Chapter 5 • Course Descriptions

TSI College Readiness Standards and Lee College Certificates and Degrees January, 2004

Degree/Certificate	TSI College Readiness Required Read	Write	Math
Certificates of Completion:			
Law Enforcement	yes	yes	no
All other certificates	no	no	no
All AA, AAT and AS Degrees:	yes	yes	yes
AAS Degrees:			
Accounting Technology	yes	yes	no
Alcohol and Drug Abuse Counseling	yes	yes	no
Business Mangement	yes	yes	no
Computer Maintenance Technology	yes	yes	no
Computer Programming	yes	yes	yes
Cosmetology Instructor	yes	yes	no
Desktop Publishing	yes	yes	yes
Drafting Technology	yes	yes	no
Electrical Technology	yes	yes	no
Health Information Technology	yes	yes	no
Instrumentation Technology	yes	yes	no
Law Enforcement	yes	yes	no
Legal Assistant	yes	yes	no
Machine Shop	yes	yes	no
Machine Shop-Millwright	yes	yes	no
Management	yes	yes	no
Microcomputer Applications	yes	yes	yes
Nursing (RN)	yes	yes	no
Pipefitting	yes	yes	no
Process Technology	yes	yes	no
Professional Office Technology	yes	yes	no
Transitional Nursing (RN)	yes	yes	no
Welding Technology	yes	yes	no

Notes:
1. While there is no TSI reading requirement for certificate programs, there is a College graduation requirement. (See p. 31)
2. The core curriculum for the AAS degree allows students the option of completing a natural science or math course. Students who select the math option must meet the TSI College Readiness standard in math. (See Course Options for Core Curriculum, p. 36)

Ω indicates courses taught with optional honors contracts.
Σ indicates honors courses. See page 20 for additional information on the honors program.

ACCT 2401
Principles of Accounting I - Financial
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
Prerequisite: READ 301 or equivalent

ACCT 2402 Ω
Principles of Accounting II-Managerial
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
Prerequisite: ACCT 2401, READ 301 or equivalent

ACNT 1303
Introduction to Accounting I
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
Prerequisite: READ 301 or equivalent

ACNT 1311
Introduction to Computerized Accounting
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. (Fall only)
Lecture Hrs = 2, Lab Hrs = 2
Prerequisite: ACCT 2401, READ 301 or equivalent

ACNT 1313
Computerized Accounting Applications
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. (Spring only)
Lecture Hrs = 2, Lab Hrs = 2
Prerequisite: ACCT 2401, READ 301 or equivalent

ACNT 1329
Payroll and Business Tax Accounting
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. (Spring only)
Lecture Hrs = 3, Lab Hrs = 0
Prerequisite: ACCT 2401, READ 301 or equivalent

ACNT 1331
Federal Income Tax: Individual
A study of the laws currently implemented by the IRS, 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 compilation of income tax due. The use of computer tax program is included.
Lecture Hrs = 3, Lab Hrs = 0
Prerequisite: READ 301 or equivalent

ACNT 2301
Accounting Technician Capstone
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 simulate workplace situations.
Lecture Hrs = 3, Lab Hrs = 0
Prerequisite: ACCT 2401, READ 301 or equivalent

ACNT 2302
Accounting Capstone
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 simulate workplace situations.
Lecture Hrs = 3, Lab Hrs = 0
Prerequisite: ACNT 2303, READ 301 or equivalent

ACNT 2303
Intermediate Accounting I
Critical analysis of generally accepted accounting principles, concepts, and theory underlying the preparation of financial statements. Emphasis 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. (Fall only)
Lecture Hrs = 3, Lab Hrs = 0
Prerequisite: ACCT 2402, READ 301 or equivalent

ACNT 2304
Intermediate Accounting II
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. (Spring only)
Lecture Hrs = 3, Lab Hrs = 0
Prerequisite: ACNT 2303, READ 301 or equivalent

ACNT 2309
Cost Accounting
A study of budgeting and cost control systems including a detailed study of manufacturing cost accounts and reports, job order costing, and process costing. Includes introduction to alternative costing methods such as activity-based and just-in-time costing. The course also includes cost allocations, break-even analysis, profit-volume ratio, standard, direct and variable costing. (Fall only)
Lecture Hrs = 3, Lab Hrs = 0
Prerequisite: ACCT 2402, READ 301 or equivalent

ACNT 2386
Internship—Accounting Technology/ Technician and Bookkeeping
A work-based learning experience that enables the student to apply specialized occupational theory, skills and concepts. A learning plan is developed by the college and the employer. Mentored and supervised by a workplace employee, the student achieves objectives that are developed and documented by the college. The experience may be paid or unpaid, MUST be in accounting related job for a minimum of 13 hours per week. 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 = 0, Lab Hrs = 0, External Hrs = 13
Prerequisite: ACCT 2401, READ 301 or equivalent

ACNT 2387
Internship-Accounting Technology/ Technician and Bookkeeping
A work-based learning experience that enables the student to apply specialized occupational theory, skills and concepts. A learning plan is developed by the college and the employer. Mentored and supervised by a workplace employee, the student achieves objectives that are developed and documented by the college. The experience may be paid or unpaid, MUST be in accounting related job for a minimum of 13 hours per week. 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 = 0, Lab Hrs = 0, External Hrs = 13
Prerequisite: ACCT 2402, READ 301 or equivalent

ACNT 2389
Internship—Accounting
A work-based learning experience that enables the student to apply specialized occupational theory, skills and concepts. A learning plan is developed by the college and the employer. Mentored and supervised by a workplace employee, the student achieves objectives that are developed and documented by the college. The experience may be paid or unpaid, MUST be in accounting related job for a minimum of 13 hours per week. 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 Accounting Technology degree.
Lecture Hrs = 0, Lab Hrs = 0, External Hrs = 13
Prerequisite: ACNT 2303, READ 301 or equivalent

AGRI 2317
Introduction to Agricultural Economics
An introduction to the study of the field of agricultural economics and fundamental economic problems and their applications to the problems of the industry of agriculture. Concepts are illustrated in terms of selected current social and economic issues, including the role of agriculture in both the national and international dimension.
Lecture Hrs = 3, Lab Hrs = 0
Pre/Corequisite: READ 300 or equivalent

Refer to page 74 for explanation of prerequisites, corequisites, or pre/corequisites.

AIRP 1215
Private Flight
Flight training to prepare the student for the completion of the Federal Aviation Administration private pilot certificate, including dual and solo flight in the areas of maneuvers and cross-country navigation.
Lecture Hrs = 1, Lab Hrs = 2
(18 pre/post, 30 dual, 0 solo)
Pre/Corequisite: READ 300 or equivalent
Corequisite: Two ground classes in Fall/Spring semesters; one in summer terms

AIRP 1255
Intermediate Flight
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 certificate.
Lecture Hrs = 1, Lab Hrs = 3
(15 pre/post, 27 dual, 22 solo)
Prerequisite: AIRP 1215
Corequisite: Two ground classes in Fall/Spring semesters; one in summer terms
Pre/Corequisite: READ 300 or equivalent

AIRP 1301
Air Navigation
Instruction in Visual Flight rules navigation in the National Airspace System. Topics include sectional charts, flight computers, plotters, and navigation logs and publications. Qualifies as part of a program leading to Federal Aviation Administration Private Pilot certification.
Lecture Hrs = 3, Lab Hrs = 0
Pre/Corequisite: READ 300 or equivalent

AIRP 1307
Aviation Meteorology
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
Pre/Corequisite: READ 300 or equivalent

AIRP 1317
Private Pilot Ground School
Basic ground school for the Federal Aviation Administration 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
Pre/Corequisite: READ 300 or equivalent

AIRP 1341
Advanced Air Navigation
Skill development in advanced airplane systems and performance including radio navigation and cross-country flight planning. Includes 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
Prerequisite: AIRP 1301
Pre/Corequisite: READ 300 or equivalent

AIRP 1343
Aerodynamics
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 are also included.
Lecture Hrs = 3, Lab Hrs = 0
Pre/Corequisite: READ 300 or equivalent

AIRP 1345
Aviation Safety
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
Pre/Corequisite: READ 300 or equivalent

AIRP 1351
Instrument Ground School
A study of basic instrument radio and navigation fundamentals used in instrument flight. Topics include a description and practical use of 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
Pre/Corequisite: READ 300 or equivalent

AIRP 2239
Commercial Flight
Flight instruction necessary to qualify for the Federal Aviation Administration Commercial Pilot Cerificate. 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)
Prerequisite: AIRP 2250
Corequisite: Two ground classes in Fall/Spring semesters; one in summer terms
Pre/Corequisite: READ 300 or equivalent

AIRP 2250
Instrument Flight
Preparation for completion of the Federal Aviation Administration Instrument Pilot Rating with mastery of all instrument flight procedures.
Lecture Hrs = 1, Lab Hrs = 2
(16 pre/post, 32 dual, 0 solo)
Prerequisite: AIRP 1255
Corequisite: Two ground classes in Fall/Spring semesters; one in summer terms
Pre/Corequisite: READ 300 or equivalent

AIRP 2331
Advanced Meteorology
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
Prerequisite: AIRP 1307
Pre/Corequisite: READ 300 or equivalent

AIRP 2333
Aircraft Systems
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
Pre/Corequisite: READ 300 or equivalent

AIRP 2337
Commercial Ground School
A study of advanced aviation topics that can be used for Federal Aviation Administration certification at the commercial pilot level. Includes preparation for the Federal Aviation Administration Commercial Airplane written test.
Lecture Hrs = 3, Lab Hrs = 0
Prerequisite: AIRP 2250
Corequisite: Two ground classes in Fall/Spring semesters; one in summer terms
Pre/Corequisite: READ 300 or equivalent

ANTH 2351
Cultural Anthropology
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
Prerequisite: READ 301 or equivalent, ENGL 302 or equivalent

ARCH 1301
Architectural History I
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
Prerequisite: ENGL 301 or equivalent, MATH 320 or equivalent, READ 301 or equivalent

ARCH 1302
Architectural History II
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
Prerequisite: ENGL 301 or equivalent, MATH 320 or equivalent, READ 301 or equivalent

ARCH 1303
Architectural Design I
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 = 3, Lab Hrs = 3
Prerequisite: READ 301 or equivalent
Pre/Corequisite: ARCH 2301

ARCH 1304
Architectural Design II
This course is a continuation of ARCH 1303 (Architectural Design I), with emphasis on more complex, three-dimensional design problems.
Lecture Hrs = 3, Lab Hrs = 3
Prerequisite: ARCH 1303, READ 301 or equivalent

