can be used for private pilot certification. Topics include principles of flight, radio procedures, weather, navigation, aerodynamics, and Federal Aviation Administration regulations.

Lecture Hrs = 3, Lab Hrs = 0

AIRP 1341 3 CR
Advanced Air Navigation

Prerequisite: AIRP 1301 or consent of division chair. *READ*

Skill development in advanced airplane systems and performance including radio navigation and cross-country flight planning. In-

cludes an introduction to instrument flight operations and navigation. This course may be used as part of a program leading to Federal Aviation Administration certification.

Lecture Hrs = 3, Lab Hrs = 0

AIRP 1343 3 CR
Aerodynamics

Prerequisite: *READ*

Study of the general principles of the physical laws of flight. Topics include physical terms and the four forces of flight: lift, weight, thrust, and drag; aircraft design; stability control; and high-speed flight characteristics.

Lecture Hrs = 3, Lab Hrs = 0

AIRP 1345 3 CR
Aviation Safety

Prerequisite: *READ*

A study of the fundamentals essential to the safety of flight. A survey of the aviation industry including decision-making factors, accident reporting, accident investigation, air traffic systems, and aircraft technologies.

Lecture Hrs = 3, Lab Hrs = 0

AIRP 1351 3 CR
Instrument Ground School

Prerequisite: Private Pilot Certificate or consent of division chair. *READ*

A study of basic instrument radio and navigation fundamentals used in instrument flight. Topics include a description and practical use of aerial navigation systems and instruments, charts used for instrument flight and Federal Aviation Administration regulations. Qualifies as part of a program leading to Federal Aviation Administration certification.

Lecture Hrs = 3, Lab Hrs = 0

AIRP 2239 2 CR
Commercial Flight

Prerequisite: AIRP 2250 or consent of division chair. *READ*

Flight instruction necessary to qualify for the Federal Aviation Administration Commercial Pilot Certificate. Instruction includes both dual and solo flight training to prepare the student for mastery of all commercial pilot maneuvers.

Lecture Hrs = 1, Lab Hrs = 4
(15 pre/post, 30 dual, 35 solo)

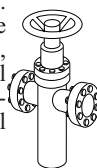
AIRP 2250 2 CR
Instrument Flight

Prerequisite: AIRP 1255 or consent of division chair. *READ*

Preparation for completion of the Federal Aviation Administration Instrument Pilot Rating with mastery of all instrument procedures.

Lecture Hrs = 1, Lab Hrs = 2

A prerequisite of READ, MATH, or WRITE indicates that the course has a skills prerequisite based on scores on local placement tests or their equivalent.



AIRP 2331 3 CR
Advanced Meteorology
Prerequisite: AIRP 1307 or consent of division chair. **READ**
 Preparation for advanced aviation students to apply knowledge of varying meteorological factors including weather hazards to flight, techniques for minimizing weather hazards, and aviation weather services.
 Lecture Hrs = 3, Lab Hrs = 0

AIRP 2333 3 CR
Aircraft Systems
Prerequisite: **READ**
 Study of the general principles, operation, and application of pneumatic, hydraulic, electrical, fuel, environmental, protection, and warning systems. Emphasis on types of aircraft structures and their control systems.
 Lecture Hrs = 3, Lab Hrs = 0



AIRP 2337 3 CR
Commercial Ground School
Prerequisite: AIRP 2250 or consent of division chair. **READ**
 A study of advanced aviation topics that can be used for Federal Aviation Administration certification at the commercial pilot level. Includes preparation for the Commercial airplane written test.
 Lecture Hrs = 3, Lab Hrs = 0

ANTH 2351 3 CR
Cultural Anthropology
Prerequisite: **READ, WRITE**
 The course introduces theories and methods in the study of human cultures and how anthropologists comparatively research, analyze and interpret the cultural institutions such as languages, kinships, economic systems, political processes, social stratifications, arts, and religions. This course takes a critical look at cultural diversity, evolution, and cross-cultural interaction.
 Lecture Hrs = 3, Lab Hrs = 0

ARCH 1301 3 CR
Architectural History I
Prerequisite: ENGL 301, READ 302, MATH 320.
 This course is a survey of the history of architecture and the built environment from prehistoric times to the middle of the 15th century, along with their relationship to the cultural heritage of the Western World.
 Lecture Hrs = 3, Lab Hrs = 0

ARCH 1302 3 CR
Architectural History II
Prerequisite: **READ**
 This course follows ARCH 1301, (Architectural History I) with a survey of the history of architecture and the built environment from the Renaissance to the present.
 Lecture Hrs = 3, Lab Hrs = 0

ARCH 1305 3 CR
Architectural Aesthetics
Prerequisite: **READ**
 Architecture as a contemporary philosophical concept. Visual experiences in the aesthetics of architecture.
 Lecture Hrs = 3, Lab Hrs = 0

ARCH 1307 3 CR
Architectural Graphics I
Prerequisite: **READ**
 Architectural drafting techniques including orthographic and axonometric studies. Principles of shades and shadows, and perspective drawing. This course teaches the use of drafting tools and materials and their application to graphic representation of architectural subject matter.
 Lecture Hrs = 3, Lab Hrs = 3, Fee \$12

ARCH 1308 3 CR
Architectural Graphics II
Prerequisite: ARCH 1307. **READ**
 This course is a continuation of ARCH 1307, (Architectural Graphics I) with emphasis on more complex architectural graphic problems. Continued study of architectural drafting and modeling techniques including orthographic and axonometric studies.
 Lecture Hrs = 3, Lab Hrs = 3, Fee \$12

ARCH 1311 3 CR
Introduction to Architecture
Prerequisite: **READ**
 An introduction to the elements of the architectural profession. Introduction to architecture theory, history, technology, and practice. A survey study of the interrelationships between society, culture and architecture.
 Lecture Hrs = 3, Lab Hrs = 0

ARCH 1315 3 CR
Architectural Computer Graphics
Prerequisite: ARCH 1307 or equivalent, or instructor approval. **READ**
 Introduction to computer graphics systems with emphasis on architectural applications. This is an introductory course devoted to the creation of architectural drawings using computer software. Instruction will include the use of com-

puter software to create two and three-dimensional drawings of various types including plans, elevations, sections, and others. Procedures for creating and organizing a set of presentation and construction drawings are also presented.
 Lecture Hrs = 3, Lab Hrs = 3, Fee \$12

ARCH 1403 4 CR
Architectural Design I
Prerequisite: ARCH 2301. **READ**
 Introduction to architectural concepts. The visual characteristics of two- and three-dimensional forms and spaces. Concepts are studied through the use of form, color, texture, and material. Emphasis is placed on three-dimensional form and the development of graphic communication skills.
 Lecture Hrs = 2, Lab Hrs = 7, Fee \$12

ARCH 1404 4 CR
Architectural Design II
Prerequisite: ARCH 1403. **READ**
 This course is a continuation of ARCH 1403, (Architectural Design I) with emphasis on more complex, three-dimensional design problems.
 Lecture Hrs = 2, Lab Hrs = 7, Fee \$12

ARCH 2301 3 CR
Architectural Freehand Drawing I
Prerequisite: **READ**
 Representational drawing using various media. Emphasis on principles of light, shade, scale, proportion, line, and tonal quality. This course involves the study and application of freehand drawing and other basic communication skills using various media.
 Lecture Hrs = 3, Lab Hrs = 3, Fee \$12

ARCH 2302 3 CR
Architectural Freehand Drawing II
Prerequisite: **READ**
 This course is a continuation of ARCH 2301, (Architectural Freehand Drawing I). Representational drawing using various media. Emphasis on principles of light, shade, scale, proportion, line, and tonal quality. This course involves a more advanced study and application of freehand drawing and other basic communication skills using various media. Sketches and renderings of architectural subjects are produced with pencil, ink, colored pencil, and other media.
 Lecture Hrs = 3, Lab Hrs = 3, Fee \$12

ARCH 2312 3 CR
Architectural Technology
Pre-Corequisite: MATH 1316 or MATH 2412 or equivalent; PHYS 1401. **READ**
 Introduction to the properties, specifications, and application of materials related to architectural structures. Emphasis on methods of construction and the effect of design. This course involves the study of building systems and their structure, economics, and aesthetic uses in architecture. The varieties, manufacture, properties, and uses of building materials are also presented. Also included are units on accessibility, life safety, building envelope systems, and building service systems.
 Lecture Hrs = 3, Lab Hrs = 0

ARTS 1301 3 CR
 Art Appreciation
Prerequisite: READ
 A general education course open to all; design principles from the layman's point-of-view. Critical evaluation of selected works of painting, sculpture, and architecture.
 Lecture Hrs = 3, Lab Hrs = 0

ARTS 1303 3 CR
 Art History I
Prerequisite: READ
 A survey of painting, sculpture, and architecture from prehistoric times through the 13th century. Alternatively, the course may be presented topically.
 Lecture Hrs = 3, Lab Hrs = 0

ARTS 1304 3 CR
 Art History II
Prerequisite: READ
 A survey of painting, sculpture, and architecture from the 14th century to the present. Alternatively, the course may be presented topically.
 Lecture Hrs = 3, Lab Hrs = 0

ARTS 1311 3 CR
 Design I
Prerequisite: READ
 Emphasis upon two-dimensional design; includes the fundamentals of line, shape, value, texture, color, and consideration of arrangement and space.
 Lecture Hrs = 3, Lab Hrs = 3, Fee \$10

ARTS 1312 3 CR
 Design II
Prerequisite: ARTS 1311. READ
 Continuation of ARTS 1311 with emphasis on three-dimensional concepts.
 Lecture Hrs = 3, Lab Hrs = 3, Fee \$10

ARTS 1313 3 CR
 Art Education
Prerequisite: READ
 A survey of philosophical, methodological and materials commonly used in primary art education. This course has the dual purpose of making the prospective teacher aware of children's art as a whole and at the same time the creative individuality of each child.
 Lecture Hrs = 3, Lab Hrs = 0, Fee \$10

ARTS 1316 3 CR
 Drawing I
Prerequisite: READ
 A beginning course investigating a variety of media, techniques and subjects, exploring perceptual and descriptive possibilities with consideration of drawing as a developmental process as well as an end in itself.
 Lecture Hrs = 3, Lab Hrs = 3, Fee \$10

ARTS 1317 3 CR
 Drawing II
Prerequisite: ARTS 1316. READ
 Expansion of ARTS 1316 stressing the expressive and conceptual aspects of drawing including the human figure within a spatial environment.
 Lecture Hrs = 3, Lab Hrs = 3, Fee \$10

ARTS 2276 2 CR
 Problems in Contemporary Art
Prerequisite: First two courses in the appropriate topic area. READ
 This course is intended to enhance students' capabilities in a particular medium and knowledge of current concerns and practices in the visual arts. Approved topics are in areas of drawing, painting, sculpture, ceramics, and photography.
 Lecture Hrs = 2, Lab Hrs = 2, Fee \$10



ARTS 2313 3 CR
 Communications Design I
Prerequisite: READ
 This course introduces the basics of using the computer and other digital equipment for creative expression. Course projects and methods of instruction emphasize the element of fine art design and conceptual idea development rather than technology.
 Lecture Hrs = 3, Lab Hrs = 3, Fee \$20

ARTS 2314 3 CR
 Communications Design II
Prerequisite: ARTS 1311 or 2313. READ
 A survey course introducing digital multimedia communications exploring elements of design, sound, and motion integrated with digital imagery.
 Lecture Hrs = 3, Lab Hrs = 3, Fee \$20

ARTS 2316 3 CR
 Painting I
Prerequisite: READ
 Exploring the potentials of painting media with emphasis on color and composition.
 Lecture Hrs = 3, Lab Hrs = 3, Fee \$10

ARTS 2317 3 CR
 Painting II
Prerequisite: ARTS 2316. READ
 Continuation of ARTS 2316 with emphasis on individual expression.
 Lecture Hrs = 3, Lab Hrs = 3, Fee \$10

ARTS 2326 3 CR
 Sculpture I
Prerequisite: READ
 An exploration of various approaches in a variety of media including additive and subtractive techniques.
 Lecture Hrs = 3, Lab Hrs = 3, Fee \$10

ARTS 2327 3 CR
 Sculpture II
Prerequisite: ARTS 2326. READ
 A continuation of ARTS 2326 with emphasis on individual expression.
 Lecture Hrs = 3, Lab Hrs = 3, Fee \$10

ARTS 2333 3 CR
 Printmaking I
Prerequisite: READ
 A beginning course investigating a number of printmaking approaches, techniques and principles.
 Lecture Hrs = 3, Lab Hrs = 3, Fee \$10

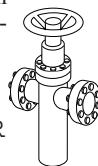
ARTS 2334 3 CR
 Printmaking II
Prerequisite: ARTS 2333. READ
 The advanced printmaking course expands on the beginning printmaking course investigating each printmaking technique more intensely. Ideas will be further developed into complete drawings to produce editions of prints through the various processes as well as unique presentations.
 Lecture Hrs = 3, Lab Hrs = 3, Fee \$10

ARTS 2346 3 CR
 Ceramics I
Prerequisite: READ
 An introduction to basic ceramic processes.
 Lecture Hrs = 3, Lab Hrs = 3, Fee \$10

ARTS 2347 3 CR
 Ceramics II
Prerequisite: ARTS 2346. READ
 Opportunities for specialization in ceramic processes.
 Lecture Hrs = 3, Lab Hrs = 3, Fee \$10

ARTS 2351 3 CR
 Imaging I
Prerequisite: ARTS 1311 or 2313 and 2314 or instructor permission. READ
 This is a survey course continuing to study digital multimedia with an emphasis on interactive information structure and presentation. This course will emphasize web production, Kiosk and CD ROM Design.
 Lecture Hrs = 3, Lab Hrs = 3, Fee \$20

ARTS 2352 3 CR
 Imaging II
Prerequisite: ARTS 1311 or 2313 or instructor permission. READ
 This is a survey course continuing to study digital multimedia with an emphasis on interactive information structure and presentation. This course will emphasize video and 3-D animation.
 Lecture Hrs = 3, Lab Hrs = 3, Fee \$20



ARTS 2356 Introduction to Photography Prerequisite: READ Fundamentals of photography. Covers cameras, lenses, shutters and filters; exposure time and apertures; light meters and lighting; developing, fixing, contact and projection printing; emulsions, solutions; characteristics of photographic papers; elements of composition. Lecture Hrs = 3, Lab Hrs = 3, Fee \$20	3 CR	BIOL 1407 Ω General Biology II Prerequisite: Completion of BIOL 1406 with a grade of "C" or higher; MATH, READ, WRITE. A continuation of BIOL 1406 with emphasis on fungi, protists, plants, plant function, animals, animal physiology, ecology, and environmental issues. A research component is required for honors credit. Lecture Hrs = 3, Lab Hrs = 3, Fee \$20	4 CR	BIOL 2404 The Human Body Prerequisite: READ, MATH, WRITE. The study of the structure and function of the human body, includes integrated topics on nutrition, disease conditions, and hygiene. Lecture Hrs = 3, Lab Hrs = 3, Fee \$20	4 CR
ARTS 2357 Advanced Photographic Practices Prerequisite: ARTS 2356 or consent of instructor. READ A continuation of ARTS 2356, designed to give additional laboratory experience and advanced training to develop professional ability. Lecture Hrs = 3, Lab Hrs = 3, Fee \$20	3 CR	BIOL 1411 General Botany Prerequisite: MATH, READ, WRITE. This course presents a panorama of plant life and how plants function, live, reproduce, and interact with their environment and man. The botanical principles discussed will convey a conceptual unity to the knowledge about plants and their relationships in a dynamic world. Lecture Hrs = 3, Lab Hrs = 3, Fee \$20	4 CR	BIOL 2416 Genetics Prerequisite: Completion of one semester of college level Biology with a grade of "C" or higher; READ, MATH, WRITE. A study of the principles of molecular and classical genetics and the function and transmission of hereditary material. May include population genetics and genetic engineering. Lecture Hrs = 3, Lab Hrs = 3, Fee \$20	4 CR
BCIS 1405 Business Computer Applications Prerequisite: READ This course discusses computer terminology, hardware, software, operating systems, and information systems relating to the business environment. The main focus of this course is on business applications of software, including word processing, spreadsheets, databases, presentation graphics, and business-oriented utilization of the Internet. Lecture Hrs = 3, Lab Hrs = 3	4 CR	BIOL 1413 General Zoology Prerequisite: MATH, READ, WRITE. This course presents a panorama of animal life and how animals function, live, reproduce and interact with their environment and man. The zoological principles discussed will convey a conceptual unity to the knowledge about animals and their relationships in a dynamic world. Lecture Hrs = 3, Lab Hrs = 3, Fee \$20	4 CR	BIOL 2421 Microbiology Prerequisite: MATH, READ, WRITE. A study of the morphology, physiology, and classification of microorganisms with special emphasis on bacteria. Laboratory work includes culturing, staining, and the procedures of disinfection and sterilization techniques. Lecture Hrs = 3, Lab Hrs = 3, Fee \$20	4 CR
BIOL 1322 Nutrition Prerequisite: MATH, READ. A study of the basic biological principles of human nutrition in health and disease. Includes the chemical nature of essential nutrients; the biology of their functions in the human body; survey of nutrition in the life cycles; introduction of computer use in diet analysis and diet adequacy; and modification of diets for therapeutic purposes. (May be offered as a video class) Lecture Hrs = 3, Lab Hrs = 0	3 CR	BIOL 1424 Plant Taxonomy Prerequisite: MATH, READ, WRITE. Taxonomy of flowering plants and principles of identification and classification of plants; nomenclature, characteristics, and field identification of the different plant groups. Lecture Hrs = 3, Lab Hrs = 3, Fee \$20	4 CR	BMGT 1301 Supervision Prerequisite: READ A study of the role of the supervisor. Managerial functions as applied to leadership, counseling, motivation, and human skills are examined. Lecture Hrs = 3, Lab Hrs = 0	3 CR
<i>Either BIOL 1406 or 1407 or BIOL 1411 and 1413 may be taken to meet the 8 hours of required laboratory science for most universities. Students should check with the university they plan to attend.</i>		BIOL 2305 Pathophysiology Prerequisite: BIOL 2401. MATH, READ, WRITE. A study of the structure and function of the human body with specialized emphasis on disease processes. Lecture Hrs = 3, Lab Hrs = 0	3 CR	BMGT 1303 Principles of Management Prerequisite: READ Concepts, terminology, principles, theory, and issues that are the substance of the practice of management. Lecture Hrs = 3, Lab Hrs = 0	3 CR
BIOL 1406 Ω General Biology I Prerequisite: MATH, READ. A general biology course including basic biochemistry, cell biology, cell metabolism and energetics, photosynthesis, genetics, evolution, taxonomy, bacteria, and viruses. A research component is required for honors credit. Lecture Hrs = 3, Lab Hrs = 3, Fee \$20	4 CR	BIOL 2401 Human Anatomy and Physiology I Prerequisite: MATH, READ, WRITE. This course consists of the fundamentals of human anatomy and physiology with the emphasis on etiology and functions of anatomical systems. Laboratory includes dissection of a mammal, study of selected mammalian organs, histological studies, and physiological experiments. Lecture Hrs = 3, Lab Hrs = 3, Fee \$20	4 CR	BMGT 1307 High Performance Work Teams Prerequisite: READ Basic principles of building and sustaining teams in organizations including team dynamics and process improvement. Lecture Hrs = 3, Lab Hrs = 0	3 CR
		BIOL 2402 Human Anatomy and Physiology II Prerequisite: BIOL 2401 with a grade of "C" or higher; READ, MATH, WRITE. A continuation of BIOL 2401. Lecture Hrs = 3, Lab Hrs = 3, Fee \$20	4 CR	BMGT 1333 Principles of Selling Prerequisite: READ Introduction to the selling process and its application to all forms of sales. Identification of the elements of the communication process between buyers and sellers in business and examination of the legal regulations and ethical issues of business which affect salespeople. Lecture Hrs = 3, Lab Hrs = 0	3 CR

Ω Indicates courses taught with optional honors contracts.

Σ Indicates honors courses.

See page 20 for additional information on the Honors Program.

BMGT 1383, 2382, 2383 3 CR
Cooperative Education - Business Administration and Management, General

Prerequisite: READ

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

Lecture Hrs = 1, Lab Hrs = 20

BMGT 2303 3 CR
Problem Solving and Decision Making

Prerequisite: READ

Decision making and problem solving processes in organizations, utilizing logical and creative problem solving techniques. Application of theory is provided by experiential activities such as small group discussions, case studies, and the use of other managerial decision aids.

Lecture Hrs = 3, Lab Hrs = 0

BMGT 2309 3 CR
Leadership

Prerequisite: READ

Concepts of leadership and its relationship to management. Prepares the student with leadership and communication skills needed to inspire and influence.

Lecture Hrs = 3, Lab Hrs = 0

BMGT 2331 3 CR
Total Quality Management

Prerequisite: READ

Quality of productivity in organizations. Includes planning for quality throughout the organization, analysis of costs of quality, and employee empowerment.

Lecture Hrs = 3, Lab Hrs = 0

BMGT 2347 3 CR
Critical Thinking and Problem Solving

Prerequisite: READ

Instruction in interpreting data for effective problem solving and recommending corrective action with emphasis on a structured approach to critical thinking and problem solving in a team environment.

Lecture Hrs = 3, Lab Hrs = 0

BUSG 2305 3 CR
Business Law/Contracts

Prerequisite: READ

Principles of law which form the legal framework for business activity including applicable statutes, contracts, and agency. Topics include the study of administrative and regulatory agencies which govern business transactions, business crimes and torts.

Lecture Hrs = 3, Lab Hrs = 0

BUSG 2309 3 CR
Small Business Management

Prerequisite: READ

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

Lecture Hrs = 3, Lab Hrs = 0

BUSG 2317 3 CR
Business Law/Commercial

Prerequisite: READ

The relationship of law and business as they relate to commercial transactions. Topics include sales contracts, negotiable instruments, commercial paper, partnerships, corporations, bankruptcy, and real property.

Lecture Hrs = 3, Lab Hrs = 0



BUSI 1301 3 CR
Business Principles

Prerequisite: READ

A survey course in business administration, including the principles and functions of modern business organizations, and principles of international business and business ethics.

Lecture Hrs = 3, Lab Hrs = 0

BUSI 1307 3 CR
Personal Finance

Prerequisite: READ

This course equips students to make better informed decisions on personal finance questions covering such areas as budgeting, charge accounts, installment buying, savings, use of banking facilities, borrowing, insurance, annuities, social security, home buying, taxes, investments, wills, trusts, and estates.

Lecture Hrs = 3, Lab Hrs = 0

BUSI 2301 3 CR
Business Law

Prerequisite: READ

Principles of law which form the legal framework for business activity.

Lecture Hrs = 1, Lab Hrs = 0

BUSI 2371 3 CR
International Business

Prerequisite: BUSI 1301. READ

This course focuses on the business concepts, the nature and scope of international business, global strategies, and international policies and ethics. Emphasis is also placed on government regulation of multinational business organizations, sources of international law, social policy, legal institutions, and other laws affecting international business.

Lecture Hrs = 3, Lab Hrs = 0

CDAP 200 (formerly 0200) 0 CR
Career Development and Planning

Prerequisite: Reading of CPT = 46+

Designed to help students identify personal strengths by exploring values, interests and skills through group and individual exercises, use of the Career and Transfer Center and informational interviews. Career planning and decision making will be discussed and explored.

Lecture Hrs = 2, Lab Hrs = 0

CHEM 1405 Ω 4 CR
Introductory Inorganic Chemistry

Prerequisite: MATH, READ.

An introductory course in inorganic chemistry for liberal arts and other nontechnical majors. This course satisfies requirements for most nursing students and other allied health majors. Covers general principles of chemistry, description of elements and compounds, chemical laws, application of chemistry to modern living. Credit will not be given for both CHEM 1405 and CHEM 1411 or 1412.

Lecture Hrs = 3, Lab Hrs = 3, Fee \$20

CHEM 1411 $\Omega \Sigma$ 4 CR
General Chemistry I

Prerequisite: MATH 330 (or equivalent test score of "4") or consent of instructor. READ. The study of fundamental concepts and laws underlying chemistry, including states of matter, atomic structure, periodic table, chemical bonding, chemical reactions, solutions, gas laws, properties of solids and liquids, qualitative and quantitative analysis including instrumental methods.

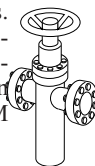
Lecture Hrs = 3, Lab Hrs = 3, Fee \$20

CHEM 1412 4 CR
General Chemistry II

Prerequisite: CHEM 1411 or consent of instructor. READ, MATH

A continuation of CHEM 1411. Study of equilibrium, oxidation-reduction reactions, electrochemistry, chemical thermodynamics, chemical kinetics, solutions, solubility of salts, acids and bases, buffers, properties of elements in the periodic groups, complexions, introductory organic chemistry, systematic qualitative analysis of common cations and anions, and quantitative analysis including instrumental methods.

Lecture Hrs = 3, Lab Hrs = 3, Fee \$20



A prerequisite of READ, MATH, or WRITE indicates that the course has a skills prerequisite based on scores on local placement tests or their equivalent.

CHEM 1419 Ω	4 CR	CNBT 2318	3 CR	COMM 2220	2 CR
Introductory Organic Chemistry		Construction Tools and Techniques		Intermediate Recording Techniques	
Prerequisite: MATH, READ.		Prerequisite: READ		Prerequisite: COMM 2303 or permission of instructor. READ	
An introductory course in organic chemistry for liberal arts and other nontechnical majors. This course satisfies requirements for most nursing students and other allied health majors. Covers basic chemical principles, the chemistry of carbon and its compounds, fuels, polymers, foods and nutrition, and physiologically active compounds and application of organic chemistry to modern living. Credit will not be given for both CHEM 1419 and CHEM 1411 or 1412.		Comprehensive study of the selection and use of hand tools, portable power and stationary power tools and related construction equipment. Emphasis on safety in the use of tools and equipment.		This course is designed for hands-on training in the studio. Students will be taught how to begin a session, to run a session and to end a session. They will explore the art of sound recording and its various approaches. Class will explore mixing concepts, bussing and routing concepts, the use of effects and dynamic processing and project conceptualizations. Some of the key topics that will be discussed in this class are familiarization with studio equipment, studio paperwork, tracking techniques, and mixing techniques.	
Lecture Hrs = 3, Lab Hrs = 3, Fee \$20		Lecture Hrs = 3, Lab Hrs = 0, Fee \$6		Lecture Hrs = 2, Lab Hrs = 3	
CHEM 2401	4 CR	COMM 1129, 1130, 2129, 2130 Ω	1 CR	COMM 2303	3 CR
Analytical Environmental Chemistry		The Lantern		Beginning Audio Recording Techniques	
Prerequisite: CHEM 1411 and CHEM 1412. READ		Prerequisite: READ, WRITE		Prerequisite: READ	
The principles and methods of quantitative chemical analysis dealing primarily with volumetric and gravimetric analysis and containing a brief introduction to instrumental methods. The laboratory consists of environmental analysis of air and water samples using standard methods commonly used in industry.		Participation on the campus newspaper which is published six times each semester. Students serve as beat reporters. Open to all students interested in journalism.		The objective of this course is to introduce the student into the world of audio recording. Student will be given a fundamental understanding of the nature of sound: the waveform and its seven main properties, the stages of sound reflection through an acoustic environment and the wave-cycle. Student will also be given a thorough understanding of microphone design/construction, typical studio layout and basic design characteristic for an acoustically "sound" studio and how these topics relate directly to microphone application in the recording environment.	
Lecture Hrs = 3, Lab Hrs = 3, Fee \$20		Lecture Hrs = 1, Lab Hrs = 3, Fee \$4		Lecture Hrs = 3, Lab Hrs = 0	
CHEM 2423	4 CR	COMM 1131, 1132, 2131, 2132 Ω	1 CR	COMM 2305	3 CR
Organic Chemistry I		Parallax		Business Publication Design	
Prerequisite: CHEM 1411 and CHEM 1412. READ		Prerequisite: READ, WRITE		Prerequisite: Writing Placement Test score between 6-7 or completion of ENGL 0302 with a grade of "3". READ	
A study of the nomenclature, mechanism of reactions, synthesis of organic compounds, isolation and analysis of organic compounds, and determination of physical constants. Includes both the aliphatic and aromatic hydrocarbons and their derivatives, cis/trans and optical isomerism.		Participation on the student arts and entertainment magazine published six times annually. Open to all students interested in journalism, photography, popular entertainment and cultural events. Credit is earned by working on the production of the magazine.		Technical emphasis on design and production of printed materials such as reports, brochures, booklets and manuals. Subjects covered will include typography, layout and effective use of color and graphic effects. This course is computer-based.	
Lecture Hrs = 3, Lab Hrs = 3, Fee \$20		Lecture Hrs = 1, Lab Hrs = 3, Fee \$4		Lecture Hrs = 3, Lab Hrs = 3	
CHEM 2425	4 CR	COMM 1171	1 CR	COMM 2309	3 CR
Organic Chemistry II		Benchmark		News Editing	
Prerequisite: CHEM 2423. READ		Prerequisite: READ		Prerequisite: COMM 2311. READ, WRITE	
A continuation of CHEM 2423 which includes study of aldehydes and ketones, amines, alcohols, carboxylic acids and derivatives, amino acids and proteins, and carbohydrates. Continued study of the analysis of organic compounds, including instrumental methods.		A lab in which students will produce a literary magazine from submissions by students, faculty and staff from across campus.		A study of the fundamentals of copy editing for printed media, including page makeup, headline writing, type selection and usage, and copyreading. Concurrent enrollment in <i>The Lantern</i> or <i>Parallax</i> is required. This course taught in spring semester only.	
Lecture Hrs = 3, Lab Hrs = 3, Fee \$20		Lecture Hrs = 3, Lab Hrs = 3, Fee \$4		Lecture Hrs = 3, Lab Hrs = 0, Fee \$4	
CJSA 2382	3 CR	COMM 1307	3 CR		
Cooperative Education - Criminal Justice Studies		Introduction to Mass Communications			
Prerequisite: Consent of instructor. READ		Prerequisite: READ, WRITE			
Career related activities encountered in the student's area of specialization are offered through a cooperative agreement between the college, employer, and student. Under supervision of the college and the employer, the student combines classroom learning with work experience. Directly related to a technical discipline, specific learning objectives guide the student through the paid or unpaid work experience. The course may be repeated if topics and learning outcomes vary.		A general study of the mass media with emphasis on print, broadcast, and film. Includes the interrelationship of mass media in modern society with reference to its evolution. Gives the non-journalism major the knowledge to be a more intelligent user of the mass media. Introduces the journalism major to all areas of journalism stressing responsibility and ethics. This course taught in fall semester only.			
Lecture Hrs = 1, Lab Hrs = 0, Ext = 15		Lecture Hrs = 3, Lab Hrs = 0, Fee \$4			
		COMM 2122	1 CR		
		Advanced Recording and Production Techniques			
		Prerequisite: COMM 2220 or permission of instructor. READ			
		This course is designed to take those who have completed the earlier audio courses and bring them into the realm of studio projects while familiarizing them with key aspects of the professional environment. Some of the main topics that will be discussed in this class are development of project presentation, development of studio procedure, refinement of tracking skills, and development of mixing skills.			
		Lecture Hrs = 1, Lab Hrs = 3			

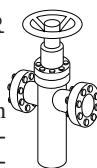
Ω Indicates courses taught with optional honors contracts.

Σ Indicates honors courses.

See page 20 for additional information on the Honors Program.

COMM 2311 Reporting I <i>Prerequisite:</i> READ, WRITE A general study of newspaper writing, interviewing, development of news judgment, the news concept, and the qualities of news. Ability to type is strongly recommended. Concurrent registration for the <i>Lantern</i> or <i>Parallax</i> is required. This course taught in fall semester only. Lecture Hrs = 3, Lab Hrs = 1, Fee \$4	3 CR	COSC 1301 Microcomputer Applications <i>Prerequisite:</i> READ Overview of computer information systems. Introduces computer hardware, software, procedures, systems, and human resources and explores their integration and application in business and other segments in society. The fundamentals of computer problem solving and programming in a higher level programming language may be discussed and applied. Lecture Hrs = 3, Lab Hrs = 0, Fee \$10	3 CR	CPMT 1407 Electronic and Computer Skills <i>Prerequisite:</i> READ The study of modern electronic construction techniques including the application of the most common hand tools used in disassembly, repair, and re-assembly of electronics and computer components. Lecture Hrs = 3, Lab Hrs = 3, Fee \$6	4 CR
COMM 2324 Electronic Music I (Editing Hard Disc) <i>Prerequisite:</i> COMM 2220, COSC 1301. READ This course is designed for the serious engineer endeavoring to enter the world of audio recording. Student will be taught the fundamentals of Hard Disc Recording (HDR) (tracking, sample rates, time code, frame rates, editing and mixing, etc.) for the purpose of creating tracks/loops, repairing damaged audio and recording with Mac (Apple Corp) based software. Additionally, such topics as DAW and HDR technology will be discussed in their relationship to studio design and function. Lecture Hrs = 3, Lab Hrs = 3, Fee \$10	3 CR	COSC 1415 Fundamentals of Programming <i>Prerequisite:</i> COSC 1301. READ Introduction to computer programming. Emphasis on the fundamentals of structured design, development, testing, implementation, and documentation. Includes coverage of language syntax, data and file structures, input/output devices, and disks/files. Lecture Hrs = 3, Lab Hrs = 3, Fee \$10	4 CR	CPMT 1411 Introduction to Computer Maintenance <i>Prerequisite:</i> READ A study of the information for the assembly of a microcomputer system. Emphasis on the evolution of microprocessors and microprocessor bus structures. Course prepares student to successfully complete the A+ certification hardware examination. Lecture Hrs = 3, Lab Hrs = 3, Fee \$6	4 CR
COMM 2325 Electronic Music II (MIDI Interface) <i>Prerequisite:</i> READ An overview (history, systems, application) of Musical Instrument digital Interface (MIDI). Hardware requirements, computer numbering systems, channels, modes, MIDI language implemented with computer based hard disc recording, synthesizer editing, digital sampling, transfer of audio data, and CD mastering. Student will complete projects using synthesis techniques, edit samples and synthesize voices. Lecture Hrs = 3, Lab Hrs = 3, Fee \$10	3 CR	COSC 1420 "C" Language Programming <i>Prerequisite:</i> COSC 1301, or consent of instructor. READ Introduction to computer programming. Emphasis on the fundamentals of structured design, development, testing, implementation, and documentation. Includes coverage of language syntax, data and file structures, input/output devices, and disks/files utilizing "C" language. Lecture Hrs = 3, Lab Hrs = 3, Fee \$10	4 CR	CPMT 1445 Computer Systems Maintenance <i>Prerequisite:</i> READ Examination of the functions of the components within a computer system. Development of skills in the use of test equipment and maintenance aids. Lecture Hrs = 3, Lab Hrs = 3, Fee \$6	4 CR
COMM 2389 Ω Communications Cooperative <i>Prerequisite:</i> READ, permission of instructor This course provides students with work-related experience in any of the following areas: journalism, mass communications, electronic broadcast media, public relations, advertising, audio recording, graphic design, web page development. Lecture Hrs = 1, Lab Hrs = 6	3 CR	COSC 2415 Data Structures <i>Prerequisite:</i> COSC 1415, or consent of instructor. READ Further applications of programming techniques. Topics may include file access methods, data structures and modular programming, program testing and documentation, and other topics not normally covered in an introductory computer programming course. Lecture Hrs = 3, Lab Hrs = 3, Fee \$10	4 CR	CPMT 1449 Computer Networking Technology <i>Prerequisite:</i> CPMT 1411, READ A beginning course in computer networks with focus on networking fundamentals, terminology, hardware, software, and network architecture. A study of local/wide area networking concepts and networking installations and operations. Lecture Hrs = 3, Lab Hrs = 3, Fee \$6	4 CR
COMM 2389 A Audio Recording Cooperative <i>Prerequisite:</i> READ This course is designed to complete the beginning engineer's experience of 'studio-life' and prepare him/her for the professional environment. This course will teach the student fundamental procedures associated with studio management. These responsibilities include: basic bookkeeping, scheduling sessions and a detailed look at work ethics. Lecture Hrs = 3, Lab Hrs = 4	3 CR	COSS 300 (formerly 0300) Study Skills <i>Prerequisite:</i> READ Techniques of study such as time management, listening and note-taking, text marking, library and research skills, preparation for examinations, and use of learning resources. Lecture Hrs = 3, Lab Hrs = 0	0 CR	CPMT 1491 Special Topics in Computer Maintenance Technology/Technician <i>Prerequisite:</i> CPMT 1411. READ 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. Lecture Hrs = 3, Lab Hrs = 3, Fee \$6	4 CR
				CPMT 2445 Computer System Troubleshooting <i>Prerequisite:</i> CPMT 1411. READ Principles and practices involved in computer system troubleshooting techniques and repair procedures including advanced diagnostic test programs and the use of specialized test equipment. Lecture Hrs = 3, Lab Hrs = 3, Fee \$6	4 CR
				CPMT 2449 Advanced Computer Networking Technology <i>Pre-Corequisite:</i> CPMT 2445. READ An in-depth study of network technology with emphasis on network operating systems, network connectivity, hardware, and software.	4 CR

A prerequisite of READ, MATH, or WRITE indicates that the course has a skills prerequisite based on scores on local placement tests or their equivalent.



Mastery of implementation, troubleshooting, and maintenance of LAN and/or WAN network environments.

Lecture Hrs = 3, Lab Hrs = 3, Fee \$6

CPMT 2488 4 CR
Internship – Computer Maintenance Technology/Technician

Prerequisite: CPMT 1411. *READ*

A basic, intermediate, or advanced type of non-health professions work-based instruction that helps students synthesize new knowledge, apply previous knowledge, or gain experience managing the workflow. Practical experience is simultaneously related to theory. Direct supervision is provided by the faculty or the work supervisor. An internship may be a paid or unpaid learning experience.

Lecture Hrs = 0, Lab Hrs = 0,
External Lab Hrs = 15

CRIJ 1301 3 CR
Introduction to Criminal Justice

Prerequisite: *READ*

History, philosophy, and ethical considerations of criminal justice; the nature and impact of crime; and an overview of the criminal justice system, including law enforcement and court procedures.

Lecture Hrs = 3, Lab Hrs = 0

CRIJ 1306 3 CR
The Courts and Criminal Procedure

Prerequisite: *READ*

Study of the judiciary in the American criminal justice system and the adjudication processes and procedures.

Lecture Hrs = 3, Lab Hrs = 0

CRIJ 1307 3 CR
Crime in America

Prerequisite: *READ*

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 3 CR
Fundamentals of Criminal Law

Prerequisite: *READ*

Study of criminal law, its philosophical and historical development, major definitions and concepts, classifications and elements of crime, penalties using Texas statutes as illustrations, and criminal responsibility.

Lecture Hrs = 3, Lab Hrs = 0

CRIJ 1313 3 CR
Juvenile Justice System

Prerequisite: *READ*

A study of the juvenile justice process. Topics include specialized juvenile law, role of the juvenile law, role of the juvenile courts, role of police agencies, role of correctional agencies, and theories concerning delinquency.

Lecture Hrs = 3, Lab Hrs = 0

CRIJ 2313 3 CR
Correctional Systems and Practices

Prerequisite: *READ*

A study of the role of corrections in the criminal justice system. Topics include organization and theory of correctional systems, institutional operations, management, alternatives to institutionalization, treatments and rehabilitation, and current and future issues.

Lecture Hrs = 3, Lab Hrs = 0

CRIJ 2314 3 CR
Criminal Investigation

Prerequisite: *READ*

Study of investigative theory, the collection and preservation of evidence, sources of information, concepts of interviewing and interrogation, the use of forensic sciences, and trial preparation.

Lecture Hrs = 3, Lab Hrs = 0

CRIJ 2323 3 CR
Legal Aspects of Law Enforcement

Prerequisite: *READ*

Exploration of police authority. Topics include responsibilities and constitutional restraints, law of arrest, search and seizure, and police liability.

Lecture Hrs = 3, Lab Hrs = 0

CRIJ 2328 3 CR
Police System and Practices

Prerequisite: *READ*

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

Lecture Hrs = 3, Lab Hrs = 0

CSME 1330 3 CR
Orientation to Nail Technology

Prerequisite: *High school diploma or equivalent or consent of instructor. READ*

An overview of the fundamental skills and knowledge necessary for the field of nail technology.

Lecture Hrs = 1, Lab Hrs = 8, Fee \$3,
Insurance \$10

CSME 1431 4 CR
Principles of Nail Technology I

Prerequisite: *High school diploma or equivalent or consent of instructor. READ*

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, Fee \$4
Insurance \$10

CSME 1434 4 CR
Cosmetology Instructor I

Prerequisite: *Valid operator license - Texas Cosmetology Commission, high school diploma or equivalent. READ*

The fundamentals of instruction of cosmetology students.

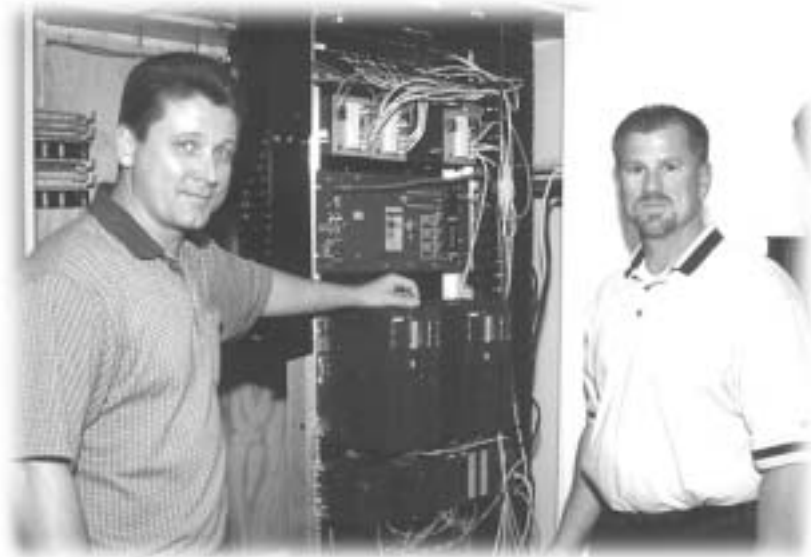
Lecture Hrs = 2, Lab Hrs = 6, Fee \$4
Insurance \$10

CSME 1435 4 CR
Orientation to the Instruction of Cosmetology

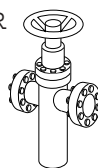
Prerequisite: *Valid operator license - Texas Cosmetology Commission, high school diploma or equivalent. READ*

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

Lecture Hrs = 2, Lab Hrs = 6, Fee \$4
Insurance \$10



<p>CSME 1441 4 CR Principles of Nail Technology II Pre or corequisite: High school diploma or equivalent, CSME 1431, or consent of instructor. <i>READ</i> Advanced concepts and principles of nail technology. Topics include advanced instruction in anatomy, physiology, theory, and related skills of nail technology. Lecture Hrs = 2, Lab Hrs = 8, Fee \$4 Insurance \$10</p>	<p>CSME 2343 3 CR Salon Development Prerequisite: High school diploma or equivalent or consent of instructor. <i>CSME 1505. READ</i> Exploration of salon development. Topics include professional ethics and goals, salon operation, and record keeping. Lecture Hrs = 1, Lab Hrs = 4, Fee \$3 Insurance 10</p>	<p>Preparation for the Texas Cosmetology Commission Operator Examination. Lecture Hrs = 2, Lab Hrs = 6, Fee \$4 Insurance \$10</p>
<p>CSME 1453 4 CR Chemical Reformation and Related Theory Prerequisite: High school diploma or equivalent or consent of instructor. <i>READ</i> Presentation of the theory and practice of chemical reformation. Topics include terminology, application, and workplace competencies related to chemical reformation. Lecture Hrs = 2, Lab Hrs = 8, Fee \$4 Insurance \$10</p>	<p>CSME 2410 4 CR Intermediate Haircutting and Related Theory Prerequisite: High school diploma or equivalent or consent of instructor. <i>CSME 1505. READ</i> Advanced concepts and practice of haircutting. Topics include haircuts utilizing scissors, razor, and/or clippers. Lecture Hrs = 2, Lab Hrs = 8, Fee \$4 Insurance \$10</p>	<p>CSME 2444 4 CR Cosmetology Instructor IV Prerequisite: Valid operator license, Texas Cosmetology Commission, high school diploma or equivalent, CSME 1434 or consent of instructor. <i>READ</i> Advanced concepts of instruction in a cosmetology program. Topics include demonstration and implementation of advanced evaluation and assessment techniques. Lecture Hrs = 2, Lab Hrs = 6, Fee \$4 Insurance \$10</p>
<p>CSME 1501 5 CR Orientation to Cosmetology Prerequisite: High school diploma or equivalent or consent of instructor. <i>READ</i> An overview of the skills and knowledge necessary for the field of cosmetology. Lecture Hrs = 3, Lab Hrs = 8, Fee \$5 Insurance \$10</p>	<p>CSME 2414 4 CR Cosmetology Instructor II Prerequisite: Valid operator license, Texas Cosmetology Commission, high school diploma or equivalent, CSME 1434 or consent of instructor. <i>READ</i> A continuation of the fundamentals of instruction of cosmetology students. Lecture Hrs = 2, Lab Hrs = 6, Fee \$4 Insurance \$10</p>	<p>CSME 2445 4 CR Instructional Theory and Clinic Operation Prerequisite: Valid operator license, Texas Cosmetology Commission, high school diploma or equivalent, CSME 1434 or consent of instructor. <i>READ</i> An overview of the objectives required by the Texas Cosmetology Commission Instructor Examination. Lecture Hrs = 2, Lab Hrs = 6, Fee \$4 Insurance \$10</p>
<p>CSME 1505 5 CR Fundamentals of Cosmetology Prerequisite: High school diploma or equivalent or consent of instructor. <i>READ</i> A course in the basic fundamentals of cosmetology. Topics include service preparation, manicure, facial, chemical services, shampoo, haircut, wet styling, comb out, and salon management. Lecture Hrs = 3, Lab Hrs = 8, Fee \$5 Insurance \$10</p>	<p>CSME 2415 4 CR Cosmetology Instructor III Prerequisite: Valid operator license, Texas Cosmetology Commission, high school diploma or equivalent, CSME 1434 or consent of instructor. <i>READ</i> Presentation of assignments and evaluation techniques for a cosmetology program. Lecture Hrs = 2, Lab Hrs = 6, Fee \$4 Insurance \$10</p>	<p>CSME 2501 5 CR The Principles of Hair Coloring and Related Theory Prerequisite: High school diploma or equivalent, CSME 1505 or consent of instructor. <i>READ</i> Presentation of the theory and practice of hair color and chemistry. Topics include terminology, application, and workplace competencies related to hair color and chemistry. Lecture Hrs = 3, Lab Hrs = 8, Fee \$5 Insurance \$10</p>
<p>CSME 1551 5 CR Artistry of Hair, Theory and Practice Pre or corequisite: High school diploma or equivalent, or consent of instructor, CSME 1505. <i>READ</i> Instruction in the artistry of hair design. Topics include theory, techniques, and application of hair design. Lecture Hrs = 3, Lab Hrs = 8, Fee \$5 Insurance \$10</p>	<p>CSME 2439 4 CR Advanced Hair Design Prerequisite: High school diploma or equivalent, CSME 1505 or consent of instructor. <i>READ</i> Advanced concepts in the theory and practice of hair design. Lecture Hrs = 2, Lab Hrs = 8, Fee \$4 Insurance \$10</p>	<p>CSME 2530 5 CR Nail Enhancement Prerequisite: High school diploma or equivalent, CSME 1431 or consent of instructor. <i>READ</i> A course in the general principles of the theory and application of artificial nails and related technology. Lecture Hrs = 3, Lab Hrs = 6, Fee \$5, Insurance \$10</p>
<p>CSME 2337 3 CR Advanced Cosmetology Techniques Prerequisite: High school diploma or equivalent or consent of instructor. <i>CSME 1505. READ</i> Mastery of advanced cosmetology techniques including hair designs, professional cosmetology services, and workplace competencies. Lecture Hrs = 1, Lab Hrs = 8, Fee \$3 Insurance \$10</p>	<p>CSME 2441 4 CR Preparation for Texas Cosmetology Commission Examination Prerequisite: High school diploma or equivalent, CSME 1505 or consent of instructor. <i>READ</i></p>	<p>DAAC 1304 3 CR Pharmacology of Addiction Prerequisite: <i>READ</i> Psychological, physiological, and sociological effects of mood altering substances and behaviors and their implications for the addiction process are discussed. Emphasis is placed on pharmacological effects of tolerance, dependency/withdrawal, cross addiction, and drug interaction. Lecture Hrs = 3, Lab Hrs = 0</p>

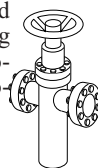


A prerequisite of READ, MATH, or WRITE indicates that the course has a skills prerequisite based on scores on local placement tests or their equivalent.

- DAAC 1307 3 CR
Addicted Family Intervention
Prerequisite: READ
 An introduction to the family as a dynamic system focusing on the effects of addiction pertaining to family roles, rules, and behavior patterns. Discuss the impact of mood altering substances and behaviors and therapeutic alternatives as they relate to the family from a multicultural and transgenerational perspective.
 Lecture Hrs = 3, Lab Hrs = 0
- DAAC 1309 3 CR
Assessment Skill of Alcohol and Other Drug Addictions
Prerequisite: READ
 Examines procedures by which a counselor/program identifies and evaluates an individual's strengths, weaknesses, problems, and needs which will be used in the development of a treatment plan. Prepares the student to appropriately explain assessment results and individual rights to clients.
 Lecture Hrs = 3, Lab Hrs = 0
- DAAC 1311 3 CR
Counseling Theories
Prerequisite: READ
 An introduction to major theories of various treatment modalities including Reality therapy, Psycho-dynamic, grief therapy, Client-centered therapy, Rational-Emotive Therapy, cognitive-behavioral approaches such as life skills training, behavior modification, and the introduction to experiential therapies as they relate to detoxification, residential, outpatient, and extended treatment.
 Lecture Hrs = 3, Lab Hrs = 0
- DAAC 1314 3 CR
Dynamics of Group Counseling
Prerequisite: READ
 An introduction to the patterns and dynamics of group interactions across the life span. Focus includes group therapy, structure, types, stages, development, leadership, therapeutic factors, the impact of groups on the individual, group growth, and behavior. Effective group facilitation skills and techniques used to address special population issues and needs are covered. Effective case management and record keeping are addressed.
 Lecture Hrs = 3, Lab Hrs = 0
- DAAC 1317 3 CR
Basic Counseling Skills
Prerequisite: READ
 This course is designed to facilitate development of the basic communication skills necessary to develop an effective helping relationship with clients. Includes the utilization of special skills to assist individuals, families, or groups in achieving objectives through exploration of a problem and its ramifications; examination of attitudes and feelings; consideration of alternative solutions; and decision making.
 Lecture Hrs = 3, Lab Hrs = 0
- DAAC 1319 3 CR
Introduction to Alcohol and Other Drug Addictions
Prerequisite: READ
 Causes and consequences of addiction as they relate to the individual, family, community, and society are discussed. Response alternatives regarding intervention, treatment, education, and prevention are reviewed. Competencies and requirements for licensure in Texas are explained. Addiction issues related to diverse populations are presented.
 Lecture Hrs = 3, Lab Hrs = 0
- DAAC 1341 3 CR
Counseling Alcohol and Other Drug Addictions
Prerequisite: READ. *Instructor's permission.*
 This course will focus on special skills and techniques in the application of counseling skills for the Alcohol and Other Drug (AOD) client. Design and utilization of treatment planning using a treatment team approach will be introduced. Confidentiality and ethical issues will be reviewed and practiced.
 Lecture Hrs = 3, Lab Hrs = 0
- DAAC 1343 3 CR
Current Issues
Prerequisite: READ
 A study of issues that impact addiction counseling. Special populations, dual diagnosis, ethics, gambling, and infectious diseases associated with addiction counseling will be investigated.
 Lecture Hrs = 3, Lab Hrs = 0
- DAAC 2280 2 CR
Cooperative Education-Alcohol/Drug Abuse Counseling
Prerequisite: *Instructor's permission.* READ
 Career related activities encountered in the student's area of specialization are offered through a cooperative agreement between the college, employer, and student. Under supervision of the college and the employer, the student combines classroom learning with work experience. Directly related to a technical discipline, specific learning objectives guide the student through the paid work experience. This course may be repeated if topics and learning outcomes vary.
 Lecture Hrs = 1, Lab Hrs = 0, External Hrs = 10, Insurance \$18
- DAAC 2281 2 CR
Cooperative Education-Alcohol/Drug Abuse Counseling
Prerequisite: *Instructor's permission.* READ
 Career related activities encountered in the student's area of specialization are offered through a cooperative agreement between the college, employer, and student. Under supervision of the college and the employer, the student combines classroom learning with work experience. Directly related to a technical discipline, specific learning objectives guide the student through the paid work experience. This course may be repeated if topics and learning outcomes vary.
 Lecture Hrs = 1, Lab Hrs = 0, External Hrs = 10, Insurance \$18
- DFTG1405 4 CR
Technical Drafting
Prerequisite: READ
 Introduction to the principles of drafting to include terminology and fundamentals, including size and shape descriptions, projection methods, geometric construction, sections, auxiliary views, and reproduction processes. Students will be taught the care and use of their drafting instruments and the methodology of dimensioning.
 Lecture Hrs = 3, Lab Hrs = 3, Fee \$4
- DFTG 1409 4 CR
Basic Computer-Aided Drafting
Pre or corequisite: DFTG 1405 or consent of instructor. READ
 An introduction to basic computer-aided drafting. Emphasis is placed on drawing setup; creating and modifying geometry; storing and retrieving predefined shapes; placing, rotating, and scaling objects, adding text and dimensions, using layers, coordinating systems; as well as input and output devices.
 Lecture Hrs = 3, Lab Hrs = 3, Fee \$10
- DFTG 1413 4 CR
Drafting for Specific Occupations
Prerequisite: DFTG 2417, or consent of instructor. READ
 Discussion of theory and practice with drafting methods and the terminology required for non-drafting-majors to prepare working drawings in their occupational fields. Introduces student to the study of pipe drawings, symbols, and terminology, isometric and pictorial presentations, and dimensioning. (Note: Board Piping)
 Lecture Hrs = 3, Lab Hrs = 3, Fee \$4
- DFTG 1417 4 CR
Architectural Drafting-Residential
Prerequisite: DFTG 1433 and DFTG 2417, or consent of instructor. READ
 Architectural drafting procedures, practices, and symbols, including preparation of detailed working drawings for residential structure with emphasis on light frame construction methods. Fundamentals of residential architectural drafting are taught including current office production techniques.
 Lecture Hrs = 3, Lab Hrs = 3, Fee \$10
- DFTG 1433 4 CR
Mechanical Drafting
Prerequisite: DFTG 1409, or consent of instructor. READ
 An intermediate course covering detail drawings with proper dimensioning and tolerances, use of sectioning techniques, common fasteners, isometrics and oblique drawings, including bill of materials.
 Lecture Hrs = 3, Lab Hrs = 3, Fee \$10

DFTG 1458 Electrical/Electronics Drafting <i>Prerequisite:</i> DFTG 1433 and DFTG 2417, or consent of instructor. <i>READ</i> A study of the principles of layout of electrical and electronic drawings, stressing modern representation used on block diagrams, schematic diagrams, logic diagrams, wiring/assembly drawings, printed circuit board layouts, motor control diagrams, power distribution diagrams, and electrical one-line diagrams. Lecture Hrs = 3, Lab Hrs = 3, Fee \$10	4 CR	utilize (a) previously gained skills, (b) reinforcement of skills through assignments utilizing those skills in a more advanced level and (c) train students to utilize self-reliance, research procedures, and communications skills to achieve successful completion of the course. Lecture Hrs = 3, Lab Hrs = 3, Fee \$10	DFTG 2412 Technical Illustration <i>Prerequisite:</i> DFTG 1433 and DFTG 2417, or consent of instructor. <i>READ</i> Topics include pictorial drawing including isometrics, obliques, perspectives, charts, and graphs; shaping and transfer lettering; and use of different media. Lecture Hrs = 3, Lab Hrs = 3, Fee \$10	4 CR
DFTG 1491 Special Topics in Drafting <i>Prerequisite:</i> DFTG 1405, DFTG 1409. <i>READ</i> 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. An examination of the engineering graphics program, MicroStation, its commands and presentation methods. Course will be presented as it relates/compares to like issues associated with AutoCAD. (Note: Introduction to MicroStation) Lecture Hrs = 3, Lab Hrs = 3, Fee \$10	4 CR	DFTG 2366 Practicum (Field Experience) Drafting <i>Prerequisite:</i> DFTG 1433 and DFTG 2417, or equivalent, or consent of instructor. <i>READ</i> Practical general training and experiences in the workplace. The college with the employer develops and documents an individualized plan for the student. The plan relates the workplace training and experiences to the student's general and technical course of study. The guided external experiences may be for pay or no pay. This course may be repeated if topics and learning outcomes vary. Lecture Hrs = 1, Lab Hrs = 0, Ext. Hrs = 20	DFTG 2417 Descriptive Geometry <i>Prerequisite:</i> DFTG 1405 or consent of instructor. <i>READ</i> Examination of the graphical solution to problems involving points, lines, and planes in space. Discussions and practical applications through problems and exercises will include determining the true size and shape of geometric entities, their relative position in space to other entities; topography concepts and terminology and practical problems relating to "cut and fill," "strike and dip" and determining graphic representation of land area cross-sections. Lecture Hrs = 3, Lab Hrs = 3, Fee \$4	4 CR
DFTG 1492 Special Topics in Architectural Drafting <i>Prerequisite:</i> DFTG 1433 and DFTG 2417, or consent of instructor. <i>READ</i> 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. This course will examine architectural drafting, modeling, and presentation techniques through board and/or computer-aided drafting. Lecture Hrs = 3, Lab Hrs = 3, Fee \$10	4 CR	DFTG 2400 Intermediate Architectural Drafting - Residential <i>Prerequisite:</i> DFTG 1433 and DFTG 2417, or equivalent, or consent of instructor. <i>READ</i> A continuation of principles and practices used in residential construction. Lecture Hrs = 3, Lab Hrs = 3, Fee \$10	DFTG 2419 Intermediate Computer-Aided Drafting <i>Prerequisite:</i> DFTG 1433, or consent of instructor. <i>READ</i> A continuation of practices and techniques used in basic computer-aided drafting emphasizing batched files, scripted files, customized program menus, and extracted attributes. Introduction to three-dimensional drafting. Lecture Hrs = 3, Lab Hrs = 3, Fee \$10	4 CR
DFTG 1493 Special Topics in Civil/Structural Drafting <i>Prerequisite:</i> DFTG 1433 and DFTG 2417, or consent of instructor. <i>READ</i> 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. This course is designed to utilize (a) previously gained skills, (b) reinforcement of skills through assignments utilizing those skills in a more advanced level and (c) train students to utilize self-reliance, research procedures, and communications skills to achieve successful completion of the course. Lecture Hrs = 3, Lab Hrs = 3, Fee \$10	4 CR	DFTG 2408 Instrumentation Drafting <i>Prerequisite:</i> DFTG 1433 and DFTG 2417, or consent of instructor. <i>READ</i> A study of the basic principles of instrumentation as applicable to industrial applications; fundamentals of measurement and control devices; currently used ISA (Instrument Society of America) symbology; basic flow sheet layout and drafting practices. Lecture Hrs = 3, Lab Hrs = 3, Fee \$4	DFTG 2421 Topographical Drafting <i>Prerequisite:</i> DFTG 2417, DFTG 1433 or equivalent, or consent of instructor. <i>READ</i> A course in map drafting. Emphasis is given to plotting of surveyors field notes, plotting elevations, contour drawings, plan and profiles, and laying out traverses. Lecture Hrs = 3, Lab Hrs = 3, Fee \$10	4 CR
DFTG 1495 Special Topics in Mechanical Drafting <i>Prerequisite:</i> DFTG 1433 and DFTG 2417, or consent of instructor. <i>READ</i> 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. This course is designed to	4 CR	DFTG 2410 Structural Drafting <i>Prerequisite:</i> DFTG 1433 and DFTG 2417, or consent of instructor. <i>READ</i> Discussion of detail drawings of structural shapes for fabrication with emphasis on framed and seated connectors and beam and column detailing. Designed to meet the standards of American Institute of Steel Construction, including units on concrete detailing conforming to American Concrete Institute standards. Lecture Hrs = 3, Lab Hrs = 3, Fee \$4	DFTG 2422 Pipe Drafting <i>Prerequisite:</i> DFTG 1413, DFTG 1433, and DFTG 2417, or consent of instructor. <i>READ</i> A study of pipe fittings, symbols, specifications and their applications to a piping process system. This application will be demonstrated through the creation of symbols and their usage in flow diagrams, plans, elevations, and isometrics. System of presentation will be via our most current AutoCAD release. Lecture Hrs = 3, Lab Hrs = 3, Fee \$10	4 CR
			DFTG 2428 Architectural Drafting - Commercial <i>Prerequisite:</i> DFTG 1433, or consent of instructor. <i>READ</i> Architectural drafting procedures, practices, and symbols including the preparation of detailed working drawings for a commercial building, with emphasis on commercial construction methods. Lecture Hrs = 3, Lab Hrs = 3, Fee \$10	4 CR

A prerequisite of READ, MATH, or WRITE indicates that the course has a skills prerequisite based on scores on local placement tests or their equivalent.