ARCH 1305
Architectural Aesthetics
Architecture as a contemporary philosophical concept. Visual experience in the aesthetics of architecture.
Lecture Hrs = 3, Lab Hrs = 0
Prerequisite: ENGL 301 or equivalent, READ 301 or equivalent

ARCH 1307
Architectural Graphics I
Architectural drafting techniques including orthographic and axonometric studies. Principals 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. Design and graphic concepts are introduced through design problems, modeling and analysis.
Lecture Hrs = 3, Lab Hrs = 3
Prerequisites: ENGL 301, MATH 310, READ 301 or equivalent

ARCH 1308
Architectural Graphics II
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. Design and graphic concepts are further studied through design problems, modeling and analysis.
Lecture Hrs = 3, Lab Hrs = 3
Prerequisite: ARCH 1307, READ 301 or equivalent

ARCH 1311
Introduction to Architecture
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
Prerequisite: ENGL 301 or equivalent, READ 301 or equivalent

ARCH 1315
Architectural Computer Graphics
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 computer 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
Pre/Corequisite: ARCH 1311

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 the study and application of freehand drawing and other basic communication skills using various media. Use of computer software and its relationship to drawing are studied.
Lecture Hrs = 3, Lab Hrs = 3
Prerequisites: ENGL 301, MATH 310, READ 301 or equivalent

ARCH 2312
Architectural Technology
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
Prerequisite: READ 301 or equivalent
Pre/Corequisites: PHYS 1401, MATH 1316 or MATH 2412 or equivalent

ARTC 1413
Digital Publishing I
The fundamentals of using digital layout as a primary publishing tool and the basic concepts and terminology associated with typography and page layout.
Lecture Hrs = 3, Lab Hrs = 3
Prerequisite: READ 301 or equivalent
Pre/Corequisite: ITSC 1309

ARTC 1453
Computer Illustration
Mastery of the tools and transformation options of an industry-standard drawing program to create complex illustrations and follow them through to the color output stage. Includes acquisition of images through scanning and the creative use of clip art.
Lecture Hrs = 3, Lab Hrs = 3
Prerequisite: READ 301 or equivalent
Pre/Corequisite: ITSC 1309

ARTC 2440
Computer Illustration II
Advanced use of software capabilities with emphasis on various output procedures, the resolution of complex design issues, and concept development.
Lecture Hrs = 3, Lab Hrs = 3
Prerequisite: ARTC 1453, READ 301 or equivalent
Pre/Corequisite: ARTC 1413

ARTS 1301
Art Appreciation
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
Pre/Corequisite: READ 301 or equivalent

ARTS 1303
Art History I
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
Pre/Corequisite: READ 301 or equivalent

ARTS 1304
Art History II
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
Pre/Corequisite: READ 301 or equivalent

ARTS 1311
Design I
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
Pre/Corequisite: READ 300 or equivalent

ARTS 1312
Design II
Continuation of ARTS 1311 with emphasis on three-dimensional concepts.
Lecture Hrs = 3, Lab Hrs = 3
Prerequisite: ARTS 1311
Pre/Corequisite: READ 300 or equivalent

ARTS 1313
Art Education
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
Pre/Corequisite: READ 301 or equivalent

ARTS 1316
Drawing I
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
Pre/Corequisite: READ 300 or equivalent

ARTS 1317
Drawing II
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
Prerequisite: ARTS 1316
Pre/Corequisite: READ 300 or equivalent

ARTS 2313 Ω
Design Communications I
A course introducing the communication of ideas through processes and techniques of graphic design and illustration. This course will also introduce digital multimedia exploring elements of design and digital imagery.
Lecture Hrs = 3, Lab Hrs = 3
Pre/Corequisite: READ 300 or equivalent

Ω indicates courses taught with optional honors contracts.
Σ indicates honors courses. See page 14 for additional information on the honors program.

Refer to page 74 for explanation of prerequisites, corequisites, or pre/corequisites.

ARTS 2314 Ω
Design Communications II
This course continues to explore the communication of ideas through processes and techniques of graphic design and illustration. Emphasis will be placed on the use of computer applications for creative expressions. Course projects and methods of instruction emphasize the element of fine art design and conceptual development.
Lecture Hrs = 3, Lab Hrs = 3
Prerequisite: ARTS 1311 or ARTS 2313
Pre/Corequisite: READ 300 or equivalent

ARTS 2316 Ω
Painting I
Exploring the potentials of painting media with emphasis on color and composition.
Lecture Hrs = 3, Lab Hrs = 3
Pre/Corequisite: READ 300 or equivalent

ARTS 2317 Ω
Painting II
Continuation of ARTS 2316 with emphasis on individual expression.
Lecture Hrs = 3, Lab Hrs = 3
Prerequisite: ARTS 2316
Pre/Corequisite: READ 300 or equivalent

ARTS 2323 Ω
Life Drawing I
Continuation of student exploration of various techniques and materials of drawing as applied to the human form. Portfolio review required.
Lecture Hrs = 3, Lab Hrs = 3
Prerequisite: ARTS 1316, ARTS 1317
Pre/Corequisite: READ 300 or equivalent

ARTS 2324 Ω
Life Drawing II
Continuation of student exploration of the media and techniques of drawing as applied to the human form and the development of a portfolio of completed drawings with emphasis on stylistic development. Portfolio presentation required.
Lecture Hrs = 3, Lab Hrs = 3
Prerequisite: ARTS 2323
Pre/Corequisite: READ 300 or equivalent

ARTS 2326 Ω
Sculpture I
An exploration of various approaches in a variety of media including additive and subtractive techniques.
Lecture Hrs = 3, Lab Hrs = 3
Pre/Corequisite: READ 300 or equivalent

ARTS 2327 Ω
Sculpture II
A continuation of ARTS 2326 with emphasis on individual expression.
Lecture Hrs = 3, Lab Hrs = 3
Prerequisite: ARTS 2326
Pre/Corequisite: READ 300 or equivalent

ARTS 2333 Ω
Printmaking I
A beginning course investigating a number of printmaking approaches, techniques and principles.
Lecture Hrs = 3, Lab Hrs = 3
Pre/Corequisite: READ 300 or equivalent

ARTS 2334 Ω
Printmaking II
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
Prerequisite: ARTS 2333
Pre/Corequisite: READ 300 or equivalent

ARTS 2346 Ω
Ceramics I
An introduction to basic ceramic processes.
Lecture Hrs = 3, Lab Hrs = 3
Pre/Corequisite: READ 300 or equivalent

ARTS 2347 Ω
Ceramics II
Opportunities for specialization in ceramic processes.
Lecture Hrs = 3, Lab Hrs = 3
Prerequisite: ARTS 2346
Pre/Corequisite: READ 300 or equivalent

ARTS 2348 Ω
Digital Art I
Studio art course that explores the potential of the computer hardware and software medium for their visual, conceptual, and practical uses in the visual arts.
Lecture Hrs = 3, Lab Hrs = 3
Prerequisite: ARTS 1311 or ARTS 2313 or ARTS 2314
Pre/Corequisite: READ 300 or equivalent

ARTS 2349 Ω
Digital Art II
Studio art course that continues to explore the potential of the computer hardware and software medium for their visual, conceptual, and practical uses in the visual arts. This course also investigates the use of 3-D animation and its relationship to the fine arts.
Lecture Hrs = 3, Lab Hrs = 3
Prerequisite: ARTS 1311 or ARTS 2313 or ARTS 2314
Pre/Corequisite: READ 300 or equivalent

ARTS 2356 Ω
Introduction to Photography
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
Pre/Corequisite: READ 300 or equivalent

ARTS 2357 Ω
Advanced Photographic Practices
A continuation of ARTS 2356, designed to give additional laboratory experience and advanced training to develop professional ability.
Lecture Hrs = 3, Lab Hrs = 3
Prerequisite: ARTS 2356
Pre/Corequisite: READ 300 or equivalent

BCIS 1301
Microcomputer Applications
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
Prerequisite: READ 301 or equivalent

BCIS 1405
Business Computer Applications
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
Prerequisite: READ 301 or equivalent

BIOL 1322
Nutrition
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
Pre/Corequisite: READ 301 or equivalent, ENGL 301 or equivalent, MATH 310 or equivalent

Either BIOL 1406 and 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.

BIOL 1406 Ω
General Biology I
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
Pre/Corequisite: READ 302 or equivalent, ENGL 301 or equivalent, MATH 310 or equivalent

BIOL 1407 Ω
General Biology II
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
Prerequisite: BIOL 1406 (C or better)
Pre/Corequisites: READ 302 or equivalent, ENGL 301 or equivalent, MATH 310 or equivalent

Ω indicates courses taught with optional honors contracts.
Σ indicates honors courses. See page 14 for additional information on the honors program.

BIOL 1411
General Botany
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
Pre/Corequisite: READ 301 or equivalent, ENGL 301 or equivalent, MATH 310 or equivalent

BIOL 1413
General Zoology
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
Pre/Corequisite: READ 301 or equivalent, ENGL 301 or equivalent, MATH 310 or equivalent

BIOL 1424
Plant Taxonomy
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
Pre/Corequisite: READ 301 or equivalent, ENGL 301 or equivalent, MATH 310 or equivalent

BIOL 2305
Pathophysiology
A study of the structure and function of the human body with specialized emphasis on disease processes.
Lecture Hrs = 3, Lab Hrs = 0
Prerequisite: BIOL 2401 (C or Better), READ 301 or equivalent

BIOL 2401
Human Anatomy and Physiology I
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
Prerequisite: READ 301 or equivalent

BIOL 2402
Human Anatomy & Physiology II
A continuation of BIOL 2401.
Lecture Hrs = 3, Lab Hrs = 3
Prerequisite: BIOL 2401 (C or Better), READ 301 or equivalent

BIOL 2404
The Human Body
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
Prerequisite: READ 301 or equivalent

BIOL 2416
Genetics
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
Prerequisite: Any BIOL Course (C or Better)
Pre/Corequisite: READ 301 or equivalent, ENGL 301 or equivalent, MATH 310 or equivalent

BIOL 2421
Microbiology
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
Pre/Corequisite: READ 301 or equivalent, ENGL 301 or equivalent, MATH 310 or equivalent

BMGT 1301
Supervision
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
Pre/Corequisite: READ 300 or equivalent

BMGT 1303
Principles of Management
Concepts, terminology, principles, theories, and issues in the field of management.
Lecture Hrs = 3, Lab Hrs = 0
Prerequisite: READ 301 or equivalent