DFTG 2430 Civil Drafting <i>Prerequisite:</i> DFTG 1433 and DFTG 2417, or equivalent, or consent of instructor. <i>READ</i> An in-depth study of drafting methods and principles used in public works civil engineering. Lecture Hrs = 3, Lab Hrs = 3, Fee \$10	4 CR	DRAM 1120, 2120 Ω Theatre Arts Lab <i>Prerequisite:</i> <i>READ</i> Open to all students interested in theatre. Credit is earned for acting, technical work, or other participation. Limited to one semester credit hour each semester. Each course may be taken up to three times. Lecture Hrs = 0, Lab Hrs = 6, Fee \$4	1 CR	DRAM 2336 Voice and Diction <i>Prerequisite:</i> <i>READ</i> Open to all students interested in improving their diction. Development of the voice and proper diction. This class includes the learning and use of the International Phonetic Alphabet (IPA). Auditioning and interviewing will also be included in the class. Coaching of the individual student with the aid of audio taping and an audio journal. Same as SPCH 1342. Lecture Hrs = 3, Lab Hrs = 0	3 CR
DFTG 2432 Advanced Computer-Aided Drafting <i>Prerequisite:</i> DFTG 1433 and DFTG 2417, or equivalent, or consent of instructor. <i>READ</i> Exploration of the use of system customization for drawing production enhancement and the principles of data manipulation. Presentation of advanced applications, such as three-dimensional objects creation and linking graphic entities to external nongraphic data. Lecture Hrs = 3, Lab Hrs = 3, Fee \$10	4 CR	DRAM 1310 Introduction to the Theatre <i>Prerequisite:</i> <i>READ</i> An introduction to the nature of theatre art and the dramatic genres, and the functions of the basic practices of the playwright, actor, director, and designer in contemporary theatre. Lecture Hrs = 3, Lab Hrs = 0	3 CR	DRAM 2361 History of Theater I <i>Prerequisite:</i> <i>READ</i> Survey of growth and development of the theatre from its beginnings to 1660 with consideration of dramatic literature, physical theatre, style of presentation, and social significance of theatre. Lecture Hrs = 3, Lab Hrs = 0	3 CR
DFTG 2436 Computer-Aided Drafting Programming <i>Prerequisite:</i> DFTG 1452, or consent of instructor. <i>READ</i> Emphasis on the productivity of CAD software through development of computer-aided drafting programs with emphasis on database design, access techniques, and structure methods with particular application in engineering graphics. Lecture Hrs = 3, Lab Hrs = 3, Fee \$10	4 CR	DRAM 1330 Elementary Stagecraft <i>Prerequisite:</i> <i>READ</i> Introduction to the technical aspects of set design, lighting, sound, costumes, and makeup. Participation in the Drama Department's productions required. Lecture Hrs = 2, Lab Hrs = 2, Fee \$4	3 CR	DRAM 2362 History of Theater II <i>Prerequisite:</i> <i>READ</i> Survey of growth and development of the theatre from 1660 to the present with consideration of dramatic literature, physical theatre, style of presentation, and social significance of theatre. Lecture Hrs = 3, Lab Hrs = 0	3 CR
DFTG 2440 Solid Modeling/Design <i>Prerequisite:</i> DFTG 1433, DFTG 2417, or equivalent, or consent of instructor. <i>READ</i> A computer-aided modeling course. Development of three-dimensional drawings and models from engineering sketches and orthographic drawings and utilization of three-dimensional models in design work. Lecture Hrs = 3, Lab Hrs = 3, Fee \$10	4 CR	DRAM 1341 Principles of Theatrical Makeup <i>Prerequisite:</i> <i>READ</i> The principles of straight and character makeup, intensive practical application, and experience in stage productions are provided to the student. Lecture Hrs = 1, Lab Hrs = 2, Fee \$4	3 CR	DRAM 2366 History and Development of Motion Pictures <i>Prerequisite:</i> <i>READ</i> A survey of the history and development of motion pictures with emphasis on analysis and understanding of significant movements and schools of filmmaking, critical approaches, sociological impact, and visual aesthetics of motion pictures. Two lecture hours and one two-hour film screening a week for one semester. Lecture Hrs = 2, Lab Hrs = 2, Fee \$4	3 CR
DFTG 2444 Strength of Materials <i>Pre or Corequisite:</i> DFTG 1433, DFTG 2417. <i>READ</i> The study of internal effects of forces acting upon elastic bodies and the resulting changes in form and dimensions, including units on stress, shear, bending moments, and simple beam design. Lecture Hrs = 3, Lab Hrs = 3, Fee \$4	4 CR	DRAM 1351 Introduction to Acting <i>Prerequisite:</i> <i>READ</i> Introduction to the basic techniques of acting, with major emphasis on diction and character development. Opportunity to participate in the Drama Department's productions. Class scenes required. Lecture Hrs = 2, Lab Hrs = 2, Fee \$4	3 CR	<i>Economics 2301 and 2302 are designed to satisfy the six semester hour requirements in principles of economics for business administration and economics majors or minors and are prerequisites for most advanced courses in business administration or economics. Either ECON 2301 or ECON 2302 may be taken first. ECON 2301 is recommended for students who are taking economics as an elective. For students whose degree plan requires three hours of economics, the catalog of the institution where they plan to transfer should be consulted to see which course best meets the requirements.</i>	
DFTG 2459 Technical Presentations <i>Prerequisite:</i> DFTG 1433, DFTG 2417, or equivalent, or consent of instructor. <i>READ</i> A study of presentation techniques and methods used in the drafting field. Lecture Hrs = 3, Lab Hrs = 3, Fee \$10	4 CR	DRAM 1352 Advanced Acting <i>Prerequisite:</i> DRAM 1351 or consent of instructor. <i>READ</i> Study and practical experience in problems of creating characterization with emphasis on developing vocal and physical skill in acting. Lecture Hrs = 2, Lab Hrs = 2, Fee \$4	3 CR	ECON 2301 Principles of Economics: Macroeconomics <i>Prerequisite:</i> <i>READ, MATH</i> This course emphasizes macroeconomics; economic analysis of forces determining levels of income, prices, and employment; economic growth; explanation of economic terms and institutions; and consideration of current problems. Lecture Hrs = 3, Lab Hrs = 0	3 CR
		DRAM 2331 Advanced Stagecraft <i>Prerequisite:</i> DRAM 1330 or consent of instructor. <i>READ</i> General consideration of the art of the theatre as it relates to the stage, scenery, and lighting for college production. Participation in Drama Department's productions required. Lecture Hrs = 2, Lab Hrs = 2, Fee \$4	3 CR		

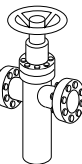
Ω Indicates courses taught with optional honors contracts.

∑ Indicates honors courses.

See page 20 for additional information on the Honors Program.

ECON 2302 Principles of Economics: Microeconomics <i>Prerequisite:</i> READ, MATH This course emphasizes microeconomics; economic analysis of decision making in perfect and imperfect product and factor markets, explanation of economic terms and institutions, and consideration of current problems. Lecture Hrs = 3, Lab Hrs = 0	3 CR	ELPT 1445 Commercial Wiring <i>Prerequisite:</i> READ Instruction in commercial wiring methods. Lecture Hrs = 3, Lab Hrs = 3, Fee \$4	4 CR	EMSP 1160 Clinical <i>Prerequisite:</i> READ <i>Corequisite:</i> EMSP 1501 A method of instruction providing detailed education, training and work-based experience, and direct patient/client care, generally at a clinical site. Specific detailed learning objectives are developed for each course by the faculty. On-site clinical instruction, supervision, evaluation, and placement is the responsibility of the college faculty. Clinical experiences are unpaid external learning experiences. Course may be repeated if topics and learning outcomes vary. Lecture Hrs = 0, Lab Hrs = 0, External Hrs = 6, Insurance Fee \$45	1 CR
EDUC 1301 Introduction to Education <i>Prerequisite:</i> READ Introduces students to teaching careers, credential requirements, educational philosophies, employment conditions, development of lesson plans, classroom management, discipline, and professional organizations. Field experience may be required. Lecture Hrs = 3, Lab Hrs = 0	3 CR	ELPT 1455 Electronics for Electricians <i>Prerequisite:</i> ELPT 1419. READ A study of electronic principles and the use of electronic devices by electricians. Lecture Hrs = 3, Lab Hrs = 3, Fee = \$6	4 CR	EMSP 1161 Clinical <i>Prerequisite:</i> Permission of instructor. READ <i>Corequisite:</i> EMSP 1338 or permission of instructor. A method of instruction providing detailed education, training and work-based experience, and direct patient/client care, generally at a clinical site. Specific detailed learning objectives are developed for each course by the faculty. On-site clinical instruction, supervision, evaluation, and placement is the responsibility of the college faculty. Clinical experiences are unpaid external learning experiences. Course may be repeated if topics and learning outcomes vary. Lecture Hrs = 0, Lab Hrs = 0, External Hrs = 6, Insurance Fee \$45	1 CR
ELPT 1321 Introduction to Electrical Safety and Tools <i>Prerequisite:</i> READ A comprehensive overview of safety rules and regulations and the selection, inspection, use, and maintenance of common tools for electricians. Lecture Hrs = 3, Lab Hrs = 0	3 CR	ELPT 2301 Journeyman Electrician Exam Review <i>Prerequisite:</i> READ Preparation for journeyman electrician licensure with emphasis on calculations and the National Electrical Code (NEC). Lecture Hrs = 3, Lab Hrs = 0	3 CR	EMSP 1260 Clinical <i>Prerequisite:</i> Permission of instructor. READ A method of instruction providing detailed education, training and work-based experience, and direct patient/client care, generally at a clinical site. Specific detailed learning objectives are developed for each course by the faculty. On-site clinical instruction, supervision, evaluation, and placement is the responsibility of the college faculty. Clinical experiences are unpaid external learning experiences. Course may be repeated if topics and learning outcomes vary. Lecture Hrs = 0, Lab Hrs = 0, External Hrs = 9, Insurance Fee \$45	2 CR
ELPT 1325 National Electrical Code I <i>Prerequisite:</i> READ An introductory study of the National Electrical 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	3 CR	ELPT 2319 Programmable Logic Controllers I <i>Prerequisite:</i> READ Fundamental concepts of programmable logic controllers, principles of operation, numbering systems, logic gates, and Boolean expressions as applied to electrical controls. Lecture Hrs = 3, Lab Hrs = 0	3 CR	EMSP 1338 Introduction of Advanced Practice <i>Prerequisite:</i> BIOL 2404; 11th grade reading level, or permission of instructor. READ <i>Corequisite:</i> EMSP 1356, BIOL 2402 (for degree students only), or permission of instructor. An exploration of the foundations necessary for mastery of the advanced topics of clinical practice out of the hospital. Lecture Hrs = 2, Lab Hrs = 2, External Hrs = 0, Fee \$10, Texas Department of Health Skills Test \$20	3 CR
ELPT 1419 Fundamentals of Electricity I <i>Prerequisite:</i> READ An introduction to basic direct current (DC) theory including electron theory and direct current applications. Lecture Hrs = 3, Lab Hrs = 3, Fee \$4	4 CR	ELPT 2325 National Electrical Code II <i>Prerequisite:</i> READ In-depth coverage of the National Electrical Code (NEC) for those employed in fields requiring knowledge of the Code. Emphasis on wiring protection and methods, special conditions, and advanced calculations. Lecture Hrs = 3, Lab Hrs = 0	3 CR		
ELPT 1420 Fundamentals of Electricity II <i>Prerequisite:</i> ELPT 1419. READ An introduction to alternating current (AC) including Ohm's Law. Topics include AC voltage, frequency, mechanical and electrical degrees, waveforms, resistors, capacitors, and inductors. Lecture Hrs = 3, Lab Hrs = 3, Fee \$4	4 CR	ELPT 2355 Programmable Logic Controllers II <i>Prerequisite:</i> ELPT 2319 or ELPT 1455. READ Advanced concepts in programmable logic controllers and their applications and interfacing to industrial controls. Lecture Hrs = 3, Lab Hrs = 0, Fee \$4	3 CR		
ELPT 1441 Motor Control <i>Prerequisite:</i> ELPT 1419. READ Study of the operating principles of solid-state controls along with their practical applications. Topics include braking, jogging, plugging, and safety interlocks. Lecture Hrs = 3, Lab Hrs = 3, Fee \$6	4 CR	ELPT 2405 Motors and Transformers <i>Prerequisite:</i> ELPT 1420. READ A study of the principles of operation of single- and three-phase motors and transformers. Topics include transformer banking, power factor correction, and protective devices. Lecture Hrs = 3, Lab Hrs = 3, Fee \$4	4 CR		

A prerequisite of READ, MATH, or WRITE indicates that the course has a skills prerequisite based on scores on local placement tests or their equivalent.



- EMSP 1355 3 CR
Trauma Management
Prerequisite: 11th grade reading level or permission of instructor. *READ*
A detailed study of the knowledge and skills necessary to reach competence in the assessment and management of patients with traumatic injuries.
Lecture Hrs = 2, Lab Hrs = 2, External Hrs = 0, Fee \$10, Texas Department of Health Skills Test \$30
- EMSP 1356 3 CR
Patient Assessment and Airway Management
Prerequisite: EMSP 1501, 11th grade reading level or permission of instructor. *READ*
A detailed study of the knowledge and skills required to reach competence in performing patient assessment and airway management.
Lecture Hrs = 2, Lab Hrs = 2, External Hrs = 0, Fee \$10, Texas Department of Health Skills Test \$30
- EMSP 1501 5 CR
Emergency Medical Technician - Basic
Prerequisite: 10th grade reading level, current CPR certification, or permission of instructor. *READ*
Corequisite: EMSP 1160.
Introduction to the level of Emergency Medical Technician (EMT) - Basic. Includes all the skills necessary to provide emergency medical care at a basic life support level with an ambulance service or other specialized services.
Lecture Hrs = 4, Lab Hrs = 4, External Hrs = 0, Fee \$10, Texas Department of Health Skills Test = \$40
- EMSP 2143 1 CR
Assessment Based Management
Prerequisite: Permission of Instructor. *READ*
The capstone course of the EMSP program. Designed to provide for teaching and evaluating comprehensive, assessment-based patient care management.
Lecture Hrs = 1, Lab Hrs = 1, External Hrs = 0, Fee \$10, Texas Department of Health Skills Test = \$45
- EMSP 2243 2 CR
Assessment Based Management
Prerequisite: *READ*
The capstone course of the EMSP program. Designed to provide for teaching and evaluating comprehensive, assessment-based patient care management.
Lecture Hrs = 2, Lab Hrs = 3, External Hrs = 0, Fee \$10, Texas Department of Health Skills Test = \$60
- EMSP 2260 2 CR
Clinical
Prerequisite: EMSP 1260, EMSP 2444, or permission of instructor. *READ*
A method of instruction providing detailed education, training and work-based experience, and direct patient/client care, generally at a

clinical site. Specific detailed learning objectives are developed for each course by the faculty. On-site clinical instruction, supervision, evaluation, and placement is the responsibility of the college faculty. Clinical experiences are unpaid external learning experiences. Course may be repeated if topics and learning outcomes vary.
Lecture Hrs = 0, Lab Hrs = 0, External Hrs = 9, Insurance \$45

- EMSP 2330 3 CR
Special Populations
Prerequisite: EMSP 2444, 12th grade reading level, or permission of instructor.
A detailed study of the knowledge and skills necessary to reach competence in the assessment and management of ill or injured patients in nontraditional populations.
Lecture Hrs = 3, Lab Hrs = 2, External Hrs = 0, Fee \$10

- EMSP 2338 3 CR
EMS Operations
Prerequisite: EMSP 1338, 12th grade reading level, or permission of instructor.
A detailed study of the knowledge and skills necessary to reach competence to safely manage the scene of an emergency.
Lecture Hrs = 2, Lab Hrs = 2, External Hrs = 0, Fee \$10

- EMSP 2348 3 CR
Emergency Pharmacology
Prerequisite: 12th grade reading level or permission of instructor.
A comprehensive course covering all aspects of the utilization of medications in treating emergency situations. Course is designed to compliment Cardiology, Special Populations, and Medical Emergency courses.
Lecture Hrs = 3, Lab Hrs = 1, External Hrs = 0

- EMSP 2360 3 CR
Clinical
Prerequisite: EMSP 2260. *READ*
A method of instruction providing detailed education, training and work-based experience, and direct patient/client care, generally at a

clinical site. Specific detailed learning objectives are developed for each course by the faculty. On-site clinical instruction, supervision, evaluation, and placement is the responsibility of the college faculty. Clinical experiences are unpaid external learning experiences. Course may be repeated if topics and learning outcomes vary.
Lecture Hrs = 0, Lab Hrs = 0, External Hrs = 17, Insurance \$45

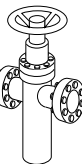
- EMSP 2434 4 CR
Medical Emergencies
Prerequisite: EMSP 1356, 12th grade reading level, or permission of instructor.
A detailed study of the knowledge and skills necessary to reach competence in the assessment and management of patients with medical emergencies.
Lecture Hrs = 4, Lab Hrs = 3, External Hrs = 0, Fee \$10

- EMSP 2444 4 CR
Cardiology
Prerequisite: EMSP 1356, 12th grade reading level, or permission of instructor.
A detailed study of the knowledge and skills necessary to reach competence in the assessment and management of patients with cardiac emergencies.
Lecture Hrs = 3, Lab Hrs = 3, External Hrs = 0, Fee \$10, Texas Department of Health Skills Test \$20

- ENGL 101 (formerly 0101) 0 CR
Writing Skills Review I
Prerequisite: Permission of instructor or division chair required. *READ, WRITE*
Writing Skills Review I is a one-hour, individualized overview of the elements of composition, sentence structure, usage and mechanics that are part of the Texas Academic Skills Program (TASP). The course provides a guided self-study review for students who have adequate basic skills but who have not passed the writing skills section of the TASP test. The course is not transferable.
Lecture Hrs = 0, Lab Hrs = 1



ENGL 102 (formerly 0102) 0 CR Writing Skills Review II Prerequisite: Permission of instructor or division chair required. <i>READ, WRITE</i> Writing Skills Review II is a one-hour individualized review of the ability to produce an adequate college-level writing sample. The course provides intensive practice in producing and evaluating writing samples for students who have adequate basic skills but who have not passed the writing skills section of the Texas Academic Skill Program (TASP) test. The course is not transferable. Lecture Hrs = 0, Lab Hrs = 1	ENGL 1301 Σ 3 CR English Composition I Prerequisite: Writing Placement Test Score between 6-7 or completion of ENGL 0302 with a grade of "3". <i>READ</i> A concentrated study of the fundamentals of English usage; training in accurate reading and writing of prose, chiefly expository; study of the principles of library research and the techniques of writing research papers. Research required. Lecture Hrs = 3, Lab Hrs = 0, Fee \$6	ENGL 2189 M 1 CR Medical Writing Prerequisite: ENGL 2311. <i>READ</i> A workshop course designed to give experience in writing for medical, pharmaceutical and related industries. Through case studies, students will create both in-house and consumer-aimed documents about medical topics. Lecture Hrs = 3, Lab Hrs = 0
ENGL 301 (formerly 0301) 0 CR Fundamentals of Writing I Prerequisite: Writing Placement Test Score below 5. <i>READ</i> Practice in development of effective sentences and paragraphs with emphasis on structure, clarity, unity, and development of topic. Review of fundamentals of grammar, punctuation, and spelling in a laboratory setting. Credit for this course is not transferable. Lecture Hrs = 3, Lab Hrs = 0, Fee \$6	ENGL 1302 $\Omega \Sigma$ 3 CR English Composition II Prerequisite: Writing Placement Test score equal to 8 or a grade of "C" or better in ENGL 1301. <i>READ</i> A study of the principles of effective writing through analysis of selected novels, short stories, poems, and plays. Continued study of methods of library research and of writing research papers. Research required. Lecture Hrs = 3, Lab Hrs = 0	ENGL 2189 N 1 CR Newsletter Writing & Production Prerequisite: ENGL 2311, COMM 2305. <i>READ</i> A workshop course designed to give students experience in writing, designing and producing corporate newsletters, bulletins and information pages. Students will learn to find topics of interest to readers, research and write articles, design publication formats, layout and produce newsletters for mass consumption. Lecture Hrs = 3, Lab Hrs = 0
ENGL 302 (formerly 0302) 0 CR Fundamentals of Writing II Prerequisite: Writing Placement Test Score equal to 5 or completion of ENGL 301 with a grade of "2". <i>READ</i> Practice in development of full-length themes with emphasis on structure, organization, unity, and development of thesis. Credit for this course is not transferable. Lecture Hrs = 3, Lab Hrs = 0, Fee \$6	ENGL 2189 D 1 CR Manuals & Documentation Prerequisite: ENGL 2311. <i>READ</i> A course designed to teach the principles involved in the creation of instruction documents. The course has both hardcopy and online components. Students will produce both a paper manual and an online tutorial or help project. Lecture Hrs = 3, Lab Hrs = 0	ENGL 2189 S 1 CR Science Writing Prerequisite: ENGL 2311. <i>READ</i> A workshop course designed to give experience in writing for science-based industries. Students will do several case studies requiring the creation of science-oriented documents for both in-house and consumer audiences. Lecture Hrs = 3, Lab Hrs = 0
ENGL 311 (formerly 0311) 0 CR Fundamentals of Reading and Writing for Non-native Speakers I Prerequisite: <i>READ</i> A course designed to meet the special needs of students who speak English as a second language. ENGL 311 uses intensive practice in basic vocabulary development, reading, and writing. Credit for this course is not transferable. Lecture Hrs = 3, Lab Hrs = 0, Fee \$6	ENGL 2189 F 1 CR Feature Writing Prerequisite: ENGL 2311. <i>READ</i> A workshop course designed to give students experience in creating articles about business and industry, for publication in trade journals, house organs or mass media outlets. Students will find topics, do interviews and write articles slanted to specific audiences and publications. Lecture Hrs = 3, Lab Hrs = 0	ENGL 2307 3 CR Creative Writing Prerequisite: ENGL 1302. <i>READ</i> A critical seminar for writers of poetry: narrative or lyric; of fiction: sketches, anecdotes, short stories, novels, and drama; of factual writing: articles, biography, or family history. Creativity, criticism, and revision are emphasized. Analyses of contemporary models and techniques are examined with emphasis on literary qualities. Lecture Hrs = 3, Lab Hrs = 0
ENGL 312 (formerly 0312) 0 CR Fundamentals of Reading and Writing for Non-native Speakers II Prerequisite: ENGL 311 or consent of instructor. <i>READ</i> A continuation of ENGL 311 with an emphasis on the writing process. Credit for this course is not transferable. Lecture Hrs = 3, Lab Hrs = 0, Fee \$6	ENGL 2189 I 1 CR International Technical Communication Prerequisite: ENGL 2311. <i>READ</i> A course designed to train students for written communication for an international audience. Students will learn the processes of localization, translation, and internationalization through writing new, or revising existing, documents for use by audiences beyond the U.S. Lecture Hrs = 3, Lab Hrs = 0	ENGL 2308 3 CR Creative Writing Prerequisite: ENGL 2307 or consent of instructor. <i>READ</i> Same as ENGL 2307 but more advanced. Lecture Hrs = 3, Lab Hrs = 0
	ENGL 2189 L 1 CR Legal Writing Prerequisite: ENGL 2311. <i>READ</i> A course designed to instill basic skills in writing for legal purposes. Students will learn to create legal memoranda, briefs, citation forms and contracts and will experience communicating legal information to lay audiences. Lecture Hrs = 3, Lab Hrs = 0	ENGL 2311 Ω 3 CR Technical Writing Prerequisite: Passing Writing Placement score. <i>READ</i> A course designed to develop professional document writing in the technical and business world. A speech component is included. Requirements include an original report of considerable scope and length. Research required. Lecture Hrs = 3, Lab Hrs = 0, Fee \$6



Ω Indicates courses taught with optional honors contracts.

Σ Indicates honors courses.

See page 20 for additional information on the Honors Program.

A prerequisite of *READ, MATH, or WRITE* indicates that the course has a skills prerequisite based on scores on local placement tests or their equivalent.