BMGT 1307
High Performance Work Teams
A student of the basic principles of building and sustaining teams in organizations including team dynamics and process improvement.
Lecture Hrs = 3, Lab Hrs = 0
Pre/Corequisite: READ 300 or equivalent

BMGT 1383
Cooperative Education-Business Administration and Management, General
Career-related activities encountered in the student's area of specialization offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component.
Lecture Hrs = 1, Lab Hrs = 0, External Hrs = 20
Prerequisite: READ 300 or equivalent

BMGT 1395
Special Topic in Operations Management and Supervision: Process Control and Supply Chain Management
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 was desinged to be repeated multiple times to improve student proficiency. Planning and control of production and service operations. Operations management entails all of the activities that create goods and services by transforming inputs to outputs. These activities include forecasting, process control, layout strategy, inventory management, aggregate planning, supply chain management, and work measurement.
Lecture Hrs = 3, Lab Hrs = 0
Prerequisite: READ 301 or equivalent

BMGT 2303
Problem Solving and Decision Making
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
Prerequisite: READ 301 or equivalent

BMGT 2309
Leadership
Concepts of leadership and its relationship to management. Prepares the student with leadership and communication skills needed to motivate and identify.
Lecture Hrs = 3, Lab Hrs = 0
Prerequisite: READ 301 or equivalent

BMGT 2331
Principles of Quality Management
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
Prerequisite: READ 301 or equivalent

BMGT 2347
Critical Thinking and Problem Solving
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
Prerequisite: READ 301 or equivalent

BMGT 2382
Cooperative Education-Business Administration and Management, General
Career-related activities encountered in the student's area of specialization offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component.
Lecture Hrs = 1, Lab Hrs = 0, External Hrs = 20
Prerequisite: BMGT 1383, READ 301 or equivalent

BMGT 2383
Cooperative Education-Business Administration and Management, General
Career-related activities encountered in the student's area of specialization offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component.
Lecture Hrs = 1, Lab Hrs = 0, External Hrs = 20
Prerequisite: BMGT 1383, READ 301 or equivalent

Ω indicates courses taught with optional honors contracts.
Σ indicates honors courses. See page 14 for additional information on the honors program.

BUSG 2309
Small Business Management
Starting and operating a small business. Includes 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
Prerequisite: READ 301 or equivalent

BUSI 1301
Business Principles
Introduction to the role of business in modern society. Includes overview of business operations, analysis of the specialized fields within the business organization, and devlopment of a business vocabulary.
Lecture Hrs = 3, Lab Hrs = 0
Prerequisite: READ 301 or equivalent

BUSI 1307
Personal Finance
Personal and family accounts, budgets and budgetary control, bank accounts, charge accounts, borrowing, investing, insurance, standards of living, renting or home ownership, and wills and trust plans.
Lecture Hrs = 3, Lab Hrs = 0
Pre/Corequisite: READ 301 or equivalent

BUSI 2301
Business Law
Principles of law which form the legal framework for business activity.
Lecture Hrs = 3, Lab Hrs = 0
Pre/Corequisite: READ 301 or equivalent

CDAP 200
Career Development and Planning
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
Prerequisite: READ 300 or equivalent

CHEM 1405 Ω
Introductory Inorganic Chemistry
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
Pre/Corequisite: MATH 320 or equivalent, READ 301 or equivalent

CHEM 1411 Ω
General Chemistry I
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
Prerequisite: READ 301 or equivalent
Pre/Corequisite: MATH 1414 or equivalent

CHEM 1412
General Chemistry II
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
Prerequisite: CHEM 1411, MATH 1414 or equivalent
Pre/Corequisite: READ 301 or equivalent

CHEM 1419 Ω
Introductory Organic Chemistry
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.
Lecture Hrs = 3, Lab Hrs = 3
Pre/Corequisite: MATH 320 or equivalent, READ 301 or equivalent

CHEM 2401
Analytical Environmental Chemistry
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.
Lecture Hrs = 3, Lab Hrs = 3
Prerequisite: CHEM 1412, MATH 1414 or equivalent
Pre/Corequisite: READ 301 or equivalent

CHEM 2423
Organic Chemistry I
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, cistrans and optical isomerism.
Lecture Hrs = 3, Lab Hrs = 3
Prerequisite: CHEM 1412, MATH 1414
Pre/Corequisite: READ 302 or equivalent

CHEM 2425
Organic Chemistry II
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.
Lecture Hrs = 3, Lab Hrs = 3
Prerequisite: CHEM 2423, MATH 1414 or equivalent
Pre/Corequisite: READ 302 or equivalent

CJSA 2382
Cooperative Education - Criminal Justice/ Safety Studies
Career-related activities encountered in the student's area of specialization offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component.
Lecture Hrs = 1, Lab Hrs = 0, External Hrs = 15
Prerequisite: READ 301 or equivalent

CNBT 1411
Construction Methods and Materials I
Introduction to construction materials and methods and their applications.
Lecture Hrs = 3, Lab Hrs = 3
Pre/Corequisite: READ 301 or equivalent

CNBT 1442
Building Codes and Inspections
Building codes and standards applicable to building construction and inspection processes.
Lecture Hrs = 3, Lab Hrs = 3
Pre/Corequisite: READ 301 or equivalent

CNBT 2442
Construction Management I
Human relations management skills in motivation on the job site. Topics include written and oral communications, leadership and motivation, problem solving, and decision making.
Lecture Hrs = 3, Lab Hrs = 3
Pre/Corequisite: READ 301 or equivalent

COMM 1307
Introduction to Mass Communications
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 = 3, Lab Hrs = 0
Prerequisite: ENGL 301 or equivalent, READ 302 or equivalent

COMM 2122
Advanced Recording and Production Techniques
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 as follows: Development of Project Presentation; Development of Studio Procedure; Refinement of Tracking skills; Development of Mixing skills.
Lecture Hrs = 1, Lab Hrs = 3
Prerequisite: COMM 2220
Pre/Corequisite: READ 300 or equivalent

COMM 2220
Intermediate Recording Techniques
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 it's various approaches. This course will explore:

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mixing concepts, bussing and routing concepts, the use of effects and dynamic processing and project conceptualizations. Some of the key topics that will be discusssed in this course are as follows: Familiarization with studio equipment; Studio paperwork; Tracking techniques; Mixing techniques.
Lecture Hrs = 2, Lab Hrs = 3
Prerequisite: COMM 2303
Pre/Corequisite: READ 300 or equivalent

COMM 2303
Beginning Audio Recording Techniques
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 the acoustic environment and the wavecycle. 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 = 0
Prerequisite: READ 300 or equivalent

COMM 2305
Business Publication Design
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 = 0
Prerequisite: ENGL 302 or equivalent, READ 301 or equivalent

COMM 2311
Reporting I
A general study of newspaper writing, proof reading, interviewing, news judgement, news concept, and news qualities.
Lecture Hrs = 3, Lab Hrs = 1
Prerequisite: ENGL 301 or equivalent, READ 302 or equivalent

COMM 2324
Electronic Music I (Editing Hard Disc)
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 (HDR) Recording (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 HD Technology will be discussed in their relationship to studio design and function.
Lecture Hrs = 3, Lab Hrs = 3
Prerequisite: COMM 2220 and COSC 1301, or BCIS 1301, or BCIS 1405
Pre/Corequisite: READ 300 or equivalent

COMM 2325
Electronic Music II (MIDI Interface)
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 disk recording, synthesizer editing, digital sampling transfer of audio data, and CD mastering. Student will complete projects using synthesis techniques; edit samples and synthesizer voices.
Lecture Hrs = 3, Lab Hrs = 3
Prerequisite: COMM 2303, READ 300 or equivalent

COMM 2389A
Audio Recording Cooperative
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 = 1, Lab Hrs = 0, External Hrs = 6
Prerequisite: READ 300 or equivalent, Instructor's permission

COMM 2389H
Communications Cooperative
This course provides students with work-related experience in any of the following areas: journalism, mass communications, electronic broadcast media, public relations, advertising, audio enhancement, graphic design, web page development.
Lecture Hrs = 1, Lab Hrs = 0, External Lab Hrs = 6
Prerequisite: READ 302 or equivalent, Instructor's permission

COMM 2389P
Professional Writing Internship
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 = 1, Lab Hrs = 0, External Hrs = 6
Prerequisite: Instructor's permission; READ 302 or equivalent

COSC 1301
Microcomputer Applications
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
Prerequisite: READ 301 or equivalent

COSC 1420
"C" Language Programming
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
Prerequisite: COSC 1301 or ITSC 1309, READ 301

COSC 1436
Programming Fundamentals I
Introduces the fundamental concepts of structured programming. Topics include software development methodology, data types, control structures, functions, arrays, and the mechanics of running, testing, and debugging. This course assumes computer literacy.(Fall Only)
Lecture Hrs = 3, Lab Hrs = 3
Pre/Corequisite: COSC 1301, READ 301 or equivalent

COSC 1437
Programming Fundamentals II
Review of control structures and data types with emphasis on structured data types. Applies the object-oriented programming paradigm, focusing on the definition and use of classes along with the fundamentals of object-oriented design. Includes basic analysis of algorithms, searching and sorting techniques, and an introduction to software engineering. (Spring Only)
Lecture Hrs = 3, Lab Hrs = 3
Prerequisite: COSC 1436, READ 301 or equivalent

COSC 2325
Computer Organization and Machine Language
Basic computer organization; machine cycle, digital representation of data and instructions; assembly language programming, assembler, loader, macros, subroutines, and program linkages. (Fall Only)
Lecture Hrs = 2, Lab Hrs = 2
Prerequisite: COSC 1436, READ 301 or equivalent

COSC 2436
Programming Fundamentals III
Further applications of programming techniques, introducing the fundamental concepts of data structures (including stacks, queues, linked lists, hash tables, trees, and graphs), and algorithmic analysis. (Spring Only)
Lecture Hrs = 3, Lab Hrs = 3
Prerequisite: COSC 1437, READ 301 or equivalent

COSS 100
Applied Study Skills
Application of study skills techniques to individual learning styles with concentration on notetaking, text marking, and test preparation.
Lecture Hrs = 1, Lab Hrs = 0

COSS 300
Study Skills
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
Pre/Corequisite: READ 300 or equivalent

CPMT 1407
Electronic and Computer Skills
Modern electronic construction techniques including using common hand tools in disassembly, repair, and re-assembly of electronics and computer components. Fundamentals of DC, AC and solid-state concepts are presented. This course provides a foundation of tools and concepts for the computer maintenance technician.
Lecture Hrs = 3, Lab Hrs = 3
Prerequisite: READ 300 or equivalent

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Σ indicates honors courses. See page 14 for additional information on the honors program.