ENGL 2315	3 CR	ENGL 2333 Ω	3 CR	ENGR 2301	3 CR
Advanced Technical Writing		World Literature: Fifteenth Century to Present		Engineering Statics	
Prerequisite: ENGL 2311. <i>READ</i>		Prerequisite: ENGL 1302. <i>READ</i>		Prerequisite: MATH 2413. <i>READ</i>	
A course designed to train students to deal with special communication issues that occur in the corporate environment. Students do a number of case study projects designed to explore technical, communication and political issues that occur in the communication process. Serves as the capstone course for professional writing majors.		A study of the masterpieces of western world literature from Shakespeare through the second World War.		Pre or corequisite: PHYS 2425.	
Lecture Hrs = 3, Lab Hrs = 0		Lecture Hrs = 3, Lab Hrs = 0		Elementary principles of mechanics applied to particles at rest and in motion. Kinematics of particles, resultants of forces, Newton's Laws for a particle work and energy, impulse and momentum principles. Elementary rigid body statics.	
		ENGL 2341	3 CR	Lecture Hrs = 3, Lab Hrs = 0	
		Forms of Literature			
		Prerequisite: ENGL 1302. <i>READ</i>		ENGR 2302	3 CR
		The study of one or more literary genres including, but not limited to, poetry, fiction, drama, and film.		Engineering Dynamics	
		Lecture Hrs = 3, Lab Hrs = 0		Prerequisite: ENGR 2301 and PHYS 2425.	
ENGL 2322 Ω	3 CR	ENGL 2389	3 CR	<i>READ</i>	
English Literature: Beowulf to Romantic		Professional Writing Internship		Extension of the principles of mechanics to rigid bodies at rest and in motion. Kinematics of rigid body motion, extension of Newton's Law to translation, rotation, plane motion of rigid bodies. Equilibrium and motion of bodies affected by friction. Work-energy and impulse-momentum for rigid bodies.	
Prerequisite: ENGL 1302. <i>READ</i>		Prerequisite: Twelve hours of professional writing coursework. <i>Consent of instructor required. READ</i>		Lecture Hrs = 3, Lab Hrs = 0.	
A direct study of significant masterpieces of English literature from the earliest times to the Romantic Period with particular attention to the main currents of thought and the major writers of Britain.		An experience external to the college for an advanced student in a specialized field involving a written agreement between the educational institution and a business or industry. Mentored and supervised by a workplace employee, the student achieves objectives that are developed and documented by the college and that are directly related to the student's specific occupational goals. This may be a paid or unpaid experience.			
Lecture Hrs = 3, Lab Hrs = 0		Lecture Hrs = 1, Lab Hrs = 0		ENVR 1401 Σ Ω	4 CR
		ENGL 2323 Ω	3 CR	Environmental Science I	
English Literature: Romantic to Present		Prerequisite: ENGL 1302. <i>READ</i>		Prerequisite: <i>READ</i>	
Prerequisite: ENGL 1302. <i>READ</i>		A direct study of significant masterpieces of English literature from the Romantic Period to the present with particular attention to the main currents of thought and the major writers of Britain.		A general study of ecological concepts; an introduction to chemical and biological principles that relate to ecology; an introduction to resources including animal, plant, energy, water, soil and air. A study of pollution problems and solutions. Laboratory exercises include soil testing, air and water quality measurements, field sampling techniques, and related nature studies. Optional field trips.	
Lecture Hrs = 3, Lab Hrs = 0		Lecture Hrs = 3, Lab Hrs = 0		Lecture Hrs = 3, Lab Hrs = 3, Fee \$20	
		ENGL 2327 Σ Ω	3 CR	ESOL 300	0 CR
American Literature to 1860		Prerequisite: ENGL 1302. <i>READ</i>		ESOL Developmental Written Communication I (formerly 0300)	
Prerequisite: ENGL 1302. <i>READ</i>		A general survey of the major works in American literature from its origins to 1860.		Prerequisite: Placement score of 0-2.	
Lecture Hrs = 3, Lab Hrs = 0		Lecture Hrs = 3, Lab Hrs = 0		A beginning course in written English for students who are native speakers of languages other than English. Students receive extensive practice and assistance in basic vocabulary, spelling, grammar, comprehension, and writing simple sentences. Although the course may include some speaking, the emphasis is on developing writing skills.	
		ENGL 2328 Σ Ω	3 CR	<i>Credit for this course is not transferable. TASP regulations for developmental requirements apply.</i>	
American Literature: 1860 to Present		Prerequisite: ENGL 1302. <i>READ</i>		Lecture Hrs = 3, Lab Hrs = 0, Fee \$6	
Prerequisite: ENGL 1302. <i>READ</i>		A general survey of the major works in American literature from 1860 to the present.			
Lecture Hrs = 3, Lab Hrs = 0		Lecture Hrs = 3, Lab Hrs = 0		ESOL 301 (formerly 0301)	0 CR
		ENGL 2331 Ω	3 CR	ESOL Developmental Written Communication II	
Cross-Cultural Literature		Prerequisite: ENGL 1302. <i>READ</i>		Prerequisite: Placement score of 3-4. <i>READ</i>	
Prerequisite: ENGL 1302. <i>READ</i>		An introduction to literature across cultures. This course focuses on story-telling as a way to learn about peoples from around the world. Authors selected are from North America, Asia, Africa, Latin America, and Europe.		An intermediate course in written English for students who are native speakers of languages other than English. Students receive extensive practice and assistance in further development of vocabulary, spelling, grammar, comprehension, simple paragraphs, and/or short essays.	
Lecture Hrs = 3, Lab Hrs = 0		Lecture Hrs = 3, Lab Hrs = 0			
		ENGL 2332 Ω	3 CR		
World Literature: Greeks to Renaissance		Prerequisite: ENGL 1302. <i>READ</i>			
Prerequisite: ENGL 1302. <i>READ</i>		A study of the masterpieces of western world literature, from the ancient Greek classics through the early Renaissance.			
Lecture Hrs = 3, Lab Hrs = 0		Lecture Hrs = 3, Lab Hrs = 0			

A prerequisite of READ, MATH, or WRITE indicates that the course has a skills prerequisite based on scores on local placement tests or their equivalent.

Although the course may include some speaking, the emphasis is on developing writing skills.

Credit for this course is not transferable. TASP regulations for developmental requirements apply.

Lecture Hrs = 3, Lab Hrs = 0, Fee \$6

ESOL 302 (formerly 0302) 0 CR
ESOL Developmental Written Communication III

Prerequisite: Placement score of 5. **READ**

An advanced essay writing course for students who are native speakers of languages other than English. Students receive extensive practice and assistance in advanced vocabulary, spelling, grammar, comprehension, and writing expository essays. Although the course may include some speaking, the emphasis is on developing writing skills.

Credit for this course is not transferable. TASP regulations for developmental requirements apply.

Lecture Hrs = 3, Lab Hrs = 0, Fee \$6

ESOL 303 (formerly 0303) 0 CR
ESOL Developmental Oral Communication I

Prerequisite: **READ.**

A beginning course in spoken English for students who are native speakers of languages other than English. Students receive extensive practice and assistance in basic vocabulary, pronunciation skills, and reading comprehension. Although the course may include some writing, the emphasis is on developing speaking and reading skills.

Credit for this course is not transferable. TASP regulations for developmental requirements apply.

Lecture Hrs = 3, Lab Hrs = 0, Fee \$6

ESOL 304 (formerly 0304) 0 CR
ESOL Developmental Oral Communication II

Prerequisite: **READ.**

An intermediate course in spoken English for students who are native speakers of languages other than English. Students receive extensive practice and assistance in more complex vocabulary, pronunciation skills, and reading comprehension. Students may make short oral presentations. Although the course may include some writing, the emphasis is on developing speaking and reading skills.

Credit for this course is not transferable. TASP regulations for developmental requirements apply.

Lecture Hrs = 3, Lab Hrs = 0, Fee \$6

ESOL 305 (formerly 0305) 0 CR
ESOL Developmental Oral Communication III

Prerequisite: **READ.**

An advanced course in spoken English for students who are native speakers of languages other than English. Students receive extensive practice and assistance developing vocabulary, pronunciation skills, and reading comprehension at a more advanced level. Students may make longer oral presentations and respond to questions in an interview format. Although the course may include some writing, the emphasis is on developing speaking and reading skills.

Credit for this course is not transferable. TASP regulations for developmental requirements apply.

Lecture Hrs = 3, Lab Hrs = 0, Fee \$6

FREN 1411 4 CR
Beginning French

Prerequisite: **READ, WRITE**

For students with little or no previous knowledge of French. Vocabulary and grammar are taught through a variety of cognitive teaching methods including the use of patterned response drills, memorization of mini-dialogues,

and the analysis of contextually related readings. Proper pronunciation is stressed throughout the course.

Lecture Hrs = 3, Lab Hrs = 3, Fee \$4

FREN 1412 4 CR
Intermediate French

Prerequisite: **FREN 1411** or one admission credit in French. **READ**

Continuation of FREN 1411. This course may be offered only in the spring.

Lecture Hrs = 3, Lab Hrs = 3, Fee \$4

FREN 2311 3 CR
French: Reading, Conversation, and Composition

Prerequisite: **FREN 1412** or two admission credits in French. **READ**

Complete review of grammar. Reading of modern prose. Written and oral composition.

Lecture Hrs = 3, Lab Hrs = 0

FREN 2312 3 CR
French: Reading, Conversation, and Composition

Prerequisite: **FREN 2311** or three admission credits in French. **READ**

Continuation of FREN 2311.

Lecture Hrs = 3, Lab Hrs = 0

GEOG 1300 3 CR
Introduction to College Geography

Prerequisite: **READ**

The world and its climate regions, its resources, and man's use of the earth and its resources.

Lecture Hrs = 3, Lab Hrs = 0

GEOG 1303 3 CR
World Regional Geography

Prerequisite: **READ, WRITE**

A study of major developed and developing regions with emphasis on the awareness of prevailing world conditions and developments, including emerging conditions and trends, and the awareness of diversity of ideas and practices to be found in those regions. Course content may include one or more regions.

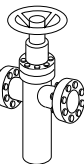
Lecture Hrs = 3, Lab Hrs = 0

GEOL 1301 3 CR
Earth Science

Prerequisite: *It is strongly recommended that students should have completed their requirements in science before registering for this elective.* **READ**

Survey of physical sciences with emphasis on the earth's ecological and geological processes.

Lecture Hrs = 3, Lab Hrs = 0



Ω Indicates courses taught with optional honors contracts.

Σ Indicates honors courses.

See page 20 for additional information on the Honors Program.

GEOL 1403 Physical Geology Prerequisite: READ Earth forms, structures, materials and processes which have formed them. An introduction to minerals, rocks and topographic maps. Optional field trips. Lecture Hrs = 3, Lab Hrs = 3, Fee \$20	4 CR	GERM 2312 German: Reading, Conversation, and Composition Prerequisite: GERM 2311 or three admission credits in German. READ, WRITE Continuation of GERM 2311. Lecture Hrs = 3, Lab Hrs = 0	3 CR	GRPH 1457 Digital Imaging II Prerequisite: GRPH 1425. READ An in-depth investigation of digital imaging on the computer using image editing and/or image creation software. Manipulation, creation, and editing of digital images. Topics include: image capture, high-end workstations, image bit-depth, and interaction with service bureaus and printing industries. Students will participate in placing this data on the Web. Lecture Hrs = 2, Lab Hrs = 4, Fee \$10	4 CR
GEOL 1404 Historical Geology Prerequisite: READ A history of the earth and the development of its life forms and land forms throughout geologic time. Introduction to fossils and geologic maps. Optional field trips. Lecture Hrs = 3, Lab Hrs = 3, Fee \$20	4 CR	GOVT 2301 Ω American Government I (Federal and State) Prerequisite: READ, WRITE Theory and forms of government, political socialization, United States and Texas constitutions, federalism, civil rights and civil liberties, and political parties and elections. This course will fulfill Texas teacher certification requirements in government for individuals with out-of-state degrees. Lecture Hrs = 3, Lab Hrs = 0	3 CR	GRPH 1459 Object Oriented Computer Graphics Pre or corequisite: ITSC 1309, or consent of instructor. READ Mastery of the tools and transformation options of an industry standard draw program to create complex illustrations and follow them through to the color output stage. Mastery in the use of basic elements of good layout and design principles and use of the capabilities specific to vector (object oriented) drawing software to manipulate both text and graphics with emphasis on the use of bezier curves. Acquisition of images via scanning and the creative use of clip art is included. Lecture Hrs = 3, Lab Hrs = 3, Fee \$10	4 CR
GEOL 1405 Environmental Geology Prerequisite: READ Environmental geology is an introductory survey to some of the various processes that help to shape our earth, the resources that come from it, and the problems that arise from their use. Lab studies will investigate such problems as flooding, faulting, subsidence, landfills, and other pertinent land use issues. Optional field trips. Lecture Hrs = 3, Lab Hrs = 3, Fee \$20	4 CR	GOVT 2302 Ω American Government II (Federal and State) Prerequisite: READ, WRITE United States and Texas executive, legislative, and judicial branches, governmental finance, foreign policy, and county and municipal government. Lecture Hrs = 3, Lab Hrs = 0	3 CR	GRPH 1496 Special Topics in Desktop Publishing Printing Equipment Operator Prerequisite: GRPH 1459. READ Pre or corequisite: GRPH 1454 Topics address recently identified current events, skills, knowledge, and/or attitudes and behavior pertinent to the technology or occupation and relevant to the professional development of the student. Lecture Hrs = 3, Lab Hrs = 3, Fee \$10	4 CR
GERM 1411 Beginning German Prerequisite: READ, WRITE For students with little or no previous knowledge of German. Vocabulary and grammar are taught through a variety of cognitive teaching methods including the use of patterned response drills, memorization of mini-dialogues, and the analysis of contextually related readings. Proper pronunciation is stressed throughout the course. Lecture Hrs = 3, Lab Hrs = 3, Fee \$4	4 CR	GRPH 1422 Electronic Publishing I Prerequisite: READ An introduction to computer layout and design using major components of electronic publishing including text, graphics, and page layout and design using a computer. Introduction to the basic concepts and terminology associated with typography and page layout. Lecture Hrs = 2, Lab Hrs = 4, Fee \$10	4 CR	GRPH 2441 Electronic Publishing III Prerequisite: GRPH 1422. READ Advanced concepts in electronic publishing using an industry standard page layout software package. In-depth color separations, trapping and advanced techniques for controlling type and graphics. Overview of color schemes, software additions (plug-ins, filters, utilities), and preparation of files for printing. Lecture Hrs = 2, Lab Hrs = 4, Fee \$10	4 CR
GERM 1412 Intermediate German Prerequisite: GERM 1411 or one admission credit in German. READ, WRITE Continuation of GERM 1411. This course may be offered only in the spring. Lecture Hrs = 3, Lab Hrs = 3, Fee \$4	4 CR	GRPH 1425 Digital Imaging I Prerequisite: ITSC 1309 or consent of instructor. READ An introduction to digital imaging on the computer using image editing and/or image creation software. Topics include: scanning, resolution, file formats, output devices, color systems, and image-acquisitions. The student will create, manipulate, and edit digital images. Lecture Hrs = 2, Lab Hrs = 4, Fee \$10	4 CR	HART 1291 Special Topics in Heating, Air Conditioning, and Refrigeration: Preparation for State Contractor's Exam Prerequisite: HART 2434, READ 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. This course prepares students to sit for the State of Texas Air Conditioning Contractor's License. Lecture Hrs = 1, Lab Hrs = 3, Fee \$6	2 CR
GERM 2311 German: Reading, Conversation, and Composition Prerequisite: GERM 1412 or two admission credits in German. READ, WRITE Complete review of grammar. Reading of modern prose. Written and oral composition. Lecture Hrs = 3, Lab Hrs = 0	3 CR	GRPH 1454 Electronic Publishing II Pre or corequisite: ITSC 1309 or consent of instructor. READ Emphasis on design principles for the creation of advertising and publishing materials such as letterheads, business cards, ads, fliers, brochures, and manuals. Mastery of design principles regarding typography, effective use of color, special graphic effects, informational graphics and output considerations. Emphasis on techniques for planning and documenting projects and on efficient project design techniques. Lecture Hrs = 3, Lab Hrs = 3, Fee \$10	4 CR		

A prerequisite of READ, MATH, or WRITE indicates that the course has a skills prerequisite based on scores on local placement tests or their equivalent.

HART 1403 4 CR
 A/C Control Principles
Prerequisite: READ
 A basic study of electrical, pressure, and temperature controls including motor starting devices, operating relays, and troubleshooting safety controls and devices. Emphasis on use of wiring diagrams to analyze high and low voltage circuits. A review of Ohm's law as applied to A/C controls and circuits.
 Lecture Hrs = 3, Lab Hrs = 2, Fee \$6

HART 1407 4 CR
 Refrigeration Principles
Prerequisite: READ
 An introduction to the refrigeration cycle, basic thermodynamics, heat transfer, temperature/pressure relationship, safety, refrigeration containment, and refrigeration components.
 Lecture Hrs = 3, Lab Hrs = 2, Fee \$6

HART 1441 4 CR
 Residential Air Conditioning
Pre or corequisite: HART 1403, HART 1407. READ
 A study of components, applications, and installation of mechanical air conditioning systems including operating conditions, troubleshooting, repair, and charging of air conditioning systems.
 Lecture Hrs = 3, Lab Hrs = 2, Fee \$6

HART 1445 4 CR
 Gas and Electric Heating
Pre or corequisite: HART 1403. READ
 A study of the procedures and principles used in servicing heating systems including gas fired and electric furnaces.
 Lecture Hrs = 3, Lab Hrs = 2, Fee \$6

HART 1449 4 CR
 Heat Pumps
Prerequisite: HART 1403, HART 1407. READ

A study of heat pumps, heat pump control circuits, defrost controls, auxiliary heat, air flow, and other topics related to heat pump systems.
 Lecture Hrs = 3, Lab Hrs = 2, Fee \$6

HART 2434 4 CR
 Advanced A/C Controls
Prerequisite: HART 1403, READ
 Methods for troubleshooting electrical control devices and control circuits including correctly wiring electrical components.
 Lecture Hrs = 3, Lab Hrs = 2, Fee \$6

HART 2436 4 CR
 Troubleshooting
Pre or corequisite: HART 2434. READ
 An advanced course in application of troubleshooting principles and use of test instruments to diagnose air conditioning and refrigeration components and system problems including conducting performance tests.
 Lecture Hrs = 3, Lab Hrs = 2, Fee \$6

HART 2441 4 CR
 Commercial Air Conditioning
Prerequisite: HART 1407. READ
 A study of components, applications, and installation of air conditioning systems with capacities of 25 tons or less.
 Lecture Hrs = 3, Lab Hrs = 2, Fee \$6

HIST 1301 $\sum \Omega$ 3 CR
 History of the United States to 1877
Prerequisite: READ, WRITE
 The political, economic, social, and intellectual history of the United States from the discovery of America to 1877. A research component is required for honors credit.
 Lecture Hrs = 3, Lab Hrs = 0

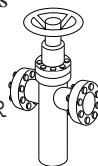
HIST 1302 $\sum \Omega$ 3 CR
 History of the United States Since 1877
Prerequisite: READ, WRITE
 The political, economic, social, and intellectual history of the United States from 1877 to the present day. A research component is required for honors credit.
 Lecture Hrs = 3, Lab Hrs = 0

HIST 2301 Ω 3 CR
 History of Texas
Prerequisite: READ, WRITE
 Texas history from colonization to the present day with attention given to political, social, economic, and intellectual history. Designed for any students interested in local history, the course is particularly recommended for prospective teachers in the public schools of Texas. (Based on House Bill 935 this can be substituted for an American history course.) A research component is required for honors credit.
 Lecture Hrs = 3, Lab Hrs = 0

HIST 2321 Ω 3 CR
 History of World Civilizations to 1500
Prerequisite: READ, WRITE
 A comparative historical study of Europe, Asia, Africa, the Americas, and Australia to 1500. A research component is required for honors credit.
 Lecture Hrs = 3, Lab Hrs = 0

HIST 2322 Ω 3 CR
 History of World Civilizations from 1500 to Present
Prerequisite: READ, WRITE
 A comparative historical study of Europe, Asia, Africa, the Americas, and Australia from 1500 to the present. A research component is required for honors credit.
 Lecture Hrs = 3, Lab Hrs = 0

HITT 1301 3 CR
 Health Data Content and Structure
Prerequisite: READ
 Introduction to systems and processes for collecting, maintaining, and disseminating primary and secondary health related information. Instruction in delivery and organizational structure to include content of health record, documentation requirements, registries, indices, licensing, regulatory agencies, forms, and screens.
 Lecture Hrs = 3, Lab Hrs = 0



Ω Indicates courses taught with optional honors contracts.
 \sum Indicates honors courses.
 See page 20 for additional information on the Honors Program.

HITT 1305 Medical Terminology <i>Prerequisite:</i> 10th grade reading level or permission of instructor. Study of word origin and structure through the introduction of prefixes, suffixes, root words, plurals, abbreviations and symbols, surgical procedures, medical specialties, and diagnostic procedures. Lecture Hrs = 3, Lab Hrs = 0	3 CR	supervision is provided by the faculty or the work supervisor. An internship may be a paid or unpaid learning experience. Lecture Hrs = 0, Lab Hrs = 0, External Lab = 6, Liability Insurance Fee \$18	HITT 2339 Health Information Organization and Supervision <i>Prerequisite:</i> READ. Principles of organization and supervision of human, fiscal, and capital resources. Lecture Hrs = 3, Lab Hrs = 0	3 CR
HITT 1341 Coding and Classification Systems <i>Prerequisite:</i> HITT 1305, BIOL 2401 or BIOL 2404, or approval of instructor. READ Application of basic coding rules, principles, guidelines, and conventions. Lecture Hrs = 2, Lab Hrs = 2, Fee \$10	3 CR	HITT 2189 Internship – Health Information Technology/Technician <i>Prerequisite:</i> HITT 2335. READ. A basic intermediate, or advanced type of non-health professions work-based instruction that helps students synthesize new knowledge, apply previous knowledge, or gain experience managing the work flow. Practical experience is simultaneously related to theory. Direct supervision is provided by the faculty or the work supervisor. An internship may be a paid or unpaid learning experience. Lecture Hrs = 0, Lab Hrs = 0, External Lab = 6, Insurance Fee \$18	HITT 2343 Quality Assessment and Performance Improvement <i>Prerequisite:</i> READ. <i>Corequisite:</i> HITT 2289. Study of the many facets of quality standards and methodologies in the health information management environment. Topics include licensing, accreditation, compilation and presentation of data in statistical formats, quality improvement functions, quality tools, utilization management, risk management, and medical staff data quality issues. Lecture Hrs = 3, Lab Hrs = 0	3 CR
HITT 1345 Health Care Delivery Systems <i>Prerequisite:</i> READ. Introduction to organization, financing, and delivery of health care services, accreditation, licensure, and regulatory agencies. Lecture Hrs = 3, Lab Hrs = 0	3 CR	HITT 2288 Internship – Health Information Technology/Technician <i>Prerequisite:</i> HITT 2188. <i>Pre or corequisite:</i> HITT 1355, HITT 1353, or approval of instructor. READ. A basic intermediate, or advanced type of non-health professions work-based instruction that helps students synthesize new knowledge, apply previous knowledge, or gain experience managing the work flow. Practical experience is simultaneously related to theory. Direct supervision is provided by the faculty or the work supervisor. An internship may be a paid or unpaid learning experience. Lecture Hrs = 0, Lab Hrs = 0, External Lab = 8, Insurance Fee \$18	HRPO 1311 Human Relations <i>Prerequisite:</i> READ Practical application of the principles and concepts of the behavioral sciences to interpersonal relationships in the business and industrial environment. Lecture Hrs = 3, Lab Hrs = 0	3 CR
HITT 1349 Pharmacology <i>Prerequisite:</i> 12th grade reading level or permission of instructor. Overview of the basic concepts of the pharmacological treatment of various diseases affecting major body systems. Lecture Hrs = 3, Lab Hrs = 0	3 CR	HITT 2289 Internship – Health Information Technology/Technician <i>Prerequisite:</i> HITT 2288, or approval of instructor. READ. <i>Corequisite:</i> HITT 2343. A basic intermediate, or advanced type of non-health professions work-based instruction that helps students synthesize new knowledge, apply previous knowledge, or gain experience managing the work flow. Practical experience is simultaneously related to theory. Direct supervision is provided by the faculty or the work supervisor. An internship may be a paid or unpaid learning experience. Lecture Hrs = 0, Lab Hrs = 0, External Lab = 8, Insurance Fee \$18	HRPO 1393 Special Topics in Organizational Behavior Studies <i>Prerequisite:</i> READ 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. Lecture Hrs = 3, Lab Hrs = 0	3 CR
HITT 1353 Legal and Ethical Aspects of Health Information <i>Prerequisite:</i> READ. Concepts of confidentiality, ethics, health care legislation, and regulations relating to the maintenance and use of health information. Lecture Hrs = 3, Lab Hrs = 0	3 CR	HITT 2335 Coding and Reimbursement Methodologies <i>Prerequisite:</i> HITT 1341. READ. Development of advanced coding techniques with emphasis on case studies, health records, and federal regulations regarding perspective payment systems and methods of reimbursement. Lecture Hrs = 2, Lab Hrs = 2, Fee \$10	HUMA 1301 Σ Ω Introduction to the Humanities I <i>Prerequisite:</i> READ, WRITE A multicultural, interdisciplinary introduction to the study of humankind's cultural legacy in at least four of the disciplines of the humanities, which are approached individually, in synthesis with one or more of the others, or thematically: the visual arts, motion pictures, architecture, music, dance, philosophy, and literature as well as the social sciences, history, mathematics, medicine, and the physical sciences as they have contributed to that cultural legacy. Lecture Hrs = 3, Lab Hrs = 0	3 CR
HITT 1355 Health Care Statistics <i>Prerequisite:</i> READ, MATH. General principles of health care statistics with emphasis in hospital statistics. Skill development in computation and calculation of health data with overview of guidelines for Texas Department of Health Vital Statistics and studies. Lecture Hrs = 3, Lab Hrs = 0	3 CR	HITT 2335 Coding and Reimbursement Methodologies <i>Prerequisite:</i> HITT 1341. READ. Development of advanced coding techniques with emphasis on case studies, health records, and federal regulations regarding perspective payment systems and methods of reimbursement. Lecture Hrs = 2, Lab Hrs = 2, Fee \$10	HUMA 1302 Σ Introduction to the Humanities II <i>Prerequisite:</i> READ, WRITE Honors only. A historical overview of humankind's cultural legacy in at least four of the disciplines of the humanities, which are approached individually, in synthesis with one or more of the others, or thematically: the visual arts, motion pictures, architecture, music, dance, philosophy, and literature as well as	3 CR
HITT 2188 Internship – Health Information Technology/Technician <i>Prerequisite:</i> HITT 2335. READ. A basic intermediate, or advanced type of non-health professions work-based instruction that helps students synthesize new knowledge, apply previous knowledge, or gain experience managing the work flow. Practical experience is simultaneously related to theory. Direct	1 CR			

the social sciences, history, mathematics, medicine, and the physical sciences as they have contributed to that cultural legacy.
Lecture Hrs = 3, Lab Hrs = 0

HYDR 1445 4 CR
Hydraulics and Pneumatics

Prerequisite: READ

Fundamentals of hydraulics and types of hydraulic pumps, cylinders, valves, motors, and related systems including operations, maintenance, and system analysis.

Lecture Hrs = 3, Lab Hrs = 3, Fee \$20

HYDR 2430 4 CR
Fluid Power System Design

Prerequisite: HYDR 1445. READ

Advanced operation of servo and proportional valves and their controls, open loop and closed loop systems. Topics include filtration requirements for all hydraulic systems; operation of hydraulic circuits; design circuits, including hydraulics, pneumatics, electrical/electronic controls, and mechanical interface.

Lecture Hrs = 3, Lab Hrs = 3, Fee \$20

IMED 1401 4 CR
Introduction to Multimedia

Prerequisite: READ

A survey of the theories, elements, and hardware/software components of multimedia. Topics include digital image editing, digital sound and video editing, animation, web page development, and interactive presentations. Emphasis on conceptualizing and producing effective multimedia presentations.

Lecture Hrs = 3, Lab Hrs = 3, Fee \$10

INEW 2334 3 CR
Advanced Web Page Programming

Prerequisite: ITSE 2302. READ

Advanced applications for Web authoring. Topics include Perl Scripts, Common Gateway Interface (CGI), Database Interaction, Active Server Pages, Java Applets, Javascripts, tables, HTML, and/or interactive elements.

Lecture Hrs = 2, Lab Hrs = 2, Fee \$10

INTC 1309 3 CR
Critique of Instrument and Control

Prerequisite: READ

An overview of instruments and control stressing preparation for industry employment testing and the National Institute of Engineering Technologist Certification (Level 2).

Lecture Hrs = 3, Lab Hrs = 0

INTC 1312 3 CR
Introduction to Instrumentation Technology

Prerequisite: READ

An overview of industries employing instrumentation technicians. A study of hazardous industrial locations and safe work practices.

Introduction to ISO-9000 Process Safety Management concepts and fire prevention and fire fighting techniques.

Lecture Hrs = 3, Lab Hrs = 0

INTC 1343 3 CR
Application of Industrial Automatic Control

Prerequisite: INTC 1453. READ

A study of automatic process control including measuring devices, analog and digital instrumentation, signal transmitter, recorders, alarms, controllers, control valves, and process and instrument drawings. Includes connection and troubleshooting of loops. The study begins with ISA, electrical, and process symbology. Then, the course addresses the engineering package which may include such documents as P&IDs, loop diagrams, sketches, spec sheets, bills of materials, and simplified flow diagrams. The course includes basic sketching techniques.

Lecture Hrs = 3, Lab Hrs = 0, Fee \$6

INTC 1401 4 CR
Principles of Industrial Measurements

Prerequisite: READ

A study of the principles and devices for the measurement of control variables such as temperature, pressure, flow, level, and basic control functions.

Lecture Hrs = 3, Lab Hrs = 3, Fee \$6

INTC 1441 4 CR
Principles of Automatic Control

Prerequisite: INTC 1453. READ

A study of the theory of control room operations, automatic control systems and design, closed loop systems, recorders, controllers, positioners, feedback, on-off control, proportional, reset and rate responses, ratio and cascade controllers. This course begins with a study of final control elements used in on/off and continuous control applications. Then, the examination of simple automatic control configurations begins. Content includes local and remote control applications, on/off control applications, continuous control applications, controller tuning, and control center instrumentation. The lab consists of hands-on implementation of the topics covered in lecture and an introduction to basic troubleshooting approaches. The course design leads the student to learn the use of resources to develop an attitude of working a problem to completion.

Lecture Hrs = 3, Lab Hrs = 3, Fee \$6

INTC 1450 4 CR
Digital Measurement and Controls

Prerequisite: INTC 1441. READ

A study of the movement of digital data through common systems including LED displays, teletypes, and cathode ray displays employing parallel and serial transfers using wire lines, fiber optics systems, and radio methods of transfer.

Lecture Hrs = 3, Lab Hrs = 3

INTC 1452 4 CR
Analog Electronic Instrumentation I

Prerequisite: READ

A review of basic electronic concepts and measurement theory. Instruction in instrumentation calibrators and calibration circuits used for servicing and calibration of potentiometers, temperature transmitters, and various transducers. Content begins with an overview of industrial instrumentation and instrumentation signal scale conversions.