Refer to page 74 for explanation of prerequisites, corequisites, or pre/corequisites.

CPMT 1411
Introduction to Computer Maintenance
Introduction to the installation, configuration, and maintenance of a microcomputer system. Emphasis on the evolution of microprocessors and microprocessor busstructures. Course prepares student to successfully complete the A+ certification hardware examination.
Lecture Hrs = 3, Lab Hrs = 3
Prerequisite: READ 300 or equivalent

CPMT 1445
Computer System Maintenance
Functions of the components within a computer system. Development of skills in the use of test equipment and maintenance aids. Digital logic, combinational circuitry, and number systems are presented.
Lecture Hrs = 3, Lab Hrs = 3
Prerequisite: READ 300 or equivalent

CPMT 1449
Computer Networking Technology
Networking fundamentals, terminology, hardware, software, and network architecture. Includes local and wide area networking concepts and networking installations and operations.
Lecture Hrs = 3, Lab Hrs = 3
Prerequisite: CPMT 1411, READ 300 or equivalent

CPMT 2433
Computer Integration
Integration of hardware, software, and applications. Customization of computer systems for specific applications such as engineering, multi-media, or data acquisition. Fieldbus applications are emphasized. The student will design special applications in the areas of multi-media, data acquisition, and engineering; install and maintain various hardware and software components for specialized applications; and analyze and test system operations.
Lecture Hrs = 3, Lab Hrs = 3
Prerequisite: INTC 1450, READ 300 or equivalent

CPMT 2445
Computer System Troubleshooting
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
Prerequisite: CPMT 1411, READ 300 or equivalent

CPMT 2449
Advanced Computer Networking Technology
Network technology emphasizing network operating systems, network connectivity, hardware, and software. Includes implementation, troubleshooting, and maintenance of LAN and/or WAN network environments.
Lecture Hrs = 3, Lab Hrs = 3
Prerequisite: READ 300 or equivalent
Pre/Corequisite: CPMT 1449

CPMT 2488
Internship-Computer Installation and Repair Technology/Technician
A work-based learning experience that enables the student to apply specialized occupational theory, skills and concepts. A learning plan is developed by the college and the employer.
Lecture Hrs = 0, Lab Hrs = 0, External Hrs = 15
Prerequisite: CPMT 2445, READ 300 or equivalent

CRIJ 1301
Introduction to Criminal Justice
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
Prerequisite: READ 301 or equivalent

CRIJ 1306
Court Systems & Practices
Study of the judiciary in the American criminal justice system and the adjudication processes and procedures.
Lecture Hrs = 3, Lab Hrs = 0
Prerequisite: READ 301 or equivalent

CRIJ 1307
Crime in America
American crime problems in historical perspective, social and public policy factors affecting crime, impact and crime trends, social characteristics of specific crimes, and prevention of crime.
Lecture Hrs = 3, Lab Hrs = 0
Prerequisite: READ 301 or equivalent

CRIJ 1310
Fundamentals of Criminal Law
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
Prerequisite: READ 301 or equivalent

CRIJ 1313
Juvenile Justice System
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
Prerequisite: READ 301 or equivalent

CRIJ 2301
Community Resources in Corrections
An introductory study of the role of the community in corrections; community programs for adults and juveniles; administration of community programs; legal issues; future trends in community treatment.
Lecture Hrs = 3, Lab Hrs = 0
Prerequisite: READ 301 or equivalent

CRIJ 2313
Correctional Systems and Practices
Corrections in the criminal justice system; organization of correctional systems; correctional role; institutional operations; alternatives to institutionalization; treatment and rehabilitation; current and future issues.
Lecture Hrs = 3, Lab Hrs = 0
Prerequisite: READ 301 or equivalent

CRIJ 2314
Criminal Investigation
Investigative theory; collection and preservation of evidence; sources of information; interview and interrogation; uses of forensic sciences; case and trial preparation.
Lecture Hrs = 3, Lab Hrs = 0
Prerequisite: READ 301 or equivalent

CRIJ 2323
Legal Aspects of Law Enforcement
Police authority; responsibilities; constitutional constraints; law of arrest, search, and seizure; police liability.
Lecture Hrs = 3, Lab Hrs = 0
Prerequisite: READ 301 or equivalent

CRIJ 2328
Police Systems and Practices
The police profession; organization of law enforcement systems; the police role; police discretion; ethics; police-community interaction; current and future issues.
Lecture Hrs = 3, Lab Hrs = 0
Prerequisite: READ 301 or equivalent

CSME 1248
Principles of Skin Care
An introduction of the theory and practice of skin care.
Lecture Hrs = 0, Lab Hrs = 6, Insurance Fee
Pre/Corequisite: READ 300 or equivalent

CSME 1293
Special Topics in Cosmetic Services, General
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 was designed to be repeated multiple times to improve student proficiency.
Lecture Hrs = 0, Lab Hrs = 6
Prerequisite: CSME 1401
Pre/Corequisite: READ 300 or equivalent

CSME 1330
Orientation to Nail Technology
An overview of the fundamental skills and knowledge necessary for the field of nail technology.
Lecture Hrs = 1, Lab Hrs = 8, Insurance Fee
Pre/Corequisite: READ 300 or equivalent

CSME 1401
Orientation to Cosmetology
An overview of the skills and knowledge necessary for the field of cosmetology.
Lecture Hrs = 2, Lab Hrs = 7, Insurance Fee
Pre/Corequisite: READ 300 or equivalent

CSME 1410
Introduction to Haircutting and Related Theory
Introduction to the theory and practice of hair cutting. Topics include terminology, implements, sectioning and finishing techniques.
Lecture Hrs = 2, Lab Hrs = 7, Insurance Fee
Pre/Corequisite: CSME 1401, READ 300 or equivalent

CSME 1431
Principles of Nail Technology I
A course in the principles of nail technology. Topics include anatomy, physiology, theory, and skills related to nail technology.
Lecture Hrs = 2, Lab Hrs = 8, Insurance Fee
Prerequisite: CSME 1330
Pre/Corequisite: READ 300 or equivalent

CSME 1434
Cosmetology Instructor I
The fundamentals of instructing cosmetology students.
Lecture Hrs = 2, Lab Hrs = 6, Insurance Fee Note: A High School diploma or GED and a valid Texas Cosmetology License is required for admission to this course.
Pre/Corequisite: READ 300 or equivalent

CSME 1435
Orientation to the Instruction of Cosmetology
An overview of the skills and knowledge necessary for the instruction of cosmetology students.
Lecture Hrs = 2, Lab Hrs = 6, Insurance Fee Note: A High School diploma or GED and a valid Texas Cosmetology License is required for admission to this course.
Pre/Corequisite: READ 300 or equivalent

CSME 1441
Principles of Nail Technology II
A continuation of the 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, Insurance Fee
Prerequisite: CSME 1330
Pre/Corequisite: READ 300 or equivalent

CSME 1451
Artistry of Hair, Theory and Practice
Instruction in the artistry of hair design. Topics include theory, techniques, and application of hair design.
Lecture Hrs = 2, Lab Hrs = 6, Insurance Fee
Prerequisite: CSME 1401
Pre/Corequisite: READ 300 or equivalent

CSME 1453
Chemical Reformation and Related Theory
Presentation of the theory and practice of chemical reformation including terminology, application, and workplace competencies.
Lecture Hrs = 2, Lab Hrs = 6, Insurance Fee
Pre/Corequisite: CSME 1401, READ 300 or equivalent

CSME 2237
Advanced Cosmetology Techniques
Mastery of advanced cosmetology techniques including hair designs, professional cosmetology services, and workplace competencies.
Lecture Hrs = 0, Lab Hrs = 6, Insurance Fee
Prerequisite: CSME 1401
Pre/Corequisite: READ 300 or equivalent

CSME 2337
Advanced Cosmetology Techniques
Mastery of advanced cosmetology techniques including hair designs, professional cosmetology services, and workplace competencies.
Lecture Hrs = 1, Lab Hrs = 8 Insurance Fee
Prerequisite: CSME 1401
Pre/Corequisite: READ 300 or equivalent

CSME 2343
Salon Development
Exploration of salon development. Topics include professional ethics and goals, salon operation, and record keeping.
Lecture Hrs = 2, Lab Hrs = 4, Insurance Fee
Prerequisite: CSME 1401
Pre/Corequisite: READ 300 or equivalent

CSME 2401
The Principles of Hair Coloring and Related Theory
Presentation of the theory, practice, and chemistry of hair color. Topics include terminology, application, and workplace competencies related to hair color.
Lecture Hrs = 2, Lab Hrs = 7, Insurance Fee
Prerequisite: CSME 1401
Pre/Corequisite: READ 300 or equivalent

CSME 2410
Advanced Haircutting and Related Theory
Advanced concepts and practice of haircutting. Topics include haircuts utilizing scissors, razor, and/or clippers.
Lecture Hrs = 2, Lab Hrs = 7, Insurance Fee
Prerequisite: CSME 1401
Pre/Corequisite: READ 300 or equivalent

CSME 2414
Cosmetology Instructor II
A continuation of the fundamentals of instructing cosmetology students.
Lecture Hrs = 2, Lab Hrs = 6, Insurance Fee
Prerequisite: CSME 1435
Pre/Corequisite: READ 300 or equivalent

CSME 2415
Cosmetology Instructor III
Presentation of lesson plan assignments and evaluation techniques.
Lecture Hrs = 2, Lab Hrs = 6, Insurance Fee
Prerequisite: CSME 1435
Pre/Corequisite: READ 300 or equivalent

CSME 2439
Advanced Hair Design
Advanced concepts in the theory and practice of hair design.
Lecture Hrs = 2, Lab Hrs = 7, Insurance Fee
Prerequisite: CSME 1401
Pre/Corequisite: READ 300 or equivalent

CSME 2441
Preparation for Texas Cosmetology Commission Examination
Preparation for the Texas Cosmetology Commission Operator Examination.
Lecture Hrs = 2, Lab Hrs = 6, Insurance Fee Note: A High School diploma or GED is required for admission to this course.
Prerequisite: CSME 1401
Pre/Corequisite: READ 300 or equivalent

CSME 2444
Cosmetology Instructor IV
Advanced concepts of instruction in a cosmetology program. Topics include demonstration, development, and implementation of advanced evaluation and assessment techniques.
Lecture Hrs = 2, Lab Hrs = 6, Insurance Fee
Prerequisite: CSME 1435
Pre/Corequisite: READ 300 or equivalent

CSME 2445
Instructional Theory and Clinic Operation
An overview of the objectives required by the Texas Cosmetology Commission Instructor Examination.
Lecture Hrs = 2, Lab Hrs = 6, Insurance Fee
Prerequisite: CSME 1435
Pre/Corequisite: READ 300 or equivalent

CSME 2530
Nail Enhancement
A course in the theory, application, and related technology of artificial nails.
Lecture Hrs = 3, Lab Hrs = 6, Insurance Fee
Prerequisite: CSME 1330
Pre/Corequisite: READ 300 or equivalent

DAAC 1304
Pharmacology of Addiction
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
Prerequisite: READ 300 or equivalent

DAAC 1307
Addicted Family Intervention
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
Prerequisite: READ 300 or equivalent

DAAC 1309
Assessment Skill of Alcohol and Other Drug Addictions
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
Prerequisite: READ 300 or equivalent

DAAC 1311
Counseling Theories
An introduction to major theories of various treatment modalities including Reality therapy, Psychodynamic, 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
Prerequisite: READ 300 or equivalent

DAAC 1314
Dynamics of Group Counseling
An introduction to the patterns and dynamics of group interactions across the life span. Focus includes group counseling, 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 addressed. Case management and record keeping are included.
Lecture Hrs = 3, Lab Hrs = 0
Prerequisite: READ 300 or equivalent

DAAC 1317
Basic Counseling Skills
Facilitate development of the basic counseling 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
Prerequisite: READ 300 or equivalent

DAAC 1319
Introduction to Alcohol and Other Drug Addictions
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, HIPPA Fee
Prerequisite: READ 300 or equivalent

DAAC 1341
Counseling Alcohol and Other Drug Addictions
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
Prerequisite: READ 300 or equivalent

DAAC 1343 Ω
Current Issues
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
Prerequisite: READ 300 or equivalent

DAAC 1391
Special Topics in Alcohol/Drug Abuse Counseling: Advanced Group Skills
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. This course was desinged to be repeated multiple times to improve student proficiency. This course will be a continuation of the study of the patterns and dynamics of group interactions across the life span. Focus includes group therapy, structure, types, stages, development, leadership, therapeutic factors, the effectiveness of group on the individual, group growth and behavior. Effective group facilitation skills, techniques, case management, and record keeping are addressed.
Lecture Hrs = 3, Lab Hrs = 0
Prerequisite: DAAC 1314, READ 300 or equivalent

DAAC 2280
Cooperative Education-Substance Abuse/ Addiction Counseling
Career-related activities encountered in the student's area of specialization offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component.
Lecture Hrs = 1, Lab Hrs = 0, External Hrs = 10, Insurance Fee
Prerequisite: 18 SCH of DAAC Coursework
Pre/Corequisite: READ 300 or equivalent

DAAC 2281
Cooperative Education-Substance Abuse/ Addiction Counseling
Career-related activities encountered in the student's area of specialization offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component.
Lecture Hrs = 1, Lab Hrs = 0, External Hrs = 10, Insurance Fee
Prerequisite: 18 SCH of DAAC Coursework
Pre/Corequisite: READ 300 or equivalent

DFTG 1405
Technical Drafting
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.
Lecture Hrs = 3, Lab Hrs = 3
Pre/Corequisite: READ 301 or equivalent

DFTG 1409
Basic Computer-Aided Drafting
An introduction to computer-aided drafting. Emphasis is placed on setup; creating and modifying geometry; storing and retrieving predefined shapes; placing, rotating, and scaling objects, adding text and dimensions, using layers, coordinate systems, and plot/print to scale.
Lecture Hrs = 3, Lab Hrs = 3
Pre/Corequisite: DFTG 1405, READ 301 or equivalent

DFTG 1417
Architectural Drafting-Residential
Architectural drafting procedures, practices, and symbols. Preparation of detailed working drawings for residential structures. Emphasis on light frame construction methods.
Lecture Hrs = 3, Lab Hrs = 3
Prerequisite: DFTG 1405, DFTG 1409
Pre/Corequisite: DFTG 2419, READ 301 or equivalent

DFTG 1419
Fundamentals of Computer Aided Drafting
The fundamentals of computer aided drafting using an alternative computer aided drafting program. Emphasis is placed on drawing set-up; creating and modifying geometry; storing and retrieving predefined shapes; placing, rotating, and scaling objects; adding text and dimensions; using layers and coordinating systems; as well as using input and output devices. (Microstation).
Lecture Hrs = 3, Lab Hrs = 3
Prerequisite: DFTG 1405, DFTG 1409
Pre/Corequisite: DFTG 2419, READ 301 or equivalent

DFTG 1433
Mechanical Drafting
Detail drawings with proper dimensioning and tolerances, use of sectioning techniques, common fasteners, pictorial drawings, including bill of materials. (Fall and Spring only)
Lecture Hrs = 3, Lab Hrs = 3
Prerequisite: DFTG 1405, DFTG 1409
Pre/Corequisite: DFTG 2419, READ 301 or equivalent

DFTG 1458
Electrical/Electronics Drafting
Electronic drawings stressing modern representation used for 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
Prerequisite: DFTG 1405, DFTG 1409
Pre/Corequisite: DFTG 2419, READ 301 or equivalent

DFTG 2400
Intermediate Architectural Drafting-Residential
Continued application of principles and practices used in residential construction.
Lecture Hrs = 3, Lab Hrs = 3
Prerequisite: DFTG 1405, DFTG 1409
Pre/Corequisite: DFTG 2419, READ 301 or equivalent

DFTG 2408
Instrumentation Drafting
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
Prerequisite: DFTG 1405, DFTG 1409
Pre/Corequisite: DFTG 2419, READ 301 or equivalent

DFTG 2410
Structural Drafting
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
Prerequisite: DFTG 1405, DFTG 1409
Pre/Corequisite: DFTG 2419, READ 301 or equivalent

DFTG 2419
Intermediate Computer - Aided Drafting
A continuation of practices and techniques used in basic computer-aided drafting emphasizing ad-

vanced dimensioning techniques, the development and use of prototype drawings, construction of pictorial drawings, construction of 3 dimensional drawings, interfacing 2d and 3d environments and extracting data.
Lecture Hrs = 3, Lab Hrs = 3
Prerequisite: DFTG 1405, DFTG 1409
Pre/Corequisite: READ 301 or equivalent

DFTG 2421
Topographical Drafting
Plotting of surveyors field notes. Includes drawing elevations, contour lines, plan and profiles, and laying out traverses.
Lecture Hrs = 3, Lab Hrs = 3
Prerequisite: DFTG 1405, DFTG 1409
Pre/Corequisite: DFTG 2419, READ 301 or equivalent

DFTG 2423
Pipe Drafting
A study of pipe fittings, symbols, specifications and their applications to a piping process system. Creation of symbols and their usage in flow diagrams, plans, elevations, and isometrics. (Spring only)
Lecture Hrs = 3, Lab Hrs = 3
Prerequisite: DFTG 1405, DFTG 1409
Pre/Corequisite: DFTG 2419, READ 301 or equivalent

DFTG 2427
Landscape Drafting
A study of site planning and landscape design.
Lecture Hrs = 3, Lab Hrs = 3
Prerequisite: DFTG 1405, DFTG 1409
Pre/Corequisite: DFTG 2419, READ 301 or equivalent

DFTG 2428
Architectural Drafting-Commercial
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
Prerequisite: DFTG 1417
Pre/Corequisite: READ 301 or equivalent

DFTG 2430
Civil Drafting
An in-depth study of drafting methods and principles used in civil engineering.
Lecture Hrs = 3, Lab Hrs = 3
Prerequisite: DFTG 1405, DFTG 1409
Pre/Corequisite: DFTG 2419, READ 301 or equivalent

DFTG 2431
Advanced Technologies in Architectural Design and Drafting
Use of architectural specific software to execute the elements required in designing standard architectural exhibits utilizing custom features to create walls, windows and specific design requirements for construction in residential/commercial and industrial architecture.
Lecture Hrs = 3, Lab Hrs = 3
Prerequisite: DFTG 1417
Pre/Corequisite: READ 301 or equivalent

DFTG 2432
Advanced Computer-Aided Drafting
Advanced techniques, including the use of a customized system. Presentation of advanced drawing applications, such as three-dimensional solids modeling and linking graphic entities to external non-graphic data. (Fall only)
Lecture Hrs = 3, Lab Hrs = 3
Prerequisite: DFTG 2419
Pre/Corequisite: READ 301 or equivalent

DFTG 2435
Advanced Technologies in Mechanical Design and Drafting
Use parametric based mechanical design software for mechanical assembly design and drafting. (Summer only)
Lecture Hrs = 3, Lab Hrs = 3
Prerequisite: DFTG 1433
Pre/Corequisite: READ 301 or equivalent

DFTG 2438
Final Project-Advanced Drafting
A drafting course in which students participate in a comprehensive project from conception to conclusion.
Lecture Hrs = 3, Lab Hrs = 3
Prerequisite: DFTG 2419
Pre/Corequisite: READ 301 or equivalent

DFTG 2440
Solid Modeling/Design
A computer-aided modeling course. Development of three-dimensional drawings and models from engineering sketches and orthographic drawings and utilizaton of three-dimensional models in design work.
Lecture Hrs = 3, Lab Hrs = 3
Prerequisite: DFTG 2419
Pre/Corequisite: READ 301 or equivalent

DFTG 2442
Aeronautical Drafting
A study of aeronautical drawings required in the aircraft and aerospace industries.
Lecture Hrs = 3, Lab Hrs = 3
Prerequisite: DFTG 1405, DFTG 1409
Pre/Corequisite: DFTG 2419, READ 301 or equivalent

DFTG 2445
Advanced Pipe Drafting
A continuation of pipe drafting concepts building on the basic principles acquired in pipe drafting. (Summer only)
Lecture Hrs = 3, Lab Hrs = 3
Prerequisite: DFTG 2419, DFTG 2423
Pre/Corequisite: READ 301 or equivalent

DFTG 2459
Technical Presentations
Presentation techniques and methods used in the drafting field.
Lecture Hrs = 3, Lab Hrs = 3
Prerequisite: DFTG 2419
Pre/Corequisite: READ 301 or equivalent

Ω indicates courses taught with optional honors contracts.
Σ indicates honors courses. See page 14 for additional information on the honors program.