Lecture Hrs = 3, Lab Hrs = 3, Fee \$6

INTC 1453 4 CR
Analog Electronic Instrumentation II

Prerequisite: INTC 1452. READ

A study of analog electronic controllers and complete electronic instrumentation systems. An introduction to discrete components and basic power supplies, amplifiers, and oscillator supports and assignments in printed circuit board testing. This course continues the study of measurement instrumentation. Content begins with a review of basic concepts and adds non-linear flow instrumentation signal scale conversions.

Lecture Hrs = 3, Lab Hrs = 3, Fee = \$6

INTC 2330 3 CR
Troubleshooting

Prerequisite: INTC 1441. READ

A hands-on approach to the techniques of troubleshooting in a sophisticated instrumented environment. Laboratory exercises require troubleshooting upsets in actual chemical process. This course provides the student with the assignment of a project to complete for credit. Enrollment requires completion of all instrumentation courses and/or the approval of the instructor. Students must complete their project for a grade. Assessment includes self-motivation, interpersonal skills, and the ability to achieve project completion without instructor intervention. This course requires completion of a summation paper with documentation on the project.

Lecture Hrs = 3, Lab Hrs = 0

INTC 2436 4 CR
Distributed Control and Programmable Logic

Prerequisite: INTC 1441. READ

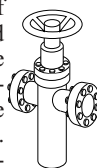
An overview of distributed control systems including configuration of programmable logic controllers, smart transmitters, and field communicators. Functions of digital systems in a process control environment. This course offers a deeper understanding of current automatic control applications in industry. The course takes a holistic approach to understanding the role of instrumentation in the process industry. The student integrates typical processing equipment and applied instrumentation for that equipment. Studies include ad-

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Ω Indicates courses taught with optional honors contracts.

Σ Indicates honors courses.

See page 20 for additional information on the Honors Program.



vanced control concepts, computer control schemes, programmable logic control applications, and advanced troubleshooting techniques. The lab offers the student hands-on application opportunities relating to the topics above.
Lecture Hrs = 3, Lab Hrs = 3, Fee \$6

ITCC 1402 4 CR
Local Area Networks Design and
Protocols: Cisco 1

Prerequisite: READ
Pre- Corequisite: CPMT 1411
Skill development in the design and installation of local area networks to ensure optimal throughput. Topics include cabling, cable closets, management devices, selection, and installation of network devices, protocols, and subnetting.
Lecture Hrs = 3, Lab Hrs = 3, Fee \$6

ITCC 1406 4 CR
Basic Router Configuration: Cisco 2

Prerequisite: ITCC 1402. READ
An introduction to Cisco basic router configuration for local area networks. Topics include initial router configuration for TCP/IP, management of the configuration, backup of router configuration files, routing protocols, and the use of security features.
Lecture Hrs = 3, Lab Hrs = 3, Fee \$6

ITCC 1442 4 CR
Local Area Management (LAN) :
Cisco 3

Prerequisite: ITCC 1406. READ
Skill development in managing traffic in local area networks (LAN) and in the management of network devices for LANs. This course includes configuring of routers for IPX protocol, filtering traffic in an IPX environment, and identifying and resolving network congestion problems.
Lecture Hrs = 3, Lab Hrs = 3, Fee \$6

ITCC 1446 4 CR
Wide Area Management (WAN) :
Cisco 4

Prerequisite: ITCC 1442. READ
An introduction to wide area networking (WAN) services and management.
Lecture Hrs = 3, Lab Hrs = 3, Fee \$6

ITNW 1337 3 CR
Introduction to the Internet

Pre or Corequisite: ITSC 1309. READ
Introduction to the Internet with emphasis on using the World Wide Web to locate, transfer, and publish information. Survey of emerging technologies on the Internet.
Lecture Hrs = 2, Lab Hrs = 2, Fee \$10

ITSC 1309 3 CR
Integrated Software Applications I

Prerequisite: READ
Integration of applications from popular business productivity software suites. Instruction in embedding data, linking and combining documents using word processing, spreadsheets, databases, and/or presentation media software.
Lecture Hrs = 2, Lab Hrs = 2, Fee \$10

ITSC 1313 3 CR
Internet /Web Page Development

Prerequisite: ITSC 1309 or consent of instructor. READ
Instruction in the use of Internet services and the fundamentals of web page design and web site development.
Lecture Hrs = 2, Lab Hrs = 2, Fee \$10

ITSC 1321 3 CR
PC Operating Systems – Windows

Prerequisite: READ
Introduction to windows-based microcomputer operating systems. Topics include installation and configuration, file management, memory and storage management, peripheral device control, and use of utilities.
Lecture Hrs = 2, Lab Hrs = 2, Fee \$10

ITSC 1364 3 CR
Practicum (or Field Experience) –
Computer and Information
Sciences, General

Prerequisite: Minimum of 12 hours in computer courses. READ
Practical training and experiences in the workplace. The college with the employer develops and documents an individualized plan for the student. The plan relates the workplace training and experiences to the student's general and technical course of study. The guided external experiences may be paid or unpaid. This course may be repeated if topics and learning outcomes vary.
Lecture Hrs = 1, Lab Hrs = 0, External Hrs = 20

ITSE 1310 3 CR
Pascal Programming

Prerequisite: READ
Introduction to computer programming using Pascal. Emphasis on the fundamentals of structured design, development, testing, implementation, and documentation. Includes language syntax, data and file structures, input-output devices, and files.
Lecture Hrs = 2, Lab Hrs = 2, Fee \$10

ITSE 1331 3 CR
Introduction to Visual BASIC
Programming

Prerequisite: READ
Introduction to computer programming using Visual BASIC. Emphasis on the fundamentals of structured design, development, testing, implementation, and documentation. Includes language syntax, data and file structures, input-output devices, and files.
Lecture Hrs = 2, Lab Hrs = 2, Fee \$10

ITSE 1350 3 CR
System Analysis and Design

Prerequisite: Any programming language course or consent of instructor. READ
Comprehensive introduction to the planning, design, and construction of computer information systems using the systems development life cycle and other appropriate design tools.
Lecture Hrs = 2, Lab Hrs = 2, Fee \$10

ITSE 2302 3 CR
Intermediate Web Programming

Prerequisite: ITNW 1337. READ
Pre or Corequisite: ITSE 2309.
Intermediate applications for Web authoring. Topics may include SSI, CGI, Perl, HTML, Java, Javascript, and/or ASP.
Lecture Hrs = 2, Lab Hrs = 2, Fee \$10

ITSE 2309 3 CR
Introduction to Database
Programming

Prerequisite: ITSC 1309 or consent of instructor. READ
Application development using database programming techniques emphasizing database structures, modeling, and database access.
Lecture Hrs = 2, Lab Hrs = 2, Fee \$10

ITSE 2317 3 CR
JAVA Programming

Prerequisite: COSC 1301, or ITSC 1309, or consent of instructor. READ
Introduction to JAVA programming with object-orientation. Emphasis on the fundamental syntax and semantics of JAVA for applications and web applets.
Lecture Hrs = 2, Lab Hrs = 2, Fee \$10

ITSE 2349 3 CR
Advanced Visual BASIC
Programming

Prerequisite: ITSE 1331, READ
Further applications of programming techniques using Visual BASIC. Topics include file access methods, data structures and modular programming, program testing and documentation.
Lecture Hrs = 2, Lab Hrs = 2, Fee \$10

ITSE 2359 3 CR
Advanced Computer Programming

Prerequisite: Any programming language course or consent of instructor. READ
Further applications of programming techniques. Topics include file access methods, data structures and modular programming, program testing and documentation.
Lecture Hrs = 2, Lab Hrs = 2, Fee \$10

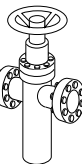
ITSE 2413 4 CR
Web Authoring

Prerequisite: ITNW 1337. READ
Pre- Corequisite: ITSE 2309
Instruction in designing and developing Web pages that incorporate text, graphics, and other supporting elements using current technologies and authoring tools. The student will create and maintain Web pages and supporting elements.
Lecture Hrs = 3, Lab Hrs = 3, Fee \$10

130

A prerequisite of READ, MATH, or WRITE indicates that the course has a skills prerequisite based on scores on local placement tests or their equivalent.

ITSW 1304	3 CR	KINE 1105	1 CR	KINE 1118	1 CR
Introduction to Spreadsheets		Golf, Beginning		Tennis, Experienced	
Prerequisite: ITSC 1309 or consent of instructor. READ		Prerequisite: READ		Prerequisite: READ	
Instruction in the concepts, procedures, and importance of electronic spreadsheets. Lecture Hrs = 2, Lab Hrs = 2, Fee \$10		A course designed to learn rules, scoring, etiquette, and fundamental techniques for golf. An emphasis will be placed on proper execution of all skills for golf using woods, irons, and putter. Lecture Hrs = 1, Lab Hrs = 2, Fee \$8		A course designed to review the skills for tennis. Rules will be reviewed and attention to style of play and strategy will be addressed for both singles and doubles play. Lecture Hrs = 1, Lab Hrs = 2, Fee \$8	
ITSW 1401	4 CR	KINE 1106	1 CR	KINE 1119	1 CR
Introduction to Word Processing		Golf, Experienced		Volleyball, Beginning	
Pre or corequisite: ITSC 1309, or consent of instructor. READ		Prerequisite: READ		Prerequisite: READ	
An overview of the production of documents, tables, and graphics. Lecture Hrs = 3, Lab Hrs = 3, Fee \$10		A course designed to learn rules, scoring games and techniques for the experienced golfer. An emphasis will be placed on course management and shot selection. Lecture Hrs = 1, Lab Hrs = 2, Fee \$8		A course designed to learn the fundamental skills for volleyball such as serving, overhead pass, forearm pass, attacking, blocking and floor defense. Team offensive and defensive systems will be discussed. Rules and proper equipment will be addressed. Lecture Hrs = 1, Lab Hrs = 2, Fee \$8	
ITSW 1410	4 CR	KINE 1113	1 CR	KINE 1120	1 CR
Presentation Media Software		Racquetball, Beginning		Volleyball, Experienced	
Prerequisite: ITSC 1309 or COSC 1301. READ		Prerequisite: READ		Prerequisite: READ	
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, Fee \$10		A course designed to learn rules, fundamental techniques and strategies for racquetball. Emphasis will be placed on proper techniques for singles and double play. Lecture Hrs = 1, Lab Hrs = 2, Fee \$8		A course designed to review the fundamental skills for volleyball. Team offensive and defensive systems will be emphasized especially in regard to speed of play and set selection. Rules will be addressed. Lecture Hrs = 1, Lab Hrs = 2, Fee \$8	
KINE 1101	1 CR	KINE 1114	1 CR	KINE 1121	1 CR
Bowling, Beginning		Racquetball, Experienced		Water Aerobics, Beginning	
Prerequisite: READ		Prerequisite: READ		Prerequisite: READ	
A course designed to learn the rules, scoring and fundamental techniques for bowling. An emphasis will be placed on proper execution and selection of equipment. Lecture Hrs = 1, Lab Hrs = 2, Fee \$8, Materials Fee \$30		A course designed to learn rules and techniques for the experienced students. An emphasis will be placed on skill development, strategy, and advance shot selection. Lecture Hrs = 1, Lab Hrs = 2, Fee \$8		A course designed to learn the basic skills for exercise in the water. Emphasis will be placed on various exercise routines in the water that incorporate strength, endurance and flexibility. Lecture Hrs = 1, Lab Hrs = 2, Fee \$8	
KINE 1102	1 CR	KINE 1115	1 CR	KINE 1122	1 CR
Bowling, Experienced		Swimming, Beginning		Water Aerobics, Experienced	
Prerequisite: READ		Prerequisite: READ		Prerequisite: READ	
A course designed to learn techniques for experienced individuals. Emphasis will be placed on proper and additional techniques with regard to strategy. Lecture Hrs = 1, Lab Hrs = 2, Fee \$8, Materials Fee \$30		A course designed to learn the skills for the crawl, back crawl, breaststroke, elementary backstroke, and sidestroke. Emphasis will be given to proper technique and proper breathing skills. Lecture Hrs = 1, Lab Hrs = 2, Fee \$8		A course designed to review the basic skills for exercise in the water. Emphasis will be placed on various exercise routines with extended duration. Students will devise a routine of their own and incorporate strength, endurance and flexibility. Lecture Hrs = 1, Lab Hrs = 2, Fee \$8	
KINE 1103	1 CR	KINE 1116	1 CR	KINE 1123	1 CR
Exercise, Beginning		Swimming, Experienced		Weight Training, Beginning	
Prerequisite: READ		Prerequisite: READ		Prerequisite: READ	
A course designed to study and apply the components of muscular strength and endurance, flexibility, body composition and cardiovascular endurance into a personal designed program of exercise. A prescribed program will be designed for students following pre-fitness assessment. Lecture Hrs = 1, Lab Hrs = 2, Fee \$8		A course designed to review the skills for the five basic strokes. Attention will be given to competency in execution of the five basic strokes. Endurance will also be emphasized. Lecture Hrs = 1, Lab Hrs = 2, Fee \$8		A course designed to introduce a variety of programs for building strength, power, endurance, flexibility and cardiovascular endurance. Both machines and free weights will be used for programs. Weight management will be discussed. Lecture Hrs = 1, Lab Hrs = 2, Fee \$8	
KINE 1104	1 CR	KINE 1117	1 CR		
Exercise, Experienced		Tennis, Beginning			
Prerequisite: READ		Prerequisite: READ			
A course designed to study and apply various programs of exercise such as circuit training, weight training, super circuit training and other prescribed programs for experienced individuals. Lecture Hrs = 1, Lab Hrs = 2, Fee \$8		A course designed to learn the fundamental techniques of tennis. Emphasis will be given to the skills of forehand, backhand, overhead, serve, and volley. Rules, etiquette, and strategy for single and doubles play will be addressed. Lecture Hrs = 1, Lab Hrs = 2, Fee \$8			



Ω Indicates courses taught with optional honors contracts.
 ∑ Indicates honors courses.
 See page 20 for additional information on the Honors Program.

KINE 1124 1 CR
 Weight Training, Experienced
Prerequisite: READ
 A course designed to review a variety of programs for building strength, power, endurance, flexibility and cardiovascular endurance. Supplementation and nutrition will be addressed.
 Lecture Hrs = 1, Lab Hrs = 2, Fee \$8

KINE 1125 1 CR
 Sailing, Beginning
Prerequisite: READ
 A course designed to learn the basic techniques in sailing with emphasis on equipment, safety and the skills of rigging, setting the sails, starting and stopping, tacking, tiller movement, leaving and returning to the beach.
 Lecture Hrs = 1, Lab Hrs = 2, Fee \$8

KINE 1126 1 CR
 Sailing, Experienced
Prerequisite: READ
 A course designed to review the techniques in sailing with emphasis on the skills of rigging, setting the sails, starting and stopping, tacking, jibing, tiller movement, leaving a beach, returning to beach, and correct language for sailing.
 Lecture Hrs = 1, Lab Hrs = 2, Fee \$8

KINE 1127 1 CR
 Yoga, Beginning
Prerequisite: READ
 A course designed to learn the importance and benefits of yoga. Learning skills will include postures (asanas), breathing, and relaxation techniques. An emphasis will be made to improve flexibility, strength, muscle tone, and concentration.
 Lecture Hrs = 1, Lab Hrs = 2, Fee \$8

KINE 1128 1 CR
 Yoga, Experienced
Prerequisite: READ
 A course designed to review the postures and techniques for Hatha Yoga. Emphasis will be given to flexibility, breathing and relaxation techniques.
 Lecture Hrs = 1, Lab Hrs = 2, Fee \$8

KINE 1129 1 CR
 Basketball, Beginning
Prerequisite: READ
 A course designed to learn rules, fundamental techniques and strategies for the sport of basketball. Emphasis will be placed on proper execution of individual and team skill concepts.
 Lecture Hrs = 1, Lab Hrs = 2, Fee \$8

KINE 1130 1 CR
 Basketball, Experienced
Prerequisite: READ
 A course designed to learn rules, advanced techniques and strategies for the sport of basketball. Emphasis will be placed on proper execution of individual and team skill concepts.
 Lecture Hrs = 1, Lab Hrs = 2, Fee \$8

KINE 1141 1 CR
 Self-Defense, Beginning
Prerequisite: READ
 Instruction will include specific moves related to martial art movements in regard to self-protection.
 Lecture Hrs = 1, Lab Hrs = 2, Fee \$8

KINE 1142 1 CR
 Self-Defense, Experienced
Prerequisite: READ
 A course designed to review specific moves related to martial art movements in regard to self-protection. Students will be required to demonstrate proficiency in martial art movements in sequence.
 Lecture Hrs = 1, Lab Hrs = 2, Fee \$8

KINE 1149 1 CR
 Conditioning for Athletics
Prerequisite: READ
 A course designed to develop strength and endurance as related to athletics.
 Lecture Hrs = 1, Lab Hrs = 2, Fee \$8

KINE 1150 1 CR
 Conditioning for Athletics
Prerequisite: READ
 A course designed to develop speed and power as related to athletics.
 Lecture Hrs = 1, Lab Hrs = 2, Fee \$8

KINE 1151 1 CR
 Skin and Scuba Diving, Beginning
Prerequisite: Good swimming skills. READ
 A course designed to learn fundamental techniques for under water procedures. Techniques in breathing, communicating and diving will be taught. Manipulation of diving equipment will be covered as well as safety procedures.
 Lecture Hrs = 1, Lab Hrs = 2, Fee \$8

KINE 1152 1 CR
 Scuba Diving, Experienced
Prerequisite: READ
 Must be at least 17 years of age and have participated in scuba diving for one year as a certified diver.
 Lecture Hrs = 1, Lab Hrs = 2, Fee \$8

KINE 1183M, 1184M, 2183M, 2184M 1 CR
 Basketball
Prerequisite: With permission of the coach. READ
 A course designed for individuals on athletic scholarships who participate in basketball.
 Lecture Hrs = 1, Lab Hrs = 2, Fee \$8

KINE 1185W, 1186W, 2185W, 2186W 1 CR
 Tennis
Prerequisite: With permission of the coach. READ
 A course designed for individuals on athletic scholarships who participate in tennis.
 Lecture Hrs = 1, Lab Hrs = 2, Fee \$8

KINE 1187W, 1188W, 2187W, 2188W 1 CR
 Volleyball
Prerequisite: With permission of the coach. READ
 A course designed for individuals on athletic scholarships who participate in volleyball.
 Lecture Hrs = 1, Lab Hrs = 2, Fee \$8

KINE 1238 2 CR
 Introduction to Physical Fitness and Sport
Prerequisite: READ
 The orientation to the field of physical fitness and sport. The study and practice of activity and principles that promote physical fitness.
 Lecture Hrs = 2, Lab Hrs = 0, Fee \$8

KINE 1301 Ω 3 CR
 Foundations in Physical Education
Prerequisite: READ
 A course which includes the history, principles, terminology, aims and objectives of physical education and related areas of health and recreation.
 Lecture Hrs = 3, Lab Hrs = 0, Fee \$8

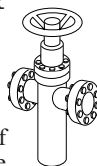
KINE 1304 3 CR
 Personal Health
Prerequisite: READ
 Fundamentals of health dealing with personal hygiene. Includes a study of bodily organs and diseases, physical and mental health concepts, and community health problems.
 Lecture Hrs = 3, Lab Hrs = 0, Fee \$8

PARTNERSHIPS work

Schools  Lee College  Business  Industry  Universities

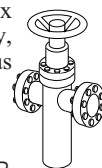
A prerequisite of READ, MATH, or WRITE indicates that the course has a skills prerequisite based on scores on local placement tests or their equivalent.

<p>KINE 1305 3 CR The Healthy American <i>Prerequisite: READ</i> A course designed for individuals to make lifestyle assessments and plan regular programs of physical exercise to enhance personal wellness. Lecture Hrs = 3, Lab Hrs = 0, Fee \$8</p>	<p>depth of 9 feet and bring a 10-pound diving brick to the surface. Students should be able to dive to a depth of 5 feet and swim underwater for at least 15 yards and be able to tread water for 1 minute. Lecture Hrs = 1, Lab Hrs = 2, Fee \$8</p>	<p>LGLA 1353 3 CR Wills, Trusts and Probate Administration <i>Prerequisite: READ</i> This course presents fundamental concepts of the law of wills, trusts, and probate administration with emphasis on the paralegal's role. Lecture Hrs = 3, Lab Hrs = 0</p>
<p>KINE 1306 3 CR First Aid <i>Prerequisite: READ</i> A course which includes instruction in American Red Cross Standard First Aid and personal safety and cardiopulmonary resuscitation. Upon successfully completing the course, students are certified in first aid and CPR. Lecture Hrs = 3, Lab Hrs = 0, Fee \$8</p>	<p>KINE 2376 3 CR Prevention and Care of Athletic Injuries <i>Prerequisite: READ</i> Presents study of massage, taping, bandaging, care of sprains, bruises, strains, wound and problems of the athletic training room. Lecture Hrs = 3, Lab Hrs = 0, Fee \$8</p>	<p>LGLA 1355 3 CR Family Law <i>Prerequisite: READ</i> This course presents fundamental concepts of family law with emphasis on the paralegal's role. Topics include formal and informal marriages, divorce, annulment, marital property, and the parent-child relationship. Lecture Hrs = 3, Lab Hrs = 0</p>
<p>KINE 1308 3 CR Sports Officiating <i>Prerequisite: READ</i> A course designed for students desiring to increase their knowledge and appreciation of sports. Students will be given an insight into the rules of various sports, the technique, procedure and practice of officiating. Lecture Hrs = 2, Lab Hrs = 2</p>	<p>LGLA 1301 3 CR Legal Research and Writing <i>Prerequisite: READ</i> This course provides a working knowledge of fundamentals of effective legal research and writing. Topics include law library techniques, computer assisted legal research, briefs, and legal memoranda. Lecture Hrs = 3, Lab Hrs = 0</p>	<p>LGLA 1391 3 CR Special Topics in Paralegal/Legal Assistant <i>Prerequisite: READ</i> Topics address recently identified current events, skills, knowledges, and/or attitudes and behaviors pertinent to the technology or occupation and relevant to the professional development of the student. Lecture Hrs = 3, Lab Hrs = 0</p>
<p>KINE 1332 3 CR Elementary and Recreational Game Skills <i>Prerequisite: READ</i> Instruction in games, recreational activities and rhythm skills for preschool through grade six with emphasis on methods of presentation. Lecture Hrs = 3, Lab Hrs = 0, Fee \$8</p>	<p>LGLA 1307 3 CR Introduction to Law and the Legal Professions <i>Prerequisite: READ</i> This course provides an overview of the law and the legal professions. Topics include legal concepts, systems, and terminology; ethical obligations and regulations; professional trends and issues with particular emphasis on the paralegal. Lecture Hrs = 3, Lab Hrs = 0</p>	<p>LGLA 2301 3 CR Environmental Law <i>Prerequisite: Six semester hours of Legal Assistant courses or consent of instructor. READ</i> This course presents fundamental concepts of environmental law with emphasis on the paralegal's role. Topics include terminology, creation of environmental law, and the application of statutes and government regulations to specific fact situations. Lecture Hrs = 3, Lab Hrs = 0</p>
<p>KINE 2149 1 CR Conditioning for Athletics <i>Prerequisite: READ</i> A course designed to develop dynamic speed, coordination and balance as related to athletics. Lecture Hrs = 1, Lab Hrs = 2, Fee \$8</p>	<p>LGLA 1343 3 CR Bankruptcy <i>Prerequisite: READ</i> This course presents fundamental concepts of bankruptcy law and procedure with emphasis on the paralegal's role. Topics include individual and business liquidation and reorganization. Lecture Hrs = 3, Lab Hrs = 0</p>	<p>LGLA 2303 3 CR Torts and Personal Injury Law <i>Prerequisite: READ</i> This course presents fundamental concepts of tort law with emphasis on the paralegal's role. Topics include intentional torts, negligence, and strict liability. Lecture Hrs = 3, Lab Hrs = 0</p>
<p>KINE 2150 1 CR Conditioning for Athletics <i>Prerequisite: READ</i> A course designed to develop dynamic power and flexibility for athletics. Lecture Hrs = 1, Lab Hrs = 2, Fee \$8</p>	<p>LGLA 1345 3 CR Civil Litigation <i>Prerequisite: READ</i> This course presents fundamental concepts and procedures of civil litigation with emphasis on the paralegal's role. Topics include pretrial, trial, and post trial phases of litigation. Lecture Hrs = 3, Lab Hrs = 0</p>	<p>LGLA 2307 3 CR Law Office Management <i>Prerequisite: READ</i> This course presents the fundamentals of law office management and organization including basic principles and structure of management, administrative and substantive systems in the law office, and law practice technology. Lecture Hrs = 3, Lab Hrs = 0</p>
<p>KINE 2155 1 CR Water Safety <i>Prerequisites: Be at least 15 years old, have a current Standard First Aid and CPR card (within one year), and have competent swimming skills as required (see below). READ</i> Basic Lifeguarding is designed to: (1) train participants in basic water safety and rescue skills; (2) develop the skills necessary to obtain Basic Lifeguarding certification; and (3) prepare students for summer-time employment. Required swimming skills: Students must be able to swim continuously 500 yards competently demonstrating the five basic strokes (crawl, back crawl, breaststroke, elementary backstroke and sidestroke). Students should be able to dive to a minimum</p>	<p>LGLA 1351 3 CR Contracts <i>Prerequisite: READ</i> This course presents fundamental concepts of contract law with emphasis on the paralegal's role. Topics include formation, performance, and enforcement of contracts under the common law and the Uniform Commercial Code. Lecture Hrs = 3, Lab Hrs = 0</p>	



LGLA 2309 Real Property <i>Prerequisite:</i> READ This course presents fundamental concepts of real property law with emphasis on the paralegal's role. Topics include the nature of real property, rights and duties of ownership, land use, voluntary and involuntary conveyances, and the recording of and searching for real estate documents. Lecture Hrs = 3 , Lab Hrs = 0	3 CR	tional institution and a business or industry. Mentored and supervised by a workplace employee, the student achieves objectives that are developed and documented by the college and that are directly related to specific occupational outcomes. This may be a paid or unpaid experience. This course may be repeated if topics and learning outcomes vary. Lecture Hrs = 1, Lab Hrs = 0, External Lab Hrs = 12		roots, quadratic equations and functions, equations of second degree and their graphs, inequalities and sets, exponential and logarithmic functions, and problem solving. This course, when completed with a grade of "C" or higher, provides adequate preparation for MATH 1332 or MATH 1414. Credit for this course is not transferable. Lecture Hrs = 3, Lab Hrs = 0
LGLA 2311 Business Organizations <i>Prerequisite:</i> READ This course presents basic concepts of business organizations with emphasis on the paralegal's role. Topics include law of agency, sole proprietorships, forms of partnerships, corporations, and other emerging business entities. Lecture Hrs = 3 , Lab Hrs = 0	3 CR	MATH 110 (formerly 0110) Mathematics for Allied Health <i>Prerequisite:</i> MATH, READ Treats the area of mathematics of dosages and solutions, reflecting a major emphasis on the metric, apothecary, and household systems in terms of refresher math, instruction in reading dosage labels, measurements of parenteral dosages, and pediatric drug calculation. Lecture Hrs = 1, Lab Hrs = 0	0 CR	MATH 520 (formerly 0520) Mathematics and Introductory Algebra <i>Prerequisite:</i> MATH, READ. This course provides a review of addition, subtraction, multiplication and division of integers and rational numbers with a strong emphasis on decimals, fractions, ratio, proportions, and percents. Also, a strong emphasis on algebraic skills and concepts of the real number system, solving equations and inequalities, exponents and polynomials, factoring, rational expressions, graphing linear equations, linear systems, roots and radicals, quadratic equations and applied problems. This course prepares students to take MATH 330 or MATH 530, when completed with a grade of "C" or higher. May not be applied toward a certificate or degree at Lee College. Will not transfer to another college or university. Lecture Hrs = 5, Lab Hrs = 0
LGLA 2313 Criminal Law and Procedure <i>Prerequisite:</i> READ This course introduces the criminal justice system including procedures from arrest to final disposition, principles of federal and state law, and the preparation of pleadings and motions. Lecture Hrs = 3 , Lab Hrs = 0	3 CR	MATH 120 (formerly 0120) TASP Mathematics <i>Prerequisite:</i> MATH 330. MATH, READ TASP Math is limited to students who have passed MATH 330 but have not passed the TASP exam. This course helps prepare the student for TASP. Lecture Hrs = 0, Lab Hrs = 3	0 CR	MATH 530 (formerly 0530) Introductory and Intermediate Algebra: A Combined Course <i>Prerequisite:</i> MATH, READ. This course provides a strong emphasis on algebraic skills and concepts of the real number system, solving polynomials, factoring, rational expressions and equations, linear systems, roots and radicals, quadratic equations and inequalities, functions including exponents and logarithmic matrices, and problem solving. This course prepares students to take MATH 1414 when completed with a grade of "C" or higher. May not be applied toward a certificate or degree at Lee College. Will not transfer to another college or university. Lecture Hrs = 5, Lab Hrs = 0
LGLA 2323 Intellectual Property <i>Prerequisite:</i> READ A course designed to prepare the paralegal student to assist in the preparation and filing of patents, copyrights, and trademarks. Lecture Hrs = 3 , Lab Hrs = 0	3 CR	MATH 310 (formerly 0310) Basic Mathematics <i>Prerequisite:</i> READ. This course provides the basic arithmetic skills of addition, subtraction, multiplication, and division of whole numbers, fractions, and decimals; ratio and proportion, percent, measures, averages, exponents, square roots, problem solving, geometry, logic, and introduction to algebra. In this course a grade of "C" or higher prepares the student to take MATH 320. Credit for this course is not transferable. Lecture Hrs = 3, Lab Hrs = 0	0 CR	MATH 1316 Plane Trigonometry <i>Prerequisite:</i> MATH 1414 with a grade of "C" or better. READ, WRITE. This course covers trigonometric functions, identities, equations, and applications. Lecture Hrs = 3, Lab Hrs = 0
LGLA 2331 Advanced Legal Research and Writing <i>Prerequisite:</i> LGLA 1301. READ This course builds upon skills acquired in prior legal research and writing courses including computerized research techniques and preparation of complex legal documents such as briefs, legal office memoranda, and citation forms. Lecture Hrs = 3 , Lab Hrs = 0	3 CR	MATH 320 (formerly 0320) Introductory Algebra <i>Prerequisite:</i> MATH, READ. This course provides a strong emphasis on algebraic skills and concepts of the numbers of ordinary arithmetic and their properties; integers and rational numbers; polynomials in one or more variables; factoring; fractional expressions; solving systems of equations; graphs of linear equations; solving radical, linear and quadratic equations; inequalities; sets; and applied problems. This course prepares students to take MATH 330 or MATH 110 when completed with a grade of "C" or higher. May not be applied toward a certificate or degree at Lee College. Credit for this course is not transferable. Lecture Hrs = 3, Lab Hrs = 0	0 CR	MATH 1324 Finite Mathematics with Business Applications <i>Prerequisite:</i> MATH 1414 with a grade of "C" or better. READ, WRITE. Includes such topics as sets, functions, linear and quadratic inequalities, linear programming, the simplex method, matrix algebra, counting techniques, probability, and decision making. A computer component may be included. Lecture Hrs = 3, Lab Hrs = 0
LGLA 2333 Advanced Legal Document Preparation <i>Prerequisite:</i> Nine semester hours of Legal Assistant courses or consent of instructor. READ Preparation of legal documents based on hypothetical fact situations drawn from various areas including real estate, family law, contracts, litigation, and business organizations. Lecture Hrs = 3 , Lab Hrs = 0, Fee \$10	3 CR	MATH 330 (formerly 0330) Intermediate Algebra <i>Prerequisite:</i> MATH, READ. This course covers these topics: real numbers and their properties, linear equations, system of equations, polynomials and functions, fractional expressions and equations, exponents, powers,	0 CR	
LGLA 2388 Internship - Paralegal/Legal Assistant <i>Prerequisite:</i> Twenty-seven semester hours of Legal Assistant courses. READ An experience external to the college for an advanced student in a specialized field involving a written agreement between the educa-	3 CR			

MATH 1332	3 CR	MATH 1425	4 CR	MATH 2418	4 CR
Mathematics for Liberal Arts I		Calculus with Business Applications		Linear Algebra	
Prerequisite: MATH, READ, WRITE.		Prerequisite: MATH 1324 with a grade of "C" or better. READ, WRITE.		Prerequisite: MATH 2413 with a grade of "C" or better. READ, WRITE.	
This course assists students in becoming familiar with certain mathematical topics: sets, logic, different numeration systems, number theory, the real numbers and their properties, mathematical systems, equations, inequalities, graphs, and functions.		Includes such topics as limits and continuity, rates of change, slope, differentiation, the derivative, maxima and minima techniques, integration: definite and indefinite integration techniques.		Introductory course in linear algebra covering abstract ideas of vector spaces and linear transformations as well as applications of these concepts, systems of linear equations, matrices and determinants, quadratic forms, equivalence and similarity of matrices eigenvectors and eigenvalues, and the Gram-Schmidt procedure.	
Note: Students entering the University of Houston-Clear Lake, in the School of Human Sciences and Humanities (with the exception of education majors) may use MATH 1332 as an admission requirement instead of College Algebra.		Lecture Hrs = 4, Lab Hrs = 0		Lecture Hrs = 4, Lab Hrs = 0	
Lecture Hrs = 3, Lab Hrs = 0		MATH 2305	3 CR	MATH 2420	4 CR
		Discrete Mathematics		Differential Equations	
		Prerequisite or corequisite: MATH 1414 with a grade of "C" or better. READ, WRITE.		Prerequisite: MATH 2414 with a grade of "C" or better. READ, WRITE.	
		A study of set theory, relations, functions, matrices, number systems, number theory, differential equations, graphs and trees, combinatorics, probability, and Boolean Algebra.		Integration of differential equations of the first order by elementary methods, geometry and integral curves, physical applications, properties of linear equations, simultaneous equations with applications, solutions by Laplace transforms and series.	
		Lecture Hrs = 3, Lab Hrs = 0		Lecture Hrs = 4, Lab Hrs = 0	
MATH 1333	3 CR	MATH 2412	4 CR	MATH 2442	4 CR
Mathematics for Liberal Arts II		PreCalculus		Elementary Statistics	
Prerequisite: MATH 1332 with a grade of "C" or better. READ, WRITE.		Prerequisite: MATH 1414 with a grade of "C" or better and MATH 1316 with a grade of "C" or better. READ, WRITE.		Prerequisite: MATH 1414 with a grade of "C" or better. READ, WRITE.	
This course assists students in becoming familiar with basic geometric terms and concepts. The student will be exposed to counting methods, introductory probability, statistics, consumer mathematics, computers and matrices and their applications.		This course covers the applications of algebra and trigonometry to the study of elementary functions and their graphs including polynomial, rational, exponential, logarithmic, and trigonometric functions and may include topics from analytical geometry.		A study of collection and tabulation of data, bar charts, graphs, sampling, measures of central tendency and variability, correlation, index numbers, statistical distributions, probability, linear regression, and applications to various fields of study.	
Lecture Hrs = 3, Lab Hrs = 0		Lecture Hrs = 4, Lab Hrs = 0		Lecture Hrs = 4, Lab Hrs = 0	
MATH 1350	3 CR	MATH 2413	4 CR	MCHN 1300	3 CR
Fundamentals of Mathematics I for Middle Grade Teacher Certification		Calculus I with Analytic Geometry		Machinist I	
Prerequisite: MATH 1414 with a grade of "C" or better. READ, WRITE.		Prerequisite: MATH 2412 with a grade of "C" or better. READ, WRITE.		Prerequisite: READ	
This course covers concepts of sets, functions, numeration systems, number theory, and properties of the natural numbers, integers, rational, and real number systems with an emphasis on problem solving and critical thinking. This course is designed specifically for students who seek middle grade (4-8) teacher certification.		Topics covered in this course include limits, derivatives, applications of the derivative, mean value theorem, antiderivatives, fundamental theorem of calculus, numerical integration, and the definite integral with applications.		Designed to prepare the student for the use of math related to machining courses. Course includes safety procedures to insure a safe shop.	
Lecture Hrs = 3, Lab Hrs = 0		Lecture Hrs = 4, Lab Hrs = 0		Lecture Hrs = 3, Lab Hrs = 0	
MATH 1351	3 CR	MATH 2414	4 CR	MCHN 1317	3 CR
Fundamentals of Mathematics II for Middle Grade Teacher Certification		Calculus II with Analytic Geometry		Machine Shop Blueprint Reading	
Prerequisite: MATH 1350 with a grade of "C" or better. READ, WRITE.		Prerequisite: MATH 2413 with a grade of "C" or better. READ, WRITE.		Prerequisite: READ	
This course covers concepts of geometry, probability, and statistics, as well as applications of the algebraic properties of real numbers to concepts of measurement with an emphasis on problem solving and critical thinking. This course is designed specifically for students who seek middle grade (4-8) teacher certification.		Topics covered in this course include transcendental functions, techniques of integration, indeterminate forms, improper integrals, sequences, infinite series, parametric equations, and polar coordinates.		A study of the different types of manufacturing blueprints and the application of each. Emphasis on machine blueprints.	
Lecture Hrs = 3, Lab Hrs = 0		Lecture Hrs = 4, Lab Hrs = 0		Lecture Hrs = 3, Lab Hrs = 0	
MATH 1414	4 CR	MATH 2415	4 CR	MCHN 1415	4 CR
College Algebra		Calculus III with Analytic Geometry		Machine Tool Repair	
Prerequisite: MATH, READ, WRITE.		Prerequisite: MATH 2414 with a grade of "C" or better. READ, WRITE.		Prerequisite: MCHN 2445. READ	
This course covers the study of quadratics; polynomial, rational, logarithmic, and exponential functions; systems of equations; progressions; sequences and series; and matrices and determinants.		Topics covered in this course include vector algebra and solid analytic geometry, calculus of functions of several variables, partial differentiation, Lagrange multipliers, multiple integration theory, line and surface integrals, Green's theorem, and Stokes' theorem.		Basic repair of machine tools, disassembly, parts fabrication, and assembly of machine types, including related math, blueprint reading, and safety.	
Lecture Hrs = 4, Lab Hrs = 0		Lecture Hrs = 4, Lab Hrs = 0		Lecture Hrs = 3, Lab Hrs = 3, Fee \$20	



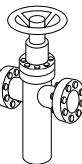
Ω Indicates courses taught with optional honors contracts.
 ∑ Indicates honors courses.
 See page 20 for additional information on the Honors Program.

MCHN 1425 Millwright I Prerequisite: READ An introduction to the millwright trade. A study of common millwright tools and fasteners. Skills developed in basic layout procedures, gasket making and installation and oxygen/fuel cutting. Emphasis on safety in the accomplishment of these activities. Lecture Hrs = 3, Lab Hrs = 3, Fee \$20	4 CR	MCHN 2407 Millwright IV Prerequisite: MCHN 1429. READ Presentation of the Occupational Safety and Health Administration (OSHA), Environmental Protection Agency (EPA), and Material Safety Data Sheets (MSDS) standards related to lubricants. Lubricant storage, types, equipment, and methods. Emphasis on prealignment for drilling and tapping and setting of base plates and soleplate. Lecture Hrs = 3, Lab Hrs = 3, Fee \$20	4 CR	MRMT 1167 Practicum (or Field Experience) - Medical Transcription Prerequisite: MRMT 1307 or approval of instructor. READ. Corequisite: MRMT 2433. An intermediate, or advanced type of health professions work-based instruction that helps students gain practical experience in the discipline, enhance skills and integrate knowledge. The emphasis is on practical work experience for which the student has already acquired the necessary theoretical knowledge and basic skills. Direct supervision is provided by the clinical professional, generally a clinical preceptor. A health practicum may be a paid or unpaid learning experience. Lecture Hrs = 0, Lab Hrs = 0, External Lab = 8, Fee \$10, Insurance \$18	1 CR
MCHN 1429 Millwright II Prerequisite: MCHN 1425. READ An introduction to millwright tools including speciality power and precision tools. A study of the property of metals and the installation of packings. Emphasis on safety in the accomplishment of these activities. Lecture Hrs = 3, Lab Hrs = 3, Fee \$20	4 CR	MCHN 2412 Millwright V Prerequisite: MCHN 2407. READ A study of the recognition and application of gearboxes. A review of drive installations using chain and belt drives. This course will focus on troubleshooting, repairing, and installing gearboxes, chain drives, and belt drives. Lecture Hrs = 3, Lab Hrs = 3, Fee \$20	4 CR	MRMT 1307 Medical Transcription Fundamentals Prerequisite: HITT 1305, HITT 1349, ability to type 40 wpm, ENGL 1301, BIOL 2401 or BIOL 2404, ITSC 1309, or approval of instructor. READ. Fundamentals of medical transcription with hands-on experience in transcribing physician dictation including basic reports such as history and physicals, discharge summaries, consultations, operative reports, and other medical reports. Utilizes transcribing and information processing equipment compatible with industry standards. Designed to develop speed and accuracy. Lecture Hrs = 1, Lab Hrs = 4, Fee \$10	3 CR
MCHN 1432 Bench Work and Layout Prerequisite: READ An introduction to bench work and layout. Application of the use and theory of tools; such as, hand tools, height gages, pedestal grinders, and layout tools. Lecture Hrs = 3, Lab Hrs = 3, Fee = \$20	4 CR	MCHN 2434 Millwright III Prerequisite: MCHN 2445, MCHN 1317. READ A continuation of Fundamentals of CNC Machine Controls with an emphasis on machining centers. Lecture Hrs = 3, Lab Hrs = 3, Fee \$20	4 CR	MRMT 2433 Advanced Medical Transcription Prerequisite: MRMT 1307 or approval of instructor. READ. Production of advanced reports of physician dictation with increasing speed and accuracy, including history and physicals, consultations, discharge summaries, operative reports, and other medical reports. Lecture Hrs = 1, Lab Hrs = 4, Fee \$10	4 CR
MCHN 1452 Intermediate Machining I Prerequisite: READ Operation of drills, milling machines, lathes, and power saws. Introduction to precision measuring techniques. Lecture Hrs = 3, Lab Hrs = 3, Fee = \$20	4 CR	MCHN 2441 Advanced Machining Operations I Prerequisite: MCHN 1438. READ An advanced study of lathe and milling operations. Emphasis on advanced cutting operations of the lathe and milling machines, including the use of carbide insert tooling, special tooling, bench assembly, and materials metallurgy. Lecture Hrs = 3, Lab Hrs = 3, Fee \$20	4 CR	MUAP Ω Applied Music Private study of strings, woodwinds, brass, percussion, guitar, organ, piano, harp, voice, music and conducting offered for credit. Lecture Hrs = 0, Lab Hrs = .5 or 1 <i>The maximum number of Applied Music hours a student can take is 20.</i>	
MCHN 1454 Intermediate Machining II Prerequisite: MCHN 1452. READ Development of job process plan to include operation of lathes, milling machines, drill press machines, and power saws. Set-up, layout, and tool maintenance is included. Emphasis on shop safety and preventative maintenance. Lecture Hrs = 3, Lab Hrs = 3, Fee = \$20	4 CR	MCHN 2445 Advanced Machining Operations II Prerequisite: MCHN 1438. READ Advanced milling, drilling, grinding, and lathe operations to close tolerance dimensions. Emphasis on job planning and advanced uses of precision measuring instruments. Lecture Hrs = 3, Lab Hrs = 3, Fee \$20	4 CR	MRMT 2433 Advanced Medical Transcription Prerequisite: MRMT 1307 or approval of instructor. READ. Production of advanced reports of physician dictation with increasing speed and accuracy, including history and physicals, consultations, discharge summaries, operative reports, and other medical reports. Lecture Hrs = 1, Lab Hrs = 4, Fee \$10	
MCHN 2403 Fundamentals of CNC Machine Prerequisite: MCHN 1454. READ An introduction to G and M codes (RS274-D) necessary to program Computer Numerical Controlled (CNC) machines. Lecture Hrs = 3, Lab Hrs = 3, Fee \$20	4 CR	MRKG 1311 Principles of Marketing Prerequisite: READ Introduction to basic marketing functions; identification of consumer and organizational needs; explanation of economic, psychological, sociological, and global issues; and description and analysis of the importance of marketing research. Lecture Hrs = 3, Lab Hrs = 0	3 CR		
MCHN 2405 Millwright III Prerequisite: MCHN 1425. READ An introduction to bearings and seals. Identification of common bearings and seals. Emphasis on design and installation of seals, bearings, and couplings. Lecture Hrs = 3, Lab Hrs = 3, Fee \$20	4 CR				

Ω Indicates courses taught with optional honors contracts.
Σ Indicates honors courses.
See page 20 for additional information on the Honors Program.

MUAP (Applied Music Non-Majors)			MUAP		MUAP	
			1141, 1142, 2141, 2142	Fee \$24	1187, 1188, 2187, 2188	Fee \$24
MUAP			1241, 1242, 2241, 2242	Fee \$48	1287, 1288, 2287, 2288	Fee \$48
1101, 1102, 2101, 2102	Fee \$24		Brass-French Horn		Str-Bass Guitar	
1201, 1202, 2201, 2202	Fee \$48		Prerequisite: READ		Prerequisite: READ	
Strings-Violin			MUAP		MUAP	
Prerequisite: READ			1145, 1146, 2145, 2146	Fee \$24	1191, 1192, 2191, 2192	Fee \$24
			1245, 1246, 2245, 2246	Fee \$48	1291, 1292, 2291, 2292	Fee \$48
MUAP			Brass-Trombone		Str-Elec Guitar	
1105, 1106, 2105, 2106	Fee \$24		Prerequisite: READ		Prerequisite: READ	
1205, 1206, 2205, 2206	Fee \$48		MUAP		MUAP 2299	
Strings-Viola			1153, 1154, 2153, 2154	Fee \$24	Music Conducting	
Prerequisite: READ			1253, 1254, 2253, 2254	Fee \$48	Prerequisite: READ	
MUAP			Brass-Tuba		Fee \$48	
1109, 1110, 2109, 2110	Fee \$24		Prerequisite: READ		MUAP (Applied Music Majors)	
1209, 1210, 2209, 2210	Fee \$48		MUAP		MUAP 1203, 1204, 2203, 2204	
Strings-Cello			1157, 1158, 2157, 2158	Fee \$24	Violin - Freshman, Sophomore	
Prerequisite: READ			1257, 1258, 2257, 2258	Fee \$48	Prerequisite: READ	
MUAP			Percussion		Fee \$48	
1113, 1114, 2113, 2114	Fee \$24		Prerequisite: READ		MUAP 1207, 1208, 2207, 2208	
1213, 1214, 2213, 2214	Fee \$48		MUAP		Viola - Freshman, Sophomore	
Strings-Str Bass			1161, 1162, 2161, 2162	Fee \$24	Prerequisite: READ	
Prerequisite: READ			1261, 1262, 2261, 2262	Fee \$48	Fee \$48	
MUAP			Str-Class Guitar		MUAP 1211, 1212, 2211, 2212	
1117, 1118, 2117, 2118	Fee \$24		Prerequisite: READ		Cello - Freshman, Sophomore	
1217, 1218, 2217, 2218	Fee \$48		MUAP		Prerequisite: READ	
Woodwind-Flute			1165, 1166, 2165, 2166	Fee \$24	Fee \$48	
Prerequisite: READ			1265, 1266, 2265, 2266	Fee \$48	MUAP 1215, 1216, 2215, 2216	
MUAP			Organ		Str Bass - Freshman, Sophomore	
1121, 1122, 2121, 2122	Fee \$24		Prerequisite: READ		Prerequisite: READ	
1221, 1222, 2221, 2222	Fee \$48		MUAP		Fee \$48	
Woodwind-Oboe			1169, 1170, 2169, 2170	Fee \$24	MUAP 1219, 1220, 2219, 2220	
Prerequisite: READ			1269, 1270, 2269, 2270	Fee \$48	Flute - Freshman, Sophomore	
MUAP			Piano		Prerequisite: READ	
1125, 1126, 2125, 2126	Fee \$24		Prerequisite: READ		Fee \$48	
1225, 1226, 2225, 2226	Fee \$48		MUAP		MUAP 1223, 1224, 2223, 2224	
Woodwind-Bassoon			1177, 1178, 2177, 2178	Fee \$24	Oboe - Freshman, Sophomore	
Prerequisite: READ			1277, 1278, 2277, 2278	Fee \$48	Prerequisite: READ	
MUAP			Harp		Fee \$48	
1129, 1130, 2129, 2130	Fee \$24		Prerequisite: READ		MUAP 1227, 1228, 2227, 2228	
1229, 1230, 2229, 2230	Fee \$48		MUAP		Bassoon - Freshman, Sophomore	
Woodwind-Clarinet			1181, 1182, 2181, 2182	Fee \$24	Prerequisite: READ	
Prerequisite: READ			1281, 1282, 2281, 2282	Fee \$48	Fee \$48	
MUAP			Voice		MUAP 1231, 1232, 2231, 2232	
1133, 1134, 2133, 2134	Fee \$24		Prerequisite: READ		Clarinet - Freshman, Sophomore	
1233, 1234, 2233, 2234	Fee \$48				Prerequisite: READ	
Woodwind-Saxophone					Fee \$48	
Prerequisite: READ						
MUAP						
1137, 1138, 2137, 2138	Fee \$24					
1237, 1238, 2237, 2238	Fee \$48					
Brass-Trumpet						
Prerequisite: READ						

A prerequisite of READ, MATH, or WRITE indicates that the course has a skills prerequisite based on scores on local placement tests or their equivalent.



MUAP 1235, 1236, 2235, 2236
Saxophone - Freshman, Sophomore

Prerequisite: READ
Fee \$48

MUAP 1239, 1240, 2239, 2240
Trumpet - Freshman, Sophomore

Prerequisite: READ
Fee \$48

MUAP 1243, 1244, 2243, 2244
French Horn - Freshman, Sophomore

Prerequisite: READ
Fee \$48

MUAP 1247, 1248, 2247, 2248
Trombone - Freshman, Sophomore

Prerequisite: READ
Fee \$48

MUAP 1255, 1256, 2255, 2256
Tuba - Freshman, Sophomore

Prerequisite: READ
Fee \$48

MUAP 1259, 1260, 2259, 2260
Percussion - Freshman, Sophomore

Prerequisite: READ
Fee \$48

MUAP 1263, 1264, 2263, 2264
Class Guitar - Freshman, Sophomore

Prerequisite: READ
Fee \$48

MUAP 1267, 1268, 2267, 2268
Organ - Freshman, Sophomore

Prerequisite: READ
Fee \$48

MUAP 1271, 1272, 2271, 2272
Piano - Freshman, Sophomore

Prerequisite: READ
Fee \$48

MUAP 1279, 1280, 2279, 2280
Harp - Freshman, Sophomore

Prerequisite: READ
Fee \$48

MUAP 1283, 1284, 2283, 2284
Voice - Freshman, Sophomore

Prerequisite: READ
Fee \$48

MUAP 1289, 1290, 2289, 2290
Bass Guitar - Freshman, Sophomore

Prerequisite: READ
Fee \$48

MUAP 1293, 1294, 2293, 2294
Elec Guitar - Freshman, Sophomore

Prerequisite: READ
Fee \$48

MUEN (Music - Major ensembles - Instrumental)

The maximum number of major instrumental ensemble credits a student can receive is 8.

MUEN 1123, 2123 **1 CR**

Baytown Symphony Orchestra

Prerequisite: READ

Open to all Lee College students. Required of instrumental majors when feasible. Study and performance of standard orchestral literature. One three-hour rehearsal plus one hour of section rehearsal and individual assistance per week. Admission by audition or instructor's consent. MUSI 1123 and 2123 may be repeated for credit.

Lecture Hrs = 3, Lab Hrs = 1, Fee \$5

MUEN 1125, 2125 **1 CR**

Concert Band

Prerequisite: READ

An instrumental class, organized for the study and performance of wind ensemble and concert band, literature, both historical and contemporary. Admission by audition or instructor's consent. MUSI 1125 and 2125 may be repeated for credit.

Lecture Hrs = 3, Lab Hrs = 1, Fee \$5

MUEN (Chamber Ensembles - Instrumental)

The maximum number of instrumental chamber ensemble credits a student can receive is 8.

MUEN 1133, 2133 **1 CR**
Woodwind Ensemble

Prerequisite: READ

Open to all Lee College students. Study of literature for small woodwind ensembles (4 or more students). Admission by audition or instructor's consent. MUSI 2133 may be repeated for credit.

Lecture Hrs = 1, Lab Hrs = 1, Fee \$5

MUEN 1134, 2134 **1 CR**
Brass Ensemble

Prerequisite: READ

Open to all Lee College students. Study of literature for small brass ensembles (4 or more students). Admission by audition or instructor's consent. MUSI 2134 may be repeated for credit.

Lecture Hrs = 1, Lab Hrs = 1, Fee \$5

MUEN 1135, 2135 **1 CR**
Jazz Ensemble

Prerequisite: READ

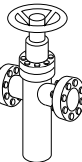
Practice and performance of various jazz idioms. Admission by audition or instructor's consent. MUSI 1135 and 2135 may be repeated for credit.

Lecture Hrs = 2, Lab Hrs = 2, Fee \$5



A prerequisite of READ, MATH, or WRITE indicates that the course has a skills prerequisite based on scores on local placement tests or their equivalent.

MUEN 1137 Guitar Ensemble <i>Prerequisite:</i> READ Study and performance of guitar ensemble literature (4 or more students). Admission by audition or instructor's consent. MUSI 1137 may be repeated for credit. Lecture Hrs = 1, Lab Hrs = 1, Fee \$5	1 CR	MUEN 1155 Swing Choir <i>Prerequisite:</i> READ The study of swing, popular and jazz vocal idioms in a small vocal chamber ensemble for the study and performance of contemporary literature. Lecture Hrs = 3, Lab Hrs = 0, Fee = \$5	1 CR	MUSI 1208 Introduction to Church Music <i>Prerequisite:</i> MUSI 1301 or permission of the instructor. READ An introductory course to the field of church music. Designed for the practicing musician with little or no background and for aspiring church musicians. A survey of the responsibilities of the church musician from administrative to practical applications. Open to all students at Lee College. Lecture Hrs = 3, Lab Hrs = 0	2 CR
MUEN 1138, 2138 Percussion Ensemble <i>Prerequisite:</i> READ Ensemble experience presenting balance between basic percussive techniques used individually and in sectional performance requirements, (4 or more students). Admission by audition or instructor's consent. MUSI 2138 may be repeated for credit. Lecture Hrs = 1, Lab Hrs = 1, Fee \$5	1 CR	MUSI (Academic) <i>The following courses, MUSI 1116, 1117, MUSI 1307, MUSI 1311, 1312, MUSI 2116, 2118, and MUSI 2311, 2312 are taught only one semester per academic year.</i>		MUSI 1209 Rehearsal Techniques for the Church Musician <i>Prerequisite:</i> MUSI 1301 or permission of the instructor. READ An introduction to the pedagogy of rehearsal techniques for the church musician dealing with children, youth and adult singing and handbell choirs. Open to all Lee College students. Lecture Hrs = 3, Lab Hrs = 0	2 CR
MUEN (Music - Major ensembles - Vocal) <i>The maximum number of vocal major ensemble credits a student can receive is 8.</i>		MUSI 1116, 1117 Ear Training and Sight Singing I and II <i>Prerequisite:</i> MUSI 1301 or consent of instructor. READ Designed to be taken concurrently with MUSI 1311, 1312. Open to other students with instructor's consent. Development of aural and sight-singing skills through study of scales, musical intervals, varying chord structures, and rhythms. One-hour tutorial laboratory per week. Lecture Hrs = 2, Lab Hrs = 1, Fee \$5	1 CR	MUSI (Music - Improvisation) <i>The maximum number of improvisation credits a student can receive is 4.</i>	
MUEN 1141, 2141 Lee College Concert Choir <i>Prerequisite:</i> READ Open to all students of Lee College. Study and performance of various types and styles of choral literature. Concerts given on and off campus each semester. Required of voice majors, all others admitted by audition or instructor's consent. MUSI 1141 and 2141 may be repeated for credit. Lecture Hrs = 3, Lab Hrs = 1, Fee \$5	1 CR	MUSI 1181, 1182, 2181, 2182 Class Piano (Music Major) <i>Prerequisite:</i> READ Beginning class instruction in piano for music majors. This course is designed to prepare students for the proficiency examination. Guidelines for this course and subsequent levels of the course may require that the student register instead for MUAP Applied lessons in piano. Additional information may be obtained from the instructor. Degree seeking students are required to enroll in piano study until proficiency requirements are met. Lecture Hrs = 0, Lab Hrs = 2, Fee \$5	1 CR	MUSI 1263 Jazz Improvisation <i>Prerequisite:</i> READ Class groups discuss topics in the area of jazz with special emphasis on its development and the contributions jazz has made to American culture. Improvisation on the students' instruments is an integral part of the course. MUSI 1263 may be repeated for credit. Lecture Hrs = 1, Lab Hrs = 2, Fee \$5	2 CR
MUEN 1142, 2142 Baytown Community Chorus <i>Prerequisite:</i> READ Open to all Lee College students. Study and performance of major choral literature. One three-hour class per week. MUSI 1142 and 2142 may be repeated for credit. Lecture Hrs = 3, Lab Hrs = 1, Fee \$5	1 CR	MUSI 1183 Beginning Voice Class <i>Prerequisite:</i> READ Open to all Lee College students. Study of correct vocal production: posture, diction, dynamics, phrasing and other information pertinent to the subject. Lecture Hrs = 0, Lab Hrs = 2, Fee \$5	1 CR	MUSI 1301 Fundamentals of Music <i>Prerequisite:</i> READ Open to all students at Lee College. Designed to prepare students for freshman study in music theory or to familiarize the non-music major with the meaning of musical notation and the harmonic, melodic, and rhythmic structure of music. Lecture Hrs = 3, Lab Hrs = 0	3 CR
MUEN (Chamber Ensembles - Vocal)		MUSI 1184 Intermediate Voice Class <i>Prerequisite:</i> READ Open to all Lee College students. Continued development of physical and musical aspects of singing at the intermediate level. Lecture Hrs = 0, Lab Hrs = 2, Fee \$5	1 CR	MUSI 1306 Music Appreciation <i>Prerequisite:</i> READ A music listening course designed for the non-music major. Students explore music through its basic elements, forms, styles, and major composers. Music majors should enroll in MUSI 1307. Lecture Hrs 3, Lab Hrs = 0	3 CR
MUEN 1152 Madrigal Singers <i>Prerequisite:</i> READ A vocal ensemble class organized for the study and performance of madrigal literature primarily from the 16th and 17th centuries. MUEN 1152 may be repeated for credit. Lecture Hrs = 3, Lab Hrs = 0, Fee = \$5	1 CR	MUSI 1192, 1193 Guitar Class <i>Prerequisite:</i> READ For beginning guitar students. Study of basic guitar techniques, chords and repertoire. Lecture Hrs = 0, Lab Hrs = 2, Fee \$5	1 CR	MUSI 1307 Survey of Music Literature <i>Prerequisite:</i> READ Open to all students and required of music majors and minors. It includes a study of various masterpieces in music, a study of the major composers, a study of stylistic characteristics of historical eras. Included also will be an	3 CR
MUEN 1153 Madrigal Singers <i>Prerequisite:</i> READ A continuation of MUEN 1152. The study of vocal chamber ensemble class organized for the study and performance of madrigal literature primarily from the 16th and 17th centuries. Lecture Hrs = 3, Lab Hrs = 0, Fee = \$5	1 CR				