DFTG 2486
Internship - Drafting and Design Technology/Technician, General
A work-based learning experience that enables the student to apply specialized occupational theory, skills and concepts. A learning plan is developed by the college and the employer.
Lecture=0, Lab=0, Clinical 20
Prerequisite: DFTG 2419
Pre/Corequisite: READ 301 or equivalent

DRAM 1120
Theatre Arts Lab 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 two times.
Lecture Hrs = 0, Lab Hrs = 6
Prerequisite: READ 300 or equivalent

DRAM 1121
Theater Arts Lab II
Open to all students interested in theatre. Credit is earned for acting, technical work, or other participation. Limited to one semester credit hour. Each course may be taken up to two times.
Lecture Hrs = 0, Lab Hrs = 6
Prerequisite: READ 301 or equivalent

DRAM 1310
Introduction to the Theatre
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
Prerequisite: READ 300 or equivalent

DRAM 1330
Elementary Stagecraft
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
Prerequisite: READ 300 or equivalent

DRAM 1341
Principles of Theatrical Makeup
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
Prerequisite: READ 300 or equivalent

DRAM 1351
Introduction to Acting
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
Prerequisite: READ 300 or equivalent

DRAM 1352
Advanced Acting
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
Prerequisite: DRAM 1351, READ 300 or equivalent

DRAM 2120 Ω
Theatre Arts Lab III
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 two times.
Lecture Hrs = 0, Lab Hrs = 6
Prerequisite: READ 300 or equivalent

DRAM 2121
Theater Arts Lab IV
Open to all students interested in theatre. Credit is earned for acting, technical work or other participation. Course can be taken up to two times.
Lecture Hrs = 0, Lab Hrs = 6
Pre/Corequisite: READ 300 or equivalent

DRAM 2189
Theatre Academic Cooperative
Individualized instruction or supervised projects in various areas of theatre.
Lecture Hrs = 0, Lab Hrs = 0, External Hrs = 6
Pre/Corequisite: READ 300 or equivalent

DRAM 2331
Advanced Stagecraft
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
Prerequisite: DRAM 1330, READ 300 or equivalent

DRAM 2336
Voice and Diction
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 SPCH 1342.
Lecture Hrs = 3, Lab Hrs = 0
Prerequisite: READ 300 or equivalent

DRAM 2361
History of Theatre 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
Prerequisite: READ 300 or equivalent

DRAM 2362
History of Theatre II
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
Prerequisite: READ 300 or equivalent

DRAM 2366 Σ
History and Development of Motion Pictures
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
Prerequisite: READ 300 or equivalent

ECON 2301
Principles of Economics: Macroeconomics
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
Prerequisite: READ 301 or equivalent, MATH 310 or equivalent

ECON 2302
Principles of Economics-Microeconomics
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
Prerequisite: READ 301 or equivalent, MATH 310 or equivalent

EDUC 1300
Learning Framework
A study of the 1) research and theory in the psychology of learning, cognition, and motivation, 2) factors that impact learning, and 3) application of learning strategies. Theoretical models of strategic learning and motivation serve as the conceptual basis for the introduction of college-level student academic strategies.
Lecture Hrs = 3, Lab Hrs = 0
Prerequisite: READ 301 or equivalent

EDUC 1301
Introduction to the Teaching Profession
An enriched integrated pre-service course that intnroduces and analyzes the culture of schooling and classrooms, as well as actively recruits students interested in teaching, especially in high need areas. The course includes a minimum of 30 contact hours with field observations of P-12 schools and aligns with the State Board for Education Certification Pedagogy and Professional Responsibilities.
Lecture Hrs = 2, Lab Hrs = 2
Prerequisite: READ 301 or equivalent

EDUC 2301
Introduction to Special Populations
An enriched integrated pre-service course with content experience that provides an overview of schooling and classrooms from the perspectives of language, gender, socioeconomic status, ethnic, and academic diversity and equity with an emphasis on learning. The course includes a minimum of 30 contact hours with field observations of P-12 special populations and aligns with the State Board of Education Certification Pedagogy and Professional Responsibilities.
Lecture Hrs = 2, Lab Hrs = 2
Prerequisite: EDUC 1301, READ 302 or equivalent

ELPT 1321
Introduction to Electrical Safety and Tools
Safety rules and regulations. Includes the selection, inspection, use, and maintenance of common tools for electricians.
Lecture Hrs = 3, Lab Hrs = 0
Pre/Corequisite: READ 300 or equivalent

ELPT 1325
National Electrical Code I
An introductory study of the National Electric Code (NEC) for those employed in fields requiring knowledge of the Code. Emphasis on wiring design, protection, methods, and materials; equipment for general use; and basic calculations.
Lecture Hrs = 3, Lab Hrs = 0
Pre/Corequisite: READ 300 or equivalent

ELPT 1419
Fundamentals of Electricity I
An introduction to basic direct current (DC) theory including electron theory and direct current applications.
Lecture Hrs = 3, Lab Hrs = 3
Pre/Corequisite: READ 300 or equivalent

ELPT 1420
Fundamentals of Electricity II
Introduces to alternating current (AC). Includes AC voltage, frequency, mechanical and electrical degrees, waveforms, resistors, capacitors, and inductors.
Lecture Hrs = 3, Lab Hrs = 3
Prerequisite: ELPT 1419
Pre/Corequisite: READ 300 or equivalent

ELPT 1441
Motor Control
Operating principles of solid-state conventional controls along with their practical applications. Includes braking, jogging, plugging, and safety interlocks wiring, and schematic diagram interpretations.
Lecture Hrs = 3, Lab Hrs = 3
Prerequisite: ELPT 1419
Pre/Corequisite: READ 300 or equivalent

ELPT 1445
Commercial Wiring
Commercial wiring methods. Includes overcurrent protection, raceway panel board installation, proper grounding techniques, and associated safety procedures.
Lecture Hrs = 3, Lab Hrs = 3
Pre/Corequisite: READ 300 or equivalent

ELPT 1455
Electronic Applications
Electronic principles and the use of electronic devices. Includes diodes, transistors, and rectifires.
Lecture Hrs = 3, Lab Hrs = 3
Prerequisite: ELPT 1419
Pre/Corequisite: READ 300 or equivalent

ELPT 1457
Industrial Wiring
Wiring methods used for industrial installations. Includes motor circuits, raceway and bus way installations, proper grounding techniques, and associated safety procedures.
Lecture Hrs = 3, Lab Hrs = 3
Pre/Corequisite: READ 300 or equivalent

ELPT 2301
Journeyman Electrician Exam Review
Preparation for journeyman electrician licensure with emphasis on calculations and the National Electrical Code (NEC).
Lecture Hrs = 3, Lab Hrs = 0
Pre/Corequisite: READ 300 or equivalent

ELPT 2319
Programmable Logic Controllers I
Fundamental concepts of programmable logic controllers, principles of operation, and numbering systems as applied to electrical controls.
Lecture Hrs = 2, Lab Hrs = 2
Pre/Corequisite: ELPT 1420, READ 300 or equivalent

ELPT 2325
National Electrical Code II
In-depth coverage of the National Electric 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
Pre/Corequisite: READ 300 or equivalent

ELPT 2331
AC/DC Drives
Installation and maintenance of alternating current (AC) and direct current (DC) variable speed drives with emphasis on application, operating characteristics, and troubleshooting techniques.
Lecture Hrs = 2, Lab Hrs = 2
Prerequisite: ELPT 2405
Pre/Corequisite: READ 300 or equivalent

ELPT 2355
Programmable Logic Controllers II
Advanced concepts in programmable logic controllers and their applications and interfacing to industrial controls.
Lecture Hrs = 3, Lab Hrs = 0
Prerequisites: ELPT 2319 or ELPT 1455
Pre/Corequisite: READ 300 or equivalent

ELPT 2405
Motors and Transformers
Operation of single-and three-phase motors and transformers. Includes transformer banking, power factor correction, and protective devices.
Lecture Hrs = 3, Lab Hrs = 3
Prerequisite: ELPT 1420
Pre/Corequisite: READ 300 or equivalent

ENGL 301
Fundamentals of Writing 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
Pre/Corequisite: READ 300 or equivalent

ENGL 302
Fundamentals of Writing II
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
Prerequisite: ENGL 301 or ESOL 301; READ 300 or equivalent

ENGL 311
Fundamentals of Reading and Writing for Non-Native Speakers 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
Prerequisite: READ 300 or equivalent

ENGL 312
Fundamentals of Reading and Writing Non-Native Speakers II
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
Prerequisite: ENGL 311, READ 300 or equivalent

ENGL 1301 Σ
English Composition 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
Prerequisite: ENGL 302 or equivalent, READ 302 or equivalent

ENGL 1302 ΩΣ
English Composition II
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
Prerequisite: ENGL 1301 (C or better), READ 302 or equivalent

ENGL 2189D
Manuals and Documents
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
Prerequisite: READ 300 or equivalent

ENGL 2189F
Feature Writing
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
Pre/Corequisite: ENGL 2311

ENGL 2189I
International Technical Communications
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
Prerequisite: ENGL 2311

Ω indicates courses taught with optional honors contracts.
Σ indicates honors courses. See page 14 for additional information on the honors program.

ENGL 2189L
Legal Writing
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
Pre/Corequisite: ENGL 2311

ENGL 2189M
Medical Writing
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
Prerequisite: READ 300 or equivalent

ENGL 2189N
Newsletter Writing & Production
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
Pre/Corequisite: ENGL 2311, COMM 2305

ENGL 2189S
Science Writing
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
Prerequisite: ENGL 2311

ENGL 2307 Ω
Creative Writing
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
Prerequisite: ENGL 1302, READ 302 or equivalent

ENGL 2308 Ω
Creative Writing
Same as ENGL 2307 but more advanced.
Lecture Hrs = 3, Lab Hrs = 0
Prerequisite: ENGL 2307, READ 302 or equivalent

ENGL 2311 Ω
Technical Writing
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
Prerequisite: ENGL 302 or equivalent, READ 301 or equivalent

ENGL 2315 Ω
Advanced Technical Writing
A course designed to train students to deal with special communications 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 communiation process. Serves as the capstone course for professional writing majors.
Lecture Hrs = 3, Lab Hrs = 0
Prerequisite: ENGL 2311

ENGL 2322 Ω
English Literature: Beowulf to Romantic
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.
Lecture Hrs = 3, Lab Hrs = 0
Prerequisite: ENGL 1302, READ 302 or equivalent

ENGL 2323 Ω
English Literature: Romantic to Present
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.
Lecture Hrs = 3, Lab Hrs = 0
Prerequisite: ENGL 1302, READ 302 or equivalent

ENGL 2326 Ω
American Literature Survey
A general study of the significant writers and movements of American literature from its origins to the present.
Lecture Hrs = 3, Lab Hrs = 0
Prerequisite: ENGL 1302, READ 302 or equivalent

ENGL 2327 ΩΣ
American Literature to 1860
A general survey of the major works in American literature from its origins to 1860.
Lecture Hrs = 3, Lab Hrs = 0
Prerequisite: ENGL 1302, READ 302 or equivalent

ENGL 2328 ΩΣ
American Literature-1860 to Present
A general survey of the major works in American literature from 1860 to the present.
Lecture Hrs = 3, Lab Hrs = 0
Prerequisite: ENGL 1302, READ 302 or equivalent

ENGL 2331 Ω
Cross-Cultural Literature
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.
Lecture Hrs = 3, Lab Hrs = 0
Prerequisite: ENGL 1302, READ 302 or equivalent

ENGL 2332 Ω
World Literature - Greeks to Renaissance
A study of the masterpieces of western world literature, from the ancient Greek classics through the early Renaissance.
Lecture Hrs = 3, Lab Hrs = 0
Prerequisite: ENGL 1302, READ 302 or equivalent

ENGL 2333 Ω
World Literature-Fifteenth Century to the Present
A study of the masterpieces of western world literature from Shakespeare through the present.
Lecture Hrs = 3, Lab Hrs = 0
Prerequisite: ENGL 1302, READ 302 or equivalent

ENGL 2341 Ω
Forms of Literature
The study of one or more literary genres including, but not limited to, poetry, fiction, drama, and film.
Lecture Hrs = 3, Lab Hrs = 0
Prerequisite: ENGL 1302, READ 302 or equivalent

ENGR 1304
Engineering Graphics I
Engineering graphics is a general course for all types of engineering. Its practical and technical content is essential for engineers, designers and manufacturers. In many other vocations, a knowledge of working drawings and the techniques of engineering drawing are of inestimable value. Students who register for engineering graphics will require a complete set of drafting instruments which meet the approval of the instructor in charge. Care and use of instruments, freehand lettering, geometric construction, orthographic projection, technical sketching, pictorial drawing, dimensioning, solutions to engineering problems, details and assemblies, and blueprinting.
Lecture Hrs = 2, Lab Hrs = 4
Prerequisite: MATH 1414
Pre/Corequisite: READ 302 or equivalent

ENGR 1305
Engineering Graphics II
Engineering applications of problems relating to points, lines, planes, solids, intersections of planes and solids, development of surfaces, perspectives, auxiliary view, and double curved and warped surfaces.
Lecture Hrs = 2, Lab Hrs = 4
Prerequisite: ENGR 1304
Pre/Corequisite: READ 302 or equivalent

ENGR 2301
Engineering Statics
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.
Lecture Hrs = 3, Lab Hrs = 0
Prerequisite: MATH 2413
Pre/Corequisite: PHYS 2425, READ 302 or equivalent

ENGR 2302
Engineering Dynamics
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.
Lecture Hrs = 3, Lab Hrs = 0
Prerequisite: ENGR 2301
Pre/Corequisite: READ 302 or equivalent

ENVR 1401 Ω
Environmental Science
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 = 3
Pre/Corequisite: MATH 310, READ 302 or equivalent

ESOL 300
ESOL Developmental Written Communication I
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. Credit for this course is not transferable. TSI regulations for developmental requirements apply.
Lecture Hrs = 3, Lab Hrs = 0
Pre/Corequisite: READ 300 or equivalent

ESOL 301
ESOL Developmental Written Communication II
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. Although the course may include some speaking, the emphasis is on developing writing skills. Credit for this course is not transferable. TSI regulations for developmental requirements apply.
Lecture Hrs = 3, Lab Hrs = 0
Pre/Corequisite: READ 300 or equivalent

ESOL 302
ESOL Developmental Written Communication III
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. TSI regulations for developmental requirements apply.
Lecture Hrs = 3, Lab Hrs = 0
Pre/Corequisite: READ 300 or equivalent

ESOL 303
ESOL Developmental Oral Communication I
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. TSI regulations for developmental requirements apply.
Lecture Hrs = 3, Lab Hrs = 0
Pre/Corequisite: READ 300 or equivalent

ESOL 304
ESOL Developmental Oral Communication II
An intermediate course in spoken English for students who are native speakers in 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. TSI regulations for developmental requirements apply.
Lecture Hrs = 3, Lab Hrs = 0
Pre/Corequisite: READ 300 or equivalent

ESOL 305
ESOL Developmental Oral Communication III
An advanced course in spoken English for students who are native speakers of languages other than English. Students receive extensive practice and assistance in 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. TSI regulations for developmental requirements apply.
Lecture Hrs = 3, Lab Hrs = 0
Pre/Corequisite: READ 300 or equivalent

GEOG 1300
Introduction to College Geography
The world and its climate regions, its resources, and man's use of the earth and its resources.
Lecture Hrs = 3, Lab Hrs = 0
Pre/Corequisite: READ 301 or equivalent

GEOG 1303
World Regional Geography
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
Prerequisite: READ 301 or equivalent, ENGL 301 or equivalent

GEOL 1301
Earth Science
Survey of physical sciences with emphasis on the earth's ecological and geological processes. Note: Students are advised to complete their science requirements before attempting this course.
Lecture Hrs = 3, Lab Hrs = 0
Prerequisite: READ 301 or equivalent

GEOL 1403
Physical Geology
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
Pre/Corequisite: READ 301 or equivalent

GEOL 1404
Historical Geology
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
Pre/Corequisite: READ 301 or equivalent

GEOL 1405
Environmental Geology
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
Pre/Corequisite: READ 301 or equivalent

GERS 1301
Introduction to Gerontology
Overview of the social, psychological, and biological changes that accompany aging, and the implications of these changes for the individual, as well as for the larger society.
Lecture Hrs = 3, Lab Hrs = 3
Pre/Corequisite: READ 300 or equivalent

GERS 1302
Directing Activities in Long-Term Care Environments
Exploration of the role of the activity director in long-term care facilities. Topics include the assessment of client needs, development of care plans, design of programs using therepeutic recreation techniques, and the supervision of recreation personnel.
Lecture Hrs = 3, Lab = 0
Pre/Corequisite: READ 300 or equivalent

GERS 1303
Fitness and Wellness for Aging Populations
Healthy aging and welness promotion for the older adult. Includes an overview of the aging process and its effect on major body systems. Also addresses various wellness practices, including lifestyle changes and exercise/nutrition planning. Emphasizes issues involving attitude and social interaction, as well as recommendations for home safety and personal security. Projects in wellness planning and resource location will be discussed.
Lecture Hrs = 3, Lab Hrs = 0
Pre/Corequisite: READ 300 or equivalent

GERS 1306
Practical Eldercare Skills
Health management and hands-on skills for becoming caregivers and/or assisting caregivers of elderly people with health problems.
Lecture Hrs = 3, Lab Hrs = 0
Pre/Corequisite: READ 300 or equivalent

Ω indicates courses taught with optional honors contracts.
Σ indicates honors courses. See page 14 for additional information on the honors program.

GERS 1342
Aging and Mental Health
Introduction and analysis of current knowledge and concerns related to psychological aging. Includes the theoretical and empirical foundations relevant to the psychological study of the later part of the life span. The course is taught from an interdisciplinary perspective and focuses on topics related to perceptual, cognitive, personality, and interpersonal social development. Examination of issues related to psychological adjustment and death and dying.
Lecture Hrs = 1, Lab Hrs = 0
Pre/Corequisite: READ 300 or equivalent

GERS 2330
Issues of Long-Term Care
Exploration of current information regarding a variety of long-term care settings for the elderly.
Lecture Hrs = 3, Lab Hrs = 0
Pre/Corequisite: READ 300 or equivalent

GERS 2366
Practicum (or Field Experience) - Adult Development and Aging
Practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student.
Lecture Hrs = 0, Lab Hrs = 0, Clinical Hrs = 22
Pre/Corequisite: READ 300 or equivalent

GOVT 2301 Ω
American Government I
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
Prerequisite: ENGL 301 or equivalent, READ 302 or equivalent

GOVT 2302 Ω
American Government II
United States and Texas executive, legislative, and judicial branches, governmental finance, foreign policy, and county and municipal government.
Lecture Hrs = 3, Lab Hrs = 0
Prerequisite: ENGL 301 or equivalent, READ 302 or equivalent

HIST 1301 ΩΣ
History of the United States to 1877
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
Prerequisite: ENGL 301 or equivalent, READ 302 or equivalent

HIST 1302 ΩΣ
History of the United States Since 1877
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
Prerequisite: ENGL 301 or equivalent, READ 302 or equivalent

HIST 2301 Ω
History of Texas
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
Prerequisite: ENGL 301 or equivalent, READ 302 or equivalent

HIST 2321 Ω
History of World Civilizations to 1500
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
Prerequisite: ENGL 301 or equivalent, READ 302 or equivalent

HIST 2322 Ω
History of World Civilizations from 1500 to Present
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
Prerequisite: ENGL 301 or equivalent, READ 302 or equivalent

HITT 1301
Health Data Content and Structure
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
Prerequisite: READ 300 or equivalent

HITT 1305
Medical Terminology
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
Prerequisite: READ 301 or equivalent

HITT 1341
Coding and Classification Systems
Application of basic coding rules, principles, guidelines, and conventions.
Lecture Hrs = 2, Lab Hrs = 2
Prerequisite: HITT 1305, READ 301 or equivalent

HITT 1345
Health Care Delivery Systems
Introduction to organization, financing, and delivery of health care services, accreditation, licensure, and regulatory agencies.
Lecture Hrs = 3, Lab Hrs = 0
Prerequisite: READ 300 or equivalent

HITT 1349
Pharmacology
Overview of the basic concepts of the pharmacological treatment of various diseases affecting major body systems.
Lecture Hrs = 3, Lab Hrs = 0
Prerequisite: READ 301 or equivalent
Pre/Corequisite: HITT 1305

HITT 1353
Legal and Ethical Aspects of Health Information
Concepts of confidentiality, ethics, health care legislation, and regulations relating to the maintenance and use of health information.
Lecture Hrs = 3, Lab Hrs = 0, HIPPA Fee
Prerequisite: READ 300 or equivalent

HITT 1355
Health Care Statistics
General principles of health care statistics with emphasis in hospital statistics. Skill development in computation and calculation of health data.
Lecture Hrs = 3, Lab Hrs = 0
Prerequisite: MATH 310 or equivalent, READ 300 or equivalent