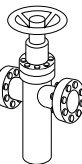


- introduction to score reading and music research techniques. Concert attendance is required. Performance/Lecture Series attendance is required.
Lecture Hrs = 3, Lab Hrs = 2, Fee \$5
- MUSI 1311, 1312 3 CR
Theory and Analysis I and II
Prerequisite for MUSI 1311: MUSI 1301 or satisfactory score on Theory Placement Test.
READ
Corequisite: MUSI 1116, 1117.
Open to all students with consent of instructor. One-hour tutorial laboratory per week.
Lecture Hrs = 3, Lab Hrs = 1, Fee \$5
- MUSI 2116, 2118 1 CR
Ear Training and Sight Singing III and IV
Prerequisite for MUSI 2116: MUSI 1117 or equivalent. Transfer students admitted by examination. **READ**
Corequisite: MUSI 2311, 2312. Open to all students with consent of instructor. One-hour tutorial laboratory per week.
Lecture Hrs = 2, Lab Hrs = 1, Fee \$5
- MUSI 2311, 2312 Ω 3 CR
Theory and Analysis III and IV
Prerequisite: MUSI 1312 or equivalent. Open to all students with consent of instructor. Transfer students admitted by examination. **READ**
Corequisite: MUSI 2116, 2118.
Study of 18th and 19th century harmonic practices, advanced harmonic techniques; complex choral vocabulary; secondary dominants; diminished sevenths; altered chords; distant modulations, and introduction to contrapuntal techniques.
Lecture Hrs = 3, Lab Hrs = 0, Fee \$5
- NDTE 1301 3 CR
Film Interpretation of Weldments
Prerequisite: **READ**
A study of radiographic film, including exploration of radiographic basics, interpretation, and causes and effects of discontinuities.
Lecture Hrs = 2, Lab Hrs = 2
- NDTE 1310 3 CR
Liquid Penetrant/Magnetic Particle Testing
Prerequisite: **READ**
A theoretical study and practical application of the non-destructive testing techniques of penetrant and magnetic particle testing required by quality assurance and test personnel including proper test technique, or combination of techniques and interpretation, evaluation of test results. Includes digital thickness measurement.
Lecture Hrs = 3, Lab Hrs = 3, Fee \$20
- OSHT 1313 3 CR
Accident Prevention, Inspection, and Investigation
Prerequisite: **READ**
Principles and practices providing a basis for understanding the nature of occupational hazard recognition, accident prevention, loss reduction, inspection techniques, and accident investigation analysis.
Lecture Hrs = 3, Lab Hrs = 0
- OSHT 2309 3 CR
Safety Program Management
Prerequisite: OSHT 1313. **READ**
A study of the Occupational Safety and Health Act, cost analysis of accidents, records and record keeping, reporting, job safety analysis, and fundamentals of safety training. An introduction to the Occupational Safety and Health Administration's (OSHA) General Industry Standards and an overview of the more frequently cited violations in recent years.
Lecture Hrs = 3, Lab Hrs = 0
- PFPB 1305 3 CR
Basic Blueprint Reading for Pipefitter and Plumber
Prerequisite: PFPB 2347. **READ**
An introduction to reading and interpreting working drawings including symbols and abbreviations and the use of sketching techniques to create isometric and multiview drawings of piping and piping components.
Lecture Hrs = 3, Lab Hrs = 0
- PFPB 1408 4 CR
Introduction to Pipefitting
Prerequisite: **READ**
An introduction to the craft including mathematical operations applicable to pipefitting, hand tools, safety practices, and material communication.
Lecture Hrs = 3, Lab Hrs = 3, Fee \$6
- PFPB 1449 4 CR
Field Measuring, Sketching and Layout
Prerequisite: PFPB 2338. **READ**
An introduction to the use of transit and level and field dimensioning and sketching including math applications.
Lecture Hrs = 3, Lab Hrs = 3, Fee \$6
- PFPB 2338 3 CR
Blueprint Reading for Pipefitters
Prerequisite: PFPB 1305. **READ**
An advanced course in blueprint reading and sketching for pipefitters including piping off-sets and dimensioning.
Lecture Hrs = 3, Lab Hrs = 0
- PFPB 2343 3 CR
Pipe Practices
Prerequisite: PFPB 2408. **READ**
An advanced course in testing; steam traps; valve maintenance; and the identification, storage, and handling of in-line specialties.
Lecture Hrs = 2, Lab Hrs = 2, Fee \$6
- PFPB 2347 3 CR
Plumbing and Pipefitting Equipment and Safety
Prerequisite: **READ**.
Instruction in the safe use of construction equipment used in the process of the plumbing and pipefitting trades.
Lecture Hrs = 3, Lab Hrs = 0, Fee \$6
- PFPB 2401 4 CR
Pipe Fabrication and Installation I
Prerequisite: PFPB 1408. **READ**
Skill development in pipe fabrication and pipe supports.
Lecture Hrs = 3, Lab Hrs = 3, Fee \$6
- PFPB 2408 4 CR
Piping Standards and Materials
Prerequisite: PFPB 2401. **READ**
A study of piping standards and specifications, the identification and use of various materials, and material take-offs.
Lecture Hrs = 3, Lab Hrs = 3, Fee \$6
- PFPB 2441 4 CR
Pipe Fabrication and Installation II
Prerequisite: PFPB 2401. **READ**
In-depth instruction in advanced pipe fabrication procedures including pipe template development.
Lecture Hrs = 3, Lab Hrs = 3, Fee \$6
- PHED 1109 1 CR
Cardio Fitness
Prerequisite: **READ**
A course designed to emphasize the use of various equipment for improving cardiovascular fitness and reducing resting heart rates. Treadmills, climbers, bicycles, elliptic machines, and gymnasium walking will be used in program design. Program design will focus on individual goals.
Lecture Hrs = 1, Lab Hrs = 2, Fee \$8
- PHED 1110 1 CR
Exercise Endurance and Power
Prerequisite: **READ**
A course designed to emphasize the use of free weights and machine weights for development of muscular strength and endurance. Program design will focus on individual goals.
Lecture Hrs = 1, Lab Hrs = 2, Fee \$8
- PHED 1111 1 CR
Circuit Training
Prerequisite: **READ**
A course designed to emphasize the alternating of various exercise stations. Consideration of the selection of exercises will be based on individual goals.
Lecture Hrs = 1, Lab Hrs = 2, Fee \$8

A prerequisite of READ, MATH, or WRITE indicates that the course has a skills prerequisite based on scores on local placement tests or their equivalent.

PHED 1131 Aquatic Fitness <i>Prerequisite:</i> READ A course designed to emphasize the use of various forms of exercise with and without props in the water to develop fitness. Lecture Hrs = 1, Lab Hrs = 2, Fee \$8	1 CR	PHED 1140 Hatha Yoga and Balance <i>Prerequisite:</i> READ A course designed to learn the importance and benefits of yoga. Learning skills will include postures, breathing and relaxation techniques. An emphasis will be on the component of balance. Lecture Hrs = 1, Lab Hrs = 2, Fee \$8	1 CR	PHED 2134 Aquatic Flexibility Training <i>Prerequisite:</i> READ A course designed to include all components of fitness with emphasis in range of motion to improve flexibility. Lecture Hrs = 1, Lab Hrs = 2, Fee \$8	1 CR
PHED 1132 Aquatic Cardio Training <i>Prerequisite:</i> READ A course designed to emphasize cardiovascular training in the water. Emphasis will be on reducing resting heart rates. Lecture Hrs = 1, Lab Hrs = 2, Fee \$8	1 CR	PHED 2105 Exercise/Weight Management Fitness <i>Prerequisite:</i> READ A course designed to monitor weight changes through various fitness programs. These fitness programs are designed for weight loss or weight gain. Lecture Hrs = 1, Lab Hrs = 2, Fee \$8	1 CR	PHED 2135 Aquatic Cross Training <i>Prerequisite:</i> READ A course designed to vary water exercise programs that emphasize different training modes of fitness for cross training benefit. Lecture Hrs = 1, Lab Hrs = 2, Fee \$8	1 CR
PHED 1134 Hatha Yoga and Breathing <i>Prerequisite:</i> READ A course designed to emphasize the techniques of Hatha yoga postures with an emphasis on proper breathing techniques, which are termed as pranayamas. Lecture Hrs = 1, Lab Hrs = 2, Fee \$8	1 CR	PHED 2106 Cross Training Fitness <i>Prerequisite:</i> READ A course designed to vary exercise programs that emphasize different training modes of fitness for cross training benefit. Program design will use cardiovascular equipment in a sequence manner. Lecture Hrs = 1, Lab Hrs = 2, Fee \$8	1 CR	PHED 2136 Aquatic Personal Training <i>Prerequisite:</i> READ A course emphasizing individual goals of fitness which are incorporated in a water exercise program. Lecture Hrs = 1, Lab Hrs = 2, Fee \$8	1 CR
PHED 1135 Hatha Yoga and Postures <i>Prerequisite:</i> READ A course designed to learn the importance and benefits of yoga. Learning skills will include breathing and relaxation techniques with an emphasis on postures. Lecture Hrs = 1, Lab Hrs = 2, Fee \$8	1 CR	PHED 2107 Personal Fitness <i>Prerequisite:</i> READ A course designed to emphasize personal goals of fitness which is not limited to weight management, cardiovascular improvement, flexibility and muscular strength and endurance. Lecture Hrs = 1, Lab Hrs = 2, Fee \$8	1 CR	PHED 2139 Hatha Yoga and Advance Techniques <i>Prerequisite:</i> READ A course designed to emphasize the importance and benefits of yoga. Skills will include advance postures with breathing and relaxation techniques. Lecture Hrs = 1, Lab Hrs = 2, Fee \$8	1 CR
PHED 1136 Hatha Yoga and Nutrition <i>Prerequisite:</i> READ A course designed to emphasize the techniques of Hatha yoga postures with an emphasis on learning principles of nutrition as a part of yoga practice. Lecture Hrs = 1, Lab Hrs = 2, Fee \$8	1 CR	PHED 2108 Elite Fitness <i>Prerequisite:</i> READ A course designed to use various fitness programs with increased intensity to promote training at a high level. Lecture Hrs = 1, Lab Hrs = 2, Fee \$8	1 CR	PHED 2140 Hatha Yoga and Personal Health <i>Prerequisite:</i> READ A course designed to emphasize the importance and benefits of yoga. Personal health goals will be incorporated in course design. Lecture Hrs = 1, Lab Hrs = 2, Fee \$8	1 CR
PHED 1137 Hatha Yoga and Meditation <i>Prerequisite:</i> READ A course designed to learn the importance and benefits of yoga. Learning skills will include postures, breathing and relaxation techniques. Emphasis will be made on reflection and contemplation. Lecture Hrs = 1, Lab Hrs = 2, Fee \$8	1 CR	PHED 2132 Aquatic Weight Management <i>Prerequisite:</i> READ A course designed to emphasize various uses of exercise routines in the water with attention given to nutritional guidelines for weight reduction or management. Lecture Hrs = 1, Lab Hrs = 2, Fee \$8	1 CR	PHIL 1301 Ω Introduction to Philosophy <i>Prerequisite:</i> READ, WRITE An introduction to the basic issues in philosophy, including: reality, justice, morality, freedom and responsibility, and the good life. We approach these issues through the original writings of selected classical, modern, and contemporary philosophers. Lecture Hrs = 3, Lab Hrs = 0	3 CR
PHED 1138 Hatha Yoga and Relaxation <i>Prerequisite:</i> READ A course designed to learn the importance and benefits of yoga. Learning skills will include postures, breathing and an emphasis on relaxation techniques. Lecture Hrs = 1, Lab Hrs = 2, Fee \$8	1 CR	PHED 2133 Aquatic Endurance Training <i>Prerequisite:</i> READ A course designed to emphasize the endurance component of fitness. Duration of exercise will be emphasized. Lecture Hrs = 1, Lab Hrs = 2, Fee \$8	1 CR	PHIL 2306 Introduction to Ethics <i>Prerequisite:</i> PHIL 1301 or permission of the instructor. READ, WRITE Introduction to Ethics is an intermediate level philosophy course. The course covers moral theory (what's right); and ethical theory (what's good). The course also covers specific issues such as: religion, spirituality, and moral purpose; environmental ethics; feminist ethics; and criticisms of the use of science and technology. Lecture Hrs = 3, Lab Hrs = 0	3 CR
PHED 1139 Hatha Yoga and Flexibility <i>Prerequisite:</i> READ A course designed to learn the importance and benefits of yoga. Learning skills will include postures, breathing and relaxation techniques. An emphasis will be on the component of flexibility. Lecture Hrs = 1, Lab Hrs = 2, Fee \$8	1 CR				

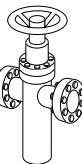
Ω Indicates courses taught with optional honors contracts.
Σ Indicates honors courses.
See page 20 for additional information on the Honors Program.



PHYS 1401 Ω College Physics I: Mechanics and Heat <i>Prerequisite:</i> MATH 1414. <i>READ</i> <i>Physics 1401 and 1402 are designed to meet the needs of students who need one year of algebra/trigonometry - based physics.</i> An introduction to the concepts and problems of classical mechanics and heat and thermodynamics, enriched with modern physics concepts. Lecture Hrs = 3, Lab Hrs = 3, Fee \$20	4 CR	physical principles by means of computer numerical methods; primarily for science, mathematics, and engineering students. Lecture Hrs = 3, Lab Hrs = 3, Fee \$20	POFI 2331 Desktop Publishing for the Office <i>Prerequisite:</i> Keyboarding and word processing 30-35 wpm. <i>READ</i> In-depth coverage of desktop publishing terminology, text editing, and use of design principles to create publishing material using word processing desktop publishing features. Emphasis on layout techniques, graphics, and multiple page displays. Lecture Hrs = 3, Lab Hrs = 1, Fee \$10	3 CR
PHYS 1402 Ω College Physics II: Sound, Electricity, Magnetism, Light, and Modern Physics <i>Prerequisites:</i> PHYS 1401 or consent of instructor. <i>READ, MATH</i> <i>Physics 1401 and 1402 are designed to meet the needs of students who need one year of algebra/trigonometry - based physics.</i> Completes one year of physics. Includes an introduction to the concepts and problems of wave motion, sound, electricity and magnetism, light, and modern physics. Lecture Hrs = 3, Lab Hrs = 3, Fee \$20	4 CR	PHYS 2426 Ω Electricity, Optics, and Waves <i>Prerequisite:</i> PHYS 2425 or consent of instructor. <i>READ, MATH.</i> Principles of electricity and magnetism, geometrical and physical optics, wave motion and sound, and introductory quantum theory; primarily for physical science, mathematics, and engineering majors. Lecture Hrs = 3, Lab Hrs = 3, Fee \$20	4 CR	POFT 1106 Diversity in the Workplace <i>Prerequisite:</i> <i>READ</i> Overview of workplace diversity to include gender, cultural background, age, and other factors. Topics include behavioral expectations and standards in the business environment. Lecture Hrs = 1, Lab Hrs = 0
PHYS 1405 General Physics I <i>Prerequisite:</i> <i>READ, MATH</i> An elementary course in fundamental concepts of mechanics, heat, gravitation and sound with emphasis on the scientific approach to solving problems. For elementary education, liberal arts, and other non-science majors and students. Lecture Hrs = 3, Lab Hrs = 3, Fee \$20	4 CR	POFI 1341 Computer Applications II <i>Prerequisite:</i> POFI 1401 or equivalent, <i>READ</i> Continued study of current computer terminology and technology. Advanced skill development in computer hardware, software applications, and procedures. Advanced functions of word processing, spreadsheets, database documents, and presentation software are emphasized. Lecture Hrs = 3, Lab Hrs = 1, Fee \$10	3 CR	POFT 1127 Introduction to Keyboarding <i>Prerequisite:</i> <i>READ</i> Skill development in keyboarding with emphasis on alphabet, number, and symbol keys by touch. Skills can be applied to computers, typewriters, and other equipment with keyboards. Lecture Hrs = 1, Lab Hrs = 1, Fee \$10
PHYS 1407 General Physics II <i>Prerequisite:</i> <i>READ, MATH</i> An elementary course in fundamental concepts of electricity, magnetism, light, and modern physics with emphasis on the scientific approach to solving problems. For elementary education, liberal arts, and other non-science majors and students. Lecture Hrs = 3, Lab Hrs = 3, Fee \$20	4 CR	POFI 1349 Spreadsheets <i>Prerequisite:</i> POFI 1401 or equivalent, POFT 1321, or consent of instructor, <i>READ</i> Skill development in the use of a spreadsheet software package. Topics include worksheet creation and manipulation functions, templates, macro programming database functions, data-table features, and graphics. Further enhancement of previously learned spreadsheet skills. Utilize new technology for problem solving of business applications. Lecture Hrs = 3, Lab Hrs = 1, Fee \$10	3 CR	POFT 1120 Job Search Skills <i>Prerequisite:</i> <i>READ</i> <i>Corequisite:</i> Any 9 hours in Professional Office Technology courses and POFT 2301 A course to provide students with the necessary skills to seek and obtain employment in business and industry. Lecture Hrs = 1, Lab Hrs = 0
PHYS 1415 PHYSICAL SCIENCE <i>Prerequisite:</i> MATH 330. <i>Pre-Corequisite:</i> <i>READ 301 or equivalent.</i> This course emphasizes the fundamental principles in physics, chemistry, geology, astronomy, meteorology, and environmental science. Emphasis is placed on the history of ideas and interrelationships among these various fields of science. Lecture Hrs = 3, Lab Hrs = 3, Fee \$20	4 CR	POFI 1401 Computer Applications I <i>Prerequisite:</i> Keyboarding 30-35 wpm. <i>READ</i> Overview of computer applications including current terminology and technology. Introduction to computer hardware, software applications, and procedures. This course provides a brief introduction to word processing, spreadsheet, presentation, and database terminology and concepts. Lecture Hrs = 3, Lab Hrs = 3, Fee \$10	4 CR	POFT 1302 Business Communications I <i>Prerequisite:</i> <i>READ</i> Introduction to a practical application of basic language usage skills with emphasis on fundamentals of writing and editing for business. Students develop competency in grammar, capitalization, punctuation, expression of numbers, business vocabulary, business spelling, sentence construction, and proofreading in practical business applications. Lecture Hrs = 3, Lab Hrs = 0
PHYS 2425 Ω Mechanics and Heat <i>Prerequisites:</i> MATH 2413. <i>READ</i> Principles of mechanics, thermodynamics, kinetic theory of gases, and mechanics of solids and fluids; also engineering applications of	4 CR	POFI 2301 Word Processing <i>Prerequisite:</i> Keyboarding 30-35 wpm. <i>READ</i> Instruction in the various aspects of a word processing software package. Emphasis on the use of text editing features to produce business documents that are mailable. Lecture Hrs = 3, Lab Hrs = 1, Fee \$10	3 CR	POFT 1309 Administrative Office Procedures I <i>Prerequisite:</i> <i>READ</i> Study of current office procedures including telephone skills, time management, travel and meeting arrangements, mail processing, and other duties and responsibilities in an office environment. Explore telecommunications and computer technology. Lecture Hrs = 3, Lab Hrs = 0

A prerequisite of READ, MATH, or WRITE indicates that the course has a skills prerequisite based on scores on local placement tests or their equivalent.

POFT 1321 Business Math <i>Prerequisite:</i> READ Instruction in the fundamentals of business mathematics including analytical and problem-solving skills for critical thinking in business applications. Students learn 10-key by touch using electronic calculators and computers. Lecture Hrs = 3, Lab Hrs = 0	3 CR	POFT 2301 Document Formatting and Skillbuilding <i>Prerequisite:</i> Keyboarding 30-35 wpm. READ A continuation of keyboarding skills in document formatting, speed, and accuracy. Emphasis on proofreading, editing, and following instructions, and keying documents from various copy. Lecture Hrs = 3, Lab Hrs = 1, Fee \$10	3 CR	PSYC 2301 Introduction to Psychology <i>Prerequisite:</i> READ, WRITE A survey of the fields of general psychology; the biological and psychological basis of human behavior, intelligence, motivation, emotion, learning, personality, memory, and psychopathology. Lecture Hrs = 3, Lab Hrs = 0	3 CR
POFT 1329 Keyboarding and Document Formatting <i>Prerequisite:</i> READ Skill development in the operation of the keyboard by touch applying proper keyboarding techniques. Emphasis on development of acceptable speed and accuracy levels and formatting basic documents. Lecture Hrs = 3, Lab Hrs = 1, Fee \$10	3 CR	POFT 2312 Business Communications II <i>Prerequisite:</i> POFT 1302. READ Skill development in practical applications which emphasize the improvement of writing skills necessary for effective business communications. Emphasis is given to developing business letters, reports, memos, and employment communications; to using appropriate tone; to improving writing, speaking, and listening skills; and to preparing attractive business documents. Lecture Hrs = 3, Lab Hrs = 0	3 CR	PSYC 2308 Ω Child Development <i>Prerequisite:</i> PSYC 2301 READ, WRITE A study of the physical, mental, and emotional development of the individual from birth through adolescence. Emphasis on the nature of individual differences and the correct integration of behavior patterns into a socially desirable and well-adjusted personality. Lecture Hrs = 3, Lab Hrs = 0	3 CR
POFT 1349 Administrative Office Procedures II <i>Prerequisite:</i> POFT 1309, READ Advanced office application with special emphasis on decision making, goal setting, management theories, and critical thinking. Utilize new technology for problem solving of business applications. Lecture Hrs = 3, Lab Hrs = 0	3 CR	POFT 2331 Administrative Systems <i>Prerequisite:</i> Completion of Office Assistant and Administrative Assistant certificates. READ Experience in project management and office procedures utilizing integration of previously learned skills. Lecture Hrs = 3, Lab Hrs = 0, Fee \$10	3 CR	PSYC 2314 Ω Life Span Growth and Development <i>Prerequisite:</i> PSYC 2301, READ, WRITE The study of the relationship of the physical, emotional, social, and mental factors of growth and development throughout the life span from birth to death. Lecture Hrs = 3, Lab Hrs = 0	3 CR
POFT 1364 Practicum (or Field Experience) Administrative Assistant/Secretarial Science <i>Prerequisite:</i> READ Practical general training and experiences in the workplace. The college with the employer develops and documents an individualized plan for the student. The plan relates the workplace training and experiences to the student's general and technical course of study. The guided external experiences may be for pay or no pay. This course may be repeated if topics and learning outcomes vary. Lecture Hrs = 1, Lab Hrs = 0, External Hrs = 20	3 CR	POFT 2333 Advanced Document Formatting & Skillbuilding <i>Prerequisite:</i> POFT 2301, READ Study of advanced concepts in a variety of office-simulated correspondence activities with emphasis on organization, prioritizing, decision making, composition, placement, accuracy, and speed development. Lecture Hrs = 3, Lab Hrs = 1, Fee \$10	3 CR	PSYC 2316 Ω Psychology of Personality <i>Prerequisite:</i> PSYC 2301, READ, WRITE Personality psychology deals with the struggle to understand human nature and its determinants. The complexity of human nature demands investigation of a number of points of view. This course will expose students to the major personality theories (e.g., psychodynamic, humanistic, existential, cognitive, behavioral) and their underlying philosophical assumptions. Lecture Hrs = 3, Lab Hrs = 0	3 CR
POFT 1365 Practicum (or Field Experience) Administrative Assistant/Secretarial Science <i>Prerequisite:</i> READ Practical general training and experiences in the workplace. The college with the employer develops and documents an individualized plan for the student. The plan relates the workplace training and experiences to the student's general and technical course of study. The guided external experiences may be for pay or no pay. This course may be repeated if topics and learning outcomes vary. Lecture Hrs = 1, Lab Hrs = 0, External Hrs = 20	3 CR	POFT 2364 Practicum (or Field Experience) Administrative Assistant/Secretarial Science <i>Prerequisite:</i> READ Practical general training and experiences in the workplace. The college with the employer develops and documents an individualized plan for the student. The plan relates the workplace training and experiences to the student's general and technical course of study. The guided external experiences may be for pay or no pay. This course may be repeated if topics and learning outcomes vary. Lecture Hrs = 1, Lab Hrs = 0, External Hrs = 20	3 CR	PSYC 2317 Statistical Methods in Psychology <i>Prerequisite:</i> PSYC 2301, READ, WRITE, MATH A course designed to provide a background in statistics for students in psychology and the social sciences. Includes elementary probability theory, measures of central tendency, variability, correlation and regression, the normal curve of probability, and statistical inference. Lecture Hrs = 3, Lab Hrs = 0	3 CR
				PSYC 2318 Juvenile Delinquency <i>Prerequisite:</i> PSYC 2301. READ, WRITE Nature and extent of delinquency; comparison of explanatory models and theories; evaluation of prevention, control, and treatment programs. Same as SOCI 2339 Lecture Hrs = 3, Lab Hrs = 0	3 CR



Ω Indicates courses taught with optional honors contracts.
Σ Indicates honors courses.
See page 20 for additional information on the Honors Program.

PTAC 1302	3 CR	PTAC 2346	3 CR	READ 300 (formerly 0300)	0 CR
Introduction to Process Technology		Process Troubleshooting		Beginning College Reading Skills	
Prerequisite: READ		Prerequisite: PTAC 2420. READ		Prerequisite: READ	
Introduction to chemical and refinery plant operations. Topics include process technician duties, responsibilities and expectations; plant organizations; plant process and utility systems; and the physical and mental requirements of the process technician.		Instruction in the different types of troubleshooting techniques, procedures, and methods used to solve process problems. Topics include application of data collection and analysis, cause-effect relationships, and reasoning.		A course designed for individuals whose reading development has been delayed. Emphasis is on vocabulary development, interpretation, and evaluation of basic sentence and paragraph patterns, articulative training, and concept development necessary for effective reading. It is required of all students whose Computerized Placement Test score is below 46.	
Lecture Hrs = 3, Lab Hrs = 0		Lecture Hrs = 3, Lab Hrs = 0		Lecture Hrs = 3, Lab Hrs = 0, Fee \$4	
PTAC 1308	3 CR	PTAC 2410	4 CR	READ 301 (formerly 0301)	0 CR
Safety, Health, and Environment I		Process Technology I - Equipment		Intermediate College Reading Skills	
Prerequisite: READ		Prerequisite: READ		Prerequisite: READ	
Development of knowledge and skills to reinforce the attitudes and behaviors required for safe and environmentally sound work habits. Emphasis on safety, health, and environmental issues in the performance of all job tasks and regulatory compliance issues.		Introduction in the use of common process equipment.		Improvement of reading habits and skills. Includes a study of the theory and mechanics of good reading. Emphasis is on developing vocabulary and improving comprehension through computer assisted instruction and classroom discussion. It is required of all students whose Computerized Placement Test score is between 46-61.	
Lecture Hrs = 3, Lab Hrs = 0		Lecture Hrs = 3, Lab Hrs = 3, Fee \$6		Lecture Hrs = 3, Lab Hrs = 0, Fee \$4	
PTAC 1352	3 CR	PTAC 2420	4 CR	READ 302 (formerly 0302)	0 CR
Process Instrumentation I		Process Technology II - Systems		Advanced College Reading Skills	
Prerequisite: PTAC 2410. READ		Prerequisite: PTAC 2410. READ		Prerequisite: READ	
Study of the instruments and instrument systems used in the chemical processing industry including terminology, primary variables, symbology, control loops, and basic troubleshooting.		Study of the interrelation of process equipment and process systems including related scientific principles.		This course is designed to improve reading effectiveness at the adult level. Emphasis is placed on skills relating to vocabulary, comprehension, and reading speed. It is suggested for college students, business and professional people, and other adults who recognize a need for greater efficiency in reading and required for those students whose Computerized Placement Test score is between 62-81	
Lecture Hrs = 3, Lab Hrs = 0		Lecture Hrs = 3, Lab Hrs = 3, Fee \$6		Lecture Hrs = 3, Lab Hrs = 0, Fee \$4	
PTAC 2314	3 CR	PTAC 2438	4 CR	READ 101 (formerly 0101)	0 CR
Quality		Process Technology III - Operations		TASP Reading Skills Review	
Prerequisite: PTAC 2420. READ		Prerequisite: PTAC 2420. READ		Prerequisite: Permission of instructor.	
Study of the background and application of quality concepts. Topics include team skills, quality tools, and economics and continuous improvement.		This course combines systems into operational processes with emphasis on operations under various conditions. Topics include typical duties of an operator.		READ	
Lecture Hrs = 3, Lab Hrs = 0		Lecture Hrs = 3, Lab Hrs = 3, Fee \$6		A one-hour, individualized course designed for students who have not passed the reading portion of the TASP exam and have a Computerized Placement Test score higher than 82.	
				Lecture Hrs = 0, Lab Hrs = 1	
				RNSG 1146	1 CR
				Legal and Ethical issues for Nurses	
				Prerequisite: READ	
				Corequisite: RNSG 2535.	
				Study of the laws and regulations related to the provision of safe and effective professional nursing care; attention given to the development of a framework for addressing ethical issues; and topics to include confidentiality, the Nursing Practice Act, professional boundaries, ethics and health care legislation.	
				Lecture Hrs = 1, Lab Hrs = 0	
				RNSG 1161	1 CR
				Clinical	
				Prerequisite: RNSG 1301 (for Generic Students only), ENGL 1301, ENGL 1302, acceptance into the nursing program, competency in drug calculations. READ.	
				Corequisite: BIOL 2402 and ITSC 1309 (for Generic Students only), RNSG 1513, (the student must pass both RNSG 1513, RNSG 1205, and RNSG 1161 concurrently in order to progress to the next nursing course).	
				A basic, intermediate, or advanced type of health professions work-based instruction that helps students synthesize new knowledge, ap-	



ply previous knowledge, or gain experience managing the workflow. Practical experience is simultaneously related to theory. Close and/or direct supervision is provided by the clinical professional (faculty or preceptor), generally in a clinical setting. Clinical education is an unpaid learning experience.
Lecture Hrs = 0, Lab Hrs = 0, External Lab = 6, Insurance \$18

RNSG 1162 1 CR
Clinical

Prerequisite: Humanities/Fine Arts, Oral Communications, competency in drug calculation. **READ**

Corequisite: RNSG 1163 (the student must pass both RNSG 1162 and RNSG 1251 concurrently in order to be eligible to enroll in the next nursing course).

A basic, intermediate, or advanced type of health professions work-based instruction that helps students synthesize new knowledge, apply previous knowledge, or gain experience managing the workflow. Practical experience is simultaneously related to theory. Close and/or direct supervision is provided by the clinical professional (faculty or preceptor), generally in a clinical setting. Clinical education is an unpaid learning experience.
Lecture Hrs = 0, Lab Hrs = 0, External Lab = 6, Insurance \$18

RNSG 1163 1 CR
Clinical

Prerequisite: RNSG 2504, PSYC 2314, Humanities/Fine Arts, Oral Communications, competency in drug calculation. **READ**
Corequisite: RNSG 1162 (the student must pass both RNSG 2213 and RNSG 1163 concurrently in order to be eligible to enroll in the next nursing course).

A basic, intermediate, or advanced type of health professions work-based instruction that helps students synthesize new knowledge, apply previous knowledge, or gain experience managing the workflow. Practical experience is simultaneously related to theory. Close and/or direct supervision is provided by the clinical professional (faculty or preceptor), generally in a clinical setting. Clinical education is an unpaid learning experience.
Lecture Hrs = 0, Lab Hrs = 0, External Lab = 6, Insurance \$18

RNSG 1205 2 CR
Nursing Skills I

Prerequisite: BIOL 2401, RNSG 1301 (for Generic Students only), ENGL 1301, ENGL 1302, acceptance into the nursing program, competency in drug calculations. **READ**
Corequisite: RNSG 1513.

Study of the concepts and principles essential for demonstrating competence in the performance of nursing procedures. Topics include knowledge, judgement, skills, and professional values within a legal/ethical framework.
Lecture Hrs = 1, Lab Hrs = 4, Fee \$10

RNSG 1251 2 CR
Care of the Childbearing Family

Prerequisite: RNSG 2504, RNSG 2207 (for Transitional students), Humanities/Fine Arts, PSYC 2314, Oral Communications, competency in drug calculations. **READ**

Corequisite: RNSG 1162 (the student must pass both RNSG 1251 and RNSG 1162 concurrently in order to be eligible to enroll in the next nursing course).

Study of concepts related to the provision of nursing care for childbearing families. Topics may include selected complications. Topics include knowledge, judgement, skills, and professional values within a legal/ethical framework.

Lecture Hrs = 2, Lab Hrs = 0, NLN Testing Fee \$25

RNSG 1301 3 CR
Pharmacology

Prerequisite: Proficiency in math as demonstrated by (1) passing math portion on TASP; or (2) achieving designated score on Lee College Math Placement Test; or (3) minimum of "c" in MATH 110 course or proficiency test; or (4) successfully pass a 3 hour college credit math course within the past 5 years. **READ**

Pre-Corequisite: MATH 110.
Corequisite: BIOL 2401.

Introduction to the science of pharmacology with emphasis on the actions, interactions, adverse effects, and nursing implications of each drug classification. Topics include the roles and responsibilities of the nurse in safe administration of medications within a legal/ethical framework. In addition, the course focuses on the basic concepts and terminology used in the study of pharmacology. Pharmacokinetics for major drug classifications is emphasized as well as drug administration routes.
Lecture Hrs = 3, Lab Hrs = 0

RNSG 1361 3 CR
Clinical

Prerequisite: RNSG 1513, competency in drug calculations. **READ**.

Corequisite: RNSG 2504 (the student must pass both RNSG 2504 and RNSG 1361 in the same semester in order to be eligible to enroll in the next level nursing courses).

A basic, intermediate, or advanced type of health professions work-based instruction that helps students synthesize new knowledge, apply previous knowledge, or gain experience managing the workflow. Practical experience is simultaneously related to theory. Close and/or direct supervision is provided by the clinical professional (faculty or preceptor), generally in a clinical setting. Clinical education is an unpaid learning experience.
Lecture Hrs = 0, Lab Hrs = 0, External Lab = 15, Insurance \$18

RNSG 1513 5 CR
Foundations for Nursing Practice

Prerequisite: BIOL 2401, RNSG 1301 (for Generic Students only), ENGL 1301, ENGL 1302, acceptance into the nursing program, competency in drug calculations. **READ**.

Corequisite: BIOL 2402 and ITSC 1309 (for Generic Students only), RNSG 1205, RNSG 1161.

Introduction to the role of the associate degree nurse as a provider of care, coordinator of care, and member of a profession. Topics include knowledge, judgment, skills and professional values within a legal/ethical framework.
Lecture Hrs = 5, Lab Hrs = 0, NLN Testing Fee \$50

RNSG 2207 2 CR
Transition to Nursing Practice

Prerequisite: For Summer admission: BIOL 2402, BIOL 2421, ITSC 1309, ENGL 1302, PSYC 2314, a current license in good standing to practice as a Licensed Vocational Nurse in the State of Texas, meet program guidelines for admission under the Texas Articulation Model, direct patient care, current employment or current VN graduate or acceptable score on the ACE I-PN-RN Exam. **READ**

For Spring admission: BIOL 2402, BIOL 2421, ITSC 1309, ENGL 1302, a current license in good standing to practice as a Licensed Vocational Nurse in the State of Texas, meet program guidelines for admission under the Texas Articulation Model, direct patient care, current employment or current VN graduate or acceptable score on the ACE I-PN-RN Exam. **READ**

Introduction to selected concepts related to the role of the associate degree nurse as a provider of care, coordinator of care, and member of the profession. Review of trends and issues impacting nursing and health care today and in the future. Topics include knowledge, judgment, skill, and professional values within a legal/ethical framework.
Lecture Hrs = 2, Lab Hrs = 0

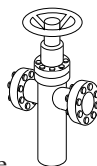
RNSG 2213 2 CR
Mental Health Nursing

Prerequisite: Humanities/Fine Arts, PSYC 2314, Oral Communications, competency in drug calculation. **READ**

Corequisite: RNSG 1251. Student must pass RNSG 2213 and RNSG 1163 concurrently to progress.

Principles and concepts of mental health, psychopathology, and treatment modalities related to the nursing care of clients and their families. In addition, the student will utilize the nursing process to identify common disruptions in growth and developmental patterns as they relate to the client's optimal levels of health.
Lecture Hrs = 2, Lab Hrs = 0, NLN Testing Fee \$25

A prerequisite of READ, MATH, or WRITE indicates that the course has a skills prerequisite based on scores on local placement tests or their equivalent.





RNSG 2362 Ω 3 CR
Clinical

Prerequisite: RNSG 1251. *READ*
Corequisite: RNSG 2535. Student must pass RNSG 2362 and RNSG 2535 concurrently to progress.

A basic, intermediate, or advanced type of health professions work-based instruction that helps students synthesize new knowledge, apply previous knowledge, or gain experience managing the workflow. Practical experience is simultaneously related to theory. Close and/or direct supervision is provided by the clinical professional (faculty or preceptor), generally in a clinical setting. Clinical education is an unpaid learning experience.

Lecture Hrs = 0, Lab Hrs = 0, External Lab = 15, Insurance \$18

RNSG 2504 Ω 5 CR
Care of the Client with Common Health Care Needs

Prerequisite: RNSG 1513, competency in drug calculations. *READ*
Corequisite: BIOL 2421 (for Generic Students only), RNSG 1361 (the student must pass both RNSG 2504 and RNSG 1361 in the same semester in order to be eligible to enroll in the next level nursing courses).

Application of a systematic problem-solving process and critical-thinking skills to provide nursing care to diverse clients/families across the life span with common health care needs. Opportunities for collaboration with members of the multidisciplinary health care team. Content includes applicable competencies in knowledge, judgement, skills, and professional values within a legal/ethical framework. In addition, this course strengthens theory and practice as the student cares for clients/families in a more independent provider role. Chronic disruptions of body systems are reinforced while caring for clients from all age groups. The role of manager and professional are developed as the student functions as a health team member within the health care delivery system.

Lecture Hrs = 5, Lab Hrs = 0, NLN Testing Fee \$50

RNSG 2535 5 CR
Integrated Client Care Management

Prerequisite: RNSG 1251. *READ*
Corequisite: RNSG 1146, RNSG 2362. Student must pass RNSG 2535 and RNSG 2362 concurrently to progress.

Application of client assessment skills, critical thinking, and independent nursing interventions to care for diverse clients/families throughout the life span whose health care needs may be difficult to predict. Emphasis on collaborative clinical decision-making, nursing leadership skills, and client management. Topics include the significance of professional development, trends in nursing and health care, and applicable knowledge, judgment, skills, and professional values within a legal/ethical framework.

Lecture Hrs = 5, Lab Hrs = 0, NLN Testing Fee \$50

SCIT 1414 4 CR
Applied General Chemistry I

Prerequisite: *READ*
Study of the general concepts of chemistry with an emphasis on industrial applications.

Lecture Hrs = 3, Lab Hrs = 3, Fee \$6

SGNL 1401 4 CR
Beginning American Sign Language

Prerequisite: *READ*
Fingerspelling and basic training skills in sign language with an emphasis on expressive communication. For students with little or no previous experience in sign language.

Lecture Hrs = 3, Lab Hrs = 3, Fee \$4

SGNL 1402 4 CR

Advanced American Sign Language

Prerequisite: SGNL 1401 or evidence of knowledge of basic sign language with permission of instructor. *READ*
Continuation of SGNL 1401. Intermediate and advanced skills in sign language with an emphasis on Amesian (American Sign Language) in terms of expressive and receptive communication.

Lecture Hrs = 3, Lab Hrs = 3, Fee \$4

SGNL 2301 3 CR

American Sign Language:
Interpreting, Literature, Folklore
and Review of Conversational Skills III

Prerequisite: SGNL 1402. *READ*

A review and application of conversational skills in American Sign Language. Interpreting from signing to voice and voice to signing. An introduction to American sign language literature and folklore.

Lecture Hrs = 3, Lab Hrs = 2, Fee \$4

SGNL 2302 3 CR

American Sign Language:
Interpreting, Literature, Folklore
and Review of Conversational Skills IV

Prerequisite: SGNL 2301. *READ*

A continuation of SGNL 2301.

Lecture Hrs = 3, Lab Hrs = 2, Fee \$4

SOCI 1301 Ω 3 CR

Introductory Sociology

Prerequisite: *READ, WRITE*

The principles of social organization including the study of social groups, culture, social change, personality population, rural and urban communities, social class and caste systems, and social institutions such as the family, recreation and religion.

Lecture Hrs = 3, Lab Hrs = 0

SOCI 1306 3 CR

Social Problems

Prerequisite: *READ, WRITE*

Social disorganization and reorganization with emphasis on the following topics: mental illness, suicide, drug addiction, alcoholism, sex deviation, crime, gambling, minority groups, divorce, and retirement.

Lecture Hrs = 3, Lab Hrs = 0

SOCI 2301 3 CR

Marriage and the Family

Prerequisite: *READ, WRITE*

A sociological examination of marriage and family life. Problems of courtship, mate selection, divorce, and marriage adjustment in modern American society.

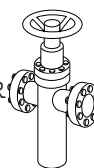
Lecture Hrs = 3, Lab Hrs = 0

Ω Indicates courses taught with optional honors contracts.

Σ Indicates honors courses.

See page 20 for additional information on the Honors Program.

<p>SOCI 2319 Ω 3 CR Multi-Cultural Studies Prerequisite: SOCI 1301, READ, WRITE This course focuses on the conflicts, dilemmas, and social problems that arise in multicultural societies. Special emphasis is placed on issues such as racism, sexism, and the 'politics of identity.' The course also examines a variety of remedies for the problems noted above. These include: the expansion of civil rights, affirmative action, and recognition of minority cultures. Lecture Hrs = 3, Lab Hrs = 0</p>	<p>SPCH 1145 1 CR Forensic Workshop Prerequisite: READ A laboratory course for students wishing to participate in debate, forensic, and interpretation tournaments. All speech tournament activities will be covered. One hour each semester. Lecture Hrs = 1, Lab Hrs = 2</p>	<p>SPCH 1342 3 CR Voice and Diction Prerequisite: READ Open to all students interested in improving their diction. Development of the voice and proper diction. Coaching of the individual student, with the aid of audio taping and an audio journal. Same as DRAM 2336. Lecture Hrs = 3, Lab Hrs = 0</p>
<p>SOCI 2336 3 CR Criminology Prerequisite: READ, WRITE Crime as a form of deviant behavior. Nature and extent of crime; past and present theories. Evaluation of prevention, control, and treatment programs. Lecture Hrs = 3, Lab Hrs = 0</p>	<p>SPCH 1315 3 CR Principles of Public Speaking Prerequisite: READ Preparation and delivery of various types of speeches. Emphasis upon such fundamental principles as self-confidence, poise, directness, posture, stress, voice, and articulation. Speech types considered include announcements and expository, persuasive, after-dinner, and radio speeches. Lecture Hrs = 3, Lab Hrs = 0</p>	<p>SPCH 2341 3 CR Oral Interpretation Prerequisite: READ Introduction to the study and application of the oral performance of literature. Preparation and oral reading of various types of literature, exercises in arranging and adapting literature, choral speaking, practice in phrasing, vocal quality, rhythm and bodily responses. Literature will be analyzed and researched with sensitivity to the sociological, political, and anthropological forces that shaped the literature. Lecture Hrs = 3, Lab Hrs = 0</p>
<p>SOCI 2339 3 CR Juvenile Delinquency Prerequisite: READ, WRITE Nature and extent of delinquency; competing explanatory models and theories; evaluation of prevention, control, and treatment programs. Same as PSYC 2318. Lecture Hrs = 3, Lab Hrs = 0</p>	<p>SPCH 1318 3 CR Interpersonal Communication Prerequisite: READ Designed for the student who wants to improve communication skills in one-to-one settings in small groups. A study and practice of effective interpersonal concepts and techniques. Includes subjects such as listening, assertive communication and dealing appropriately with conflict. Emphasis on self improvement. Lecture Hrs = 3, Lab Hrs = 0</p>	<p>SPNL 1301 3 CR Health Care Spanish Prerequisite: READ Development of practical spanish communication skills for the health care employee including medical terminology, greetings, common expressions, commands, and phrases normally used within a hospital or a physician's office. Lecture Hrs = 3, Lab Hrs = 0</p>
<p>SPAN 1411 4 CR Beginning Spanish Prerequisite: READ For students with little or no previous knowledge of Spanish. Vocabulary and grammar are taught through a variety of cognitive teaching methods including the use of patterned response drills, memorization of mini-dialogues, and the analysis of contextually related readings. Proper pronunciation is stressed throughout the course. Lecture Hrs = 3, Lab Hrs = 3, Fee \$4</p>	<p>SPCH 1321 3 CR Business and Professional Speech Prerequisite: READ Business and Professional Speech applies the techniques of oral communication to business and professional settings that people might encounter in business situations. Discussion and practical application include: methods and theory; problem-solving; the research, organization, and presentation of speeches; trends in media; interviewing. Lecture Hrs = 3, Lab Hrs = 0</p>	<p>TECA 1303 3 CR Family and Community Prerequisite: READ A study of the relationship between the child, family, community, and educators, including a study of parent education and involvement, family and community lifestyles, child abuse, and current family life issues. Lecture Hrs = 3, Lab Hrs = 0</p>
<p>SPAN 1412 4 CR Intermediate Spanish Prerequisite: SPAN 1411 or one admission credit in Spanish. READ Continuation of SPAN 1411. Lecture Hrs = 3, Lab Hrs = 3, Fee \$4</p>		<p>TECA 1311 3 CR Intro to Early Childhood Prerequisite: READ An introduction to the profession of early childhood education, focusing on developmentally appropriate practices, types of programs, historical perspectives, ethics, and current issues. Lecture Hrs = 3, Lab Hrs = 0</p>
<p>SPAN 2311 3 CR Spanish: Reading, Conversation, Composition and Grammar Review Prerequisite: SPAN 1412 or two admission credits for Spanish. READ Emphasis on oral fluency, grammar, composition, and the reading of modern Spanish prose. Lecture Hrs = 3, Lab Hrs = 0</p>		<p>TECA 1318 3 CR Nutrition, Health and Safety Prerequisite: READ A study of nutrition, health, safety, and related activities, including skill development in management of issues, guidelines, and practices in nutrition, as well as community health, hygiene, safety, and legal implications. Integration of these principles applied to a variety of settings. Lecture Hrs = 3, Lab Hrs = 0</p>
<p>SPAN 2312 3 CR Spanish: Reading, Conversation, Composition and Grammar Review Prerequisite: SPAN 2311 or three admission credits in Spanish. READ Continuation of SPAN 2311. Lecture Hrs = 3, Lab Hrs = 0</p>		<div style="border: 1px solid black; padding: 5px;"> <p><i>A prerequisite of READ, MATH, or WRITE indicates that the course has a skills prerequisite based on scores on local placement tests or their equivalent.</i></p> </div>



TECA 1354 Child Growth & Development Prerequisite: READ A study of the principles of normal child growth and development from conception to adolescence. Focus on physical, cognitive, social, and emotional domains of development. Lecture Hrs = 3, Lab Hrs = 0	3 CR	VNSG 1330 Maternal-Neonatal Nursing Prerequisite: VNSG 1331. READ Corequisite: VNSG 2331, VNSG 1219, VNSG 2361. Utilization of the nursing process in the assessment and management of the childbearing family. Emphasis on the bio-psycho-socio-cultural needs of the family during the phases of pregnancy, childbirth, and the neonatal period including abnormal conditions. This course will also include disorders of the female reproductive system. Lecture Hrs = 3, Lab Hrs = 0	3 CR	VNSG 1432 Medical-Surgical Nursing II Prerequisite: VNSG 1402. READ Corequisite: VNSG 1331. Continuation of Medical-Surgical Nursing I with application of the nursing process to the care of adult patients experiencing medical-surgical conditions in the health-illness continuum. Includes a variety of health care settings. This course will focus on the health care needs of the adult client with disorders of the endocrine, gastrointestinal, nervous, cardiovascular, eye and ear, and genitourinary systems. Special consideration will be given to the pediatric and geriatric client. Lecture Hrs = 5, Lab Hrs = 0, NLN Testing Fee \$50	4 CR
TECM 1349 Technical Math Applications Prerequisite: READ Fundamentals of trigonometry and geometry as used in a variety of technical settings. Topics include the use of plane and solid geometry to solve areas and volumes encountered in industry. Lecture Hrs = 3, Lab Hrs = 0	3 CR				
VNSG 1219 Professional Development Prerequisite: READ Corequisite: VNSG 1330. 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. Lecture Hrs = 2, Lab Hrs = 0, NLN Testing Fee \$50	2 CR				
VNSG 1304 Foundations of Nursing Prerequisite: MATH 110, acceptance into program. READ Corequisite: VNSG 1402. 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. This course will also include introduction to the principles of nutrition. Lecture Hrs = 3, Lab Hrs = 0	3 CR				
VNSG 1329 Medical-Surgical Nursing I Prerequisite: Acceptance into program. READ Corequisite: VNSG 1402. Application of the nursing process to the care of adult patients experiencing medical-surgical conditions in the health-illness continuum. A variety of health care settings are utilized. This course will focus on the health care needs of the client with cancer, HIV, and respiratory, musculoskeletal, and integumentary disorders. Lecture Hrs = 3, Lab Hrs = 0, NLN Testing Fee \$50	3 CR	VNSG 1331 Pharmacology Prerequisite: READ Corequisite: VNSG 1432, VNSG 2461, HITT 1305. Fundamentals of medications and their diagnostic, therapeutic, and curative effects. Includes nursing interventions utilizing the nursing process. Lecture Hrs = 3, Lab Hrs = 0	3 CR	VNSG 2331 Advanced Nursing Skills Prerequisite: READ Corequisite: VNSG 1330. Mastery of advanced level nursing skills and competencies in a variety of health care settings utilizing the nursing process as a problem-solving tool. Lecture Hrs = 4, Lab Hrs = 2, Fee \$10	3 CR
		VNSG 1363 Clinical Prerequisite: Acceptance into program. READ Corequisite: VNSG 1402. A basic, intermediate, or advanced type of health professions work-based instruction that helps students synthesize new knowledge, apply previous knowledge, or gain experience managing the workflow. Practical experience is simultaneously related to theory. Close and/or direct supervision is provided by the clinical professional (faculty or preceptor), generally in a clinical setting. Clinical education is an unpaid learning experience. Lecture Hrs = 0, Lab Hrs = 0, External Lab = 16, Insurance Fee \$18, Lab Fee \$10	3 CR	VNSG 2361 Clinical Prerequisite: READ Corequisite: VNSG 1330. A basic, intermediate, or advanced type of health professions work-based instruction that helps students synthesize new knowledge, apply previous knowledge, or gain experience managing the workflow. Practical experience is simultaneously related to theory. Close and/or direct supervision is provided by the clinical professional (faculty or preceptor), generally in a clinical setting. Clinical education is an unpaid learning experience. Lecture Hrs = 0, Lab Hrs = 0, External Lab = 18, Insurance Fee \$18, NLN Testing Fee \$50	3 CR
		VNSG 1402 Applied Nursing Skills I Prerequisite: Acceptance into program. READ Corequisite: BIOL 2404, VNSG 1304, VNSG 1329, VNSG 1363. Introduction to and application of primary nursing skills. Emphasis on utilization of the nursing process and related scientific principles. Based on Maslow's framework, the pediatric and geriatric client will receive a special emphasis regarding their individual needs. Lecture Hrs = 4, Lab Hrs = 3, Fee \$10	4 CR	VNSG 2461 Clinical Prerequisite: VNSG 1402. READ Corequisite: VNSG 1331. A basic, intermediate, or advanced type of health professions work-based instruction that helps students synthesize new knowledge, apply previous knowledge, or gain experience managing the workflow. Practical experience is simultaneously related to theory. Close and/or direct supervision is provided by the clinical professional (faculty or preceptor), generally in a clinical setting. Clinical education is an unpaid learning experience. Lecture Hrs = 0, Lab Hrs = 0, External Lab = 20, Insurance Fee \$18	4 CR



Ω Indicates courses taught with optional honors contracts.

∑ Indicates honors courses.

See page 20 for additional information on the Honors Program.

A prerequisite of READ, MATH, or WRITE indicates that the course has a skills prerequisite based on scores on local placement tests or their equivalent.

WLDG 1313 3 CR
Introduction to Blueprint Reading for Welders

Prerequisite: READ

A study of industrial blueprints. Emphasis placed on terminology, welding symbols, graphic description, and welding processes, including systems of measurement and industry standards. Interpretation of plans and drawings used by industry.

Lecture Hrs = 3, Lab Hrs = 0

WLDG 1323 3 CR
Welding Safety, Tools, and Equipment

Prerequisite: READ

An introduction to welding careers and safety practice, including welding safety; OSHA and the Hazardous Communication Act; Material Safety Data Sheets (MSDS); basic mathematics; measuring systems; shop operations; use and care of precision measuring tools; and the use and care of hand and power tools. Instruction on various types of welding equipment and processes, basic welding gases, fluxes, rods, electrodes, symbols, and blueprints, also includes metal preparation, joint design and oxy-fuel cutting.

Lecture Hrs = 3, Lab Hrs = 0, Fee \$10

WLDG 1327 3 CR
Welding Codes

Pre or corequisite: WLDG 2355, READ

An in-depth study of welding codes and their development in accordance with structural standards, welding processes, destructive and non-destructive test methods. Includes API 1104 and ASME Sections V and IX.

Lecture Hrs = 3, Lab Hrs = 0

WLDG 1337 3 CR
Introduction to Metallurgy

Prerequisite: READ

A study of ferrous and nonferrous metals from the ore to the finished product. Emphasis on metal alloys, heat treating, hard surfacing, welding techniques, forging, foundry processes, and mechanical properties of metal including hardness, machinability, ductility as related to welding inspection.

Lecture Hrs = 3, Lab Hrs = 0

WLDG 1428 4 CR
Introduction to Shielded Metal Arc Welding (SMAW)

Prerequisite: READ

Corequisite: WLDG 1323.

An introduction to shielded metal arc welding process. Emphasis placed on power sources, electrode selection, oxy-fuel cutting, and various joint designs. Instruction provided in SMAW fillet welds in various positions.

Lecture Hrs = 3, Lab Hrs = 3, Fee \$20

A prerequisite of READ, MATH, or WRITE indicates that the course has a skills prerequisite based on scores on local placement tests or their equivalent.

WLDG 1430 4 CR
Introduction to Gas Metal Arc (GMAW) Welding

Prerequisite: READ

A study of the principles of gas metal arc welding, setup and use of GMAW equipment, and safe use of tools/equipment. Instruction in various joint designs.

Lecture Hrs = 2, Lab Hrs = 2, Fee \$20

WLDG 1434 4 CR
Introduction to Gas Tungsten Arc (GTAW) Welding

Pre or corequisite: WLDG 1435 or WLDG 2453. READ

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 = 3, Fee \$20

WLDG 1435 4 CR
Introduction to Pipe Welding

Prerequisite: WLDG 2443. READ

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 1G and 2G using various electrodes.

Lecture Hrs = 3, Lab Hrs = 3, Fee \$20



WLDG 1491 4 CR
Special Topics in Welder/Welding Technologist: API Code Preparation

Pre or corequisite: WLDG 1327. READ

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. This course is designed to prepare a student to take the API 570, 510, or 653 Code Exam.

Lecture Hrs = 3, Lab Hrs = 3, Fee \$20

WLDG 2331 3 CR
Advanced Blueprint Interpretation and Cost Analysis

Prerequisite: WLDG 1313. READ

A continuation of the Blueprint for Welders course. Emphasis placed on inspection, cost analysis, and estimating, including instruction in basic drafting skills as related to welding inspection.

Lecture Hrs = 3, Lab Hrs = 0

WLDG 2355 3 CR
Advanced Welding Metallurgy

Pre or corequisite: WLDG 1337. READ

A study of metallurgy as it applies to welding, including structure, identification, and testing of metals; temperature changes and their effect on welded metals; properties of metals, and factors affecting weldability of ferrous and nonferrous metals.

Lecture Hrs = 3, Lab Hrs = 1

WLDG 2411 4 CR
Preparation for Welding Inspection Certification

Pre or corequisite: WLDG 1337. READ

Preparation for students for certification as welding inspectors, including accepted testing requirements and procedures, measurement systems, duties and responsibilities of inspectors, destructive and nondestructive testing, quality assurance/quality control, welding codes and blueprints, procedures, and case studies. An overview of welding tools and equipment, metallurgy, chemistry, and joint design.

Lecture Hrs = 3, Lab Hrs = 3, Fee \$20

WLDG 2443 4 CR
Advanced Shielded Metal Arc Welding (SMAW)

Prerequisite: WLDG 1428. READ

Advanced topics based on accepted welding codes. Training provided with various electrodes in shielded metal arc welding processes with open V-groove joints in all positions.

Lecture Hrs = 3, Lab Hrs = 3, Fee \$20

WLDG 2451 4 CR
Advanced Gas Tungsten Arc Welding (GTAW)

Prerequisite: WLDG 1434. READ

Advanced topics in GTAW welding, including welding in various positions and directions.

Lecture Hrs = 3, Lab Hrs = 3, Fee \$20

WLDG 2453 4 CR
Advanced Pipe Welding

Prerequisite: WLDG 1435. READ

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 = 3, Fee \$20