HITT 2160
Clinical-Health Information/Medical Records Technology/Technician
A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional.
Lecture Hrs = 0, Lab Hrs = 0, External Lab = 6, Insurance Fee
Prerequisite: HITT 1301, HITT 1341, HITT 1345, MRMT 1307, READ 300 or equivalent

HITT 2161
Clinical-Health Information/Medical Records Technology/Technician
A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional.
Lecture Hrs = 0, Lab Hrs = 0, External Lab Hrs = 6, Insurance Fee
Prerequisite: READ 300 or equivalent
Pre/Corequisite: HITT 2335

HITT 2260
Clinical-Health Information/Medical Records Technology/Technician
A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional.
Lecture Hrs = 0, Lab Hrs = 0, External Lab = 8, Insurance Fee
Prerequisite: HITT 2160, READ 300 or equivalent
Pre/Corequisite: HITT 1353, HITT 1355

HITT 2261
Clinical - Health Information/Medical Records Technology/Technician
A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional.
Lecture Hrs = 0, Lab Hrs = 0, External Lab = 8, Insurance Fee
Prerequisite: HITT 2260, READ 300 or equivalent
Pre/Corequisite: HITT 2343

HITT 2335
Coding and Reimbursement Methodologies
Development of advanced coding techniques with emphasis on case studies, health records, and federal regulations regarding prospective payment systems and methods of reimbursement.
Lecture Hrs = 2, Lab Hrs = 2
Prerequisite: HITT 1341, READ 300 or equivalent

HITT 2339
Health Information Organization and Supervision
Principles of organization and supervision of human, fiscal, and capital resources.
Lecture Hrs = 3, Lab Hrs = 0
Prerequisite: READ 300 or equivalent

HITT 2343
Quality Assessment and Performance Improvement
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
Prerequisite: READ 300 or equivalent

HRPO 1311
Human Relations
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
Prerequisite: READ 301 or equivalent

HUMA 1301 ΩΣ
Introduction to the Humanities I
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, physical sciences and communication as they have contributed to that cultural legacy.
Lecture Hrs = 3, Lab Hrs = 0
Prerequisite: READ 301 or equivalent, ENGL 302 or equivalent

HUMA 1302 ΩΣ
Introduction to the Humanities II
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 the social sciences, history, mathematics, medicine, and the physical sciences as they have contributed to that cultural legacy.
Lecture Hrs = 3, Lab Hrs = 0
Prerequisite: READ 301 or equivalent, ENGL 302 or equivalent

HYDR 1345
Hydraulics and Pneumatics
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 = 0
Prerequisite: READ 300 or equivalent

IBUS 1305
Introduction to International Business and Trade
The techniques for entering the international marketplace. Emphasis on the impact and dynamics of sociocultural, demographic, economic, technological, and political-legal factors in the foreign trade environment. Topics include patterns of world trade, internationalization of the firm, and operating procedures of the multinational enterprise.
Lecture Hrs = 3, Lab Hrs = 0
Prerequisite: READ 301 or equivalent

IMED 1401
Introduction to Multimedia
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
Prerequisite: READ 301 or equivalent

INEW 2334
Advanced Web Page Programming
Advanced applications for Web authoring. Topics may 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
Prerequisite: ITSE 2302, READ 301 or equivalent

INTC 1305
Introduction to Electronic Instrumentation
A survey of the instrumentation field and the professional requirements of the instrumentation technician, including an introduction to computer and calculator applications involved in basic electronic circuit analysis. Safety applications and fundamental math applications are included.
Lecture Hrs = 3, Lab Hrs = 0
Prerequisite: READ 300 or equivalent

INTC 1312
Introduction to Instrumentation and Safety Technology
An overview of industries employing instrument technicians. Course also covers instrument safety techniques and practices as applied to the instrumentation field.
Lecture Hrs = 3, Lab Hrs = 0
Prerequisite: READ 300 or equivalent

INTC 1343
Application of Industrial Automatic Control
A study of automatic process control including measuring devices, analog and digital instrumentation, signal transmitters, 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. 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
Prerequisite: INTC 1456, READ 300 or equivalent

INTC 1425
Instrument Hardware Installation I
Introduces installation of instrument to the accepted methods for the mounting instrumentation equipment. Also addressed are aspects of introducing a piece of instrumentation equipment into the process environment.
Lecture Hrs = 3, Lab Hrs = 3
Prerequisite: READ 300 or equivalent

INTC 1441
Principles of Automatic Control
A study of the theory of basic measurements, automatic control systems and design, closed loop systems, recorders, controllers, feedback, control modes and control configurations.
Lecture Hrs = 3, Lab Hrs = 3
Prerequisite: READ 300 or equivalent

INTC 1456
Instrumentation Calibration
A study of techniques for calibrating electronic and pneumatic transmitters, controllers, recorders, valves, and valve positioners including tear down, assembly, alignment, and calibration of equipment.
Lecture Hrs = 3, Lab Hrs = 3
Prerequisite: READ 300 or equivalent

INTC 2339
Critique of Instrument and Control
An overview of instruments and control stressing preparation for industry employment testing and either the National Institute of Engineering Technologist Certification (Level 2) or the Instrumentation Systems and Automation Certified Control Systems Technician Level I Certificate (ISA CCST).
Lecture Hrs = 3, Lab Hrs = 0
Prerequisite: INTC 1343, READ 300 or equivalent

INTC 2405
Instrument Hardware Installation II
A continuation of Hardware Instrumentation I. Students will improve istrumentation skills in tubing and piping, measuring, layout, welding, and testing. Also covers instrumentation wiring, circuitry, heat tracing, chemical treatment and craft related trigonometry.
Lecture Hrs = 3, Lab Hrs = 3
Prerequisite: READ 300 or equivalent

INTC 2436
Distributed Control and Programmable Logic
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 advanced 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
Prerequisite: INTC 1441, READ 300 or equivalent

INTC 2450
Fieldbus Process Control Systems
A comprehensive view into the field of instrument technicians with regards to fieldbus systems. Fieldbus equipment and systems with the theory, applications and hands-on experiences preparing the student for the installation and maintenance of this apparatus will be introduced.
Lecture Hrs = 3, Lab Hrs = 3
Prerequisite: INTC 1441, READ 300 or equivalent

ITCC 1402
CCNA 1: Networking Basics
A course introducing the basics of networking including network terminology, local area networks (LAN) and wide area networks (WAN). Topics include network protocols such as TCP/IP, Open System Interconnection (OSI) models, cabling and routers.
Lecture Hrs = 3, Lab Hrs = 3
Prerequisite: READ 300 or equivalent

ITCC 1406
CCNA 2: Router and Routing Basics
An introduction to basic Cisco router configuration for local area networks. Topics include initial router configuration for TCP/IP, management of Cisco IOS and router configuration files, routing protocols, and access control lists.
Lecture Hrs = 3, Lab Hrs = 3
Prerequisite: ITCC 1402, READ 300 or equivalent

ITCC 1442
CCNA 3: Switching Basic and Intermediate Routing
A course focusing on advanced topics including IP addressing techniques, intermediate routing protocols, CLI configuration of switches, Ethernet switching, VLANs, Spanning Tree Protocol, and VLAN Trunking Protocol.
Lecture Hrs = 3, Lab Hrs = 3
Prerequisite: ITCC 1406, READ 300 or equivalent

ITCC 1446
CCNA 4: WAN Technologies
This course focuses on advanced IP addressing techniques (Network Address Translation [NAT], Port Address Translation [PAT], and DHCP), WAN technology and terminology, PPP, ISDN, DDR, Frame Relay, network management and introduction to optical networking. In addition, the student will prepare for the CCNA exam.
Lecture Hrs = 3, Lab Hrs = 3
Prerequisite: ITCC 1442, READ 300 or equivalent

Ω indicates courses taught with optional honors contracts.
Σ indicates honors courses. See page 14 for additional information on the honors program.

ITNW 1337
Introduction to the Internet
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
Pre/Corequisite: ITSC 1309, READ 300 or equivalent

ITNW 1445
Implementing Network Directory Services
Provides students with the knowledge and skills necessary to install, configure, and administer Network Directory service.
Lecture Hrs = 3, Lab Hrs = 3
Prerequisite: CPMT 1449, READ 300 or equivalent

ITSC 1309
Integrated Software Applications I
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
Pre/Corequisite: READ 301 or equivalent

ITSC 1313
Internet/Web Page Development
Instruction in the use of Internet services and the fundamentals of web page design and web site development.
Lecture Hrs = 2, Lab Hrs = 2
Prerequisite: ITSC 1309 or COSC 1301, READ 301 or equivalent

ITSC 1321
Intermediate PC Operating Systems
Continued study in advanced installation and configuration troubleshooting, advanced file management, memory and storage management. Update peripheral device drivers, and use of utilities to increase system performance.
Lecture Hrs = 2, Lab Hrs = 2
Prerequisite: READ 301 or equivalent

ITSC 1364
Practicum (or Field Experience) Computer and Information Sciences, General
Practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student.
Lecture Hrs = 0, Lab Hrs = 0, External Hrs = 21
Prerequisite: 12 or more SCH of Coursework in COSC, CPMT, ITSC, ITCC, ITSE, and/or ITSW courses, READ 301 or equivalent

ITSE 1310
Pascal Programming
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
Prerequisite: READ 301 or equivalent

ITSE 1331
Introduction to Visual BASIC Programming
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
Prerequisite: READ 301 or equivalent

ITSE 1350
System Analysis and Design
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
Prerequisite: Any Programming Course (COSC 1436, COSC 1437, ITSE 1310, ITSE 1331, ITSE 2317, ITSE 2349, and/or ITSE 2359), READ 301 or equivalent

ITSE 2302
Intermediate Web Programming
Intermediate applications for web authoring. Topics may include server side include (SSI), Perl, HTML, Java applets, Javascript, and/or ASP.
Lecture Hrs = 2, Lab Hrs = 2
Prerequisite: ITNW 1337, READ 301 or equivalent

ITSE 2309
Database Programming
Database development using database programming techniques emphasizing database structures, modeling, and database access.
Lecture Hrs = 2, Lab Hrs = 2
Prerequisite: ITSC 1309 or COSC 1301, READ 301 or equivalent

ITSE 2317
JAVA Programming
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
Prerequisite: COSC 1301 or ITSC 1309, READ 301 or equivalent

ITSE 2349
Advanced Visual BASIC Programming
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
Prerequisite: ITSE 1331, READ 301or equivalent

ITSE 2359
Advanced Computer Programming
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
Prerequisite: Any Programming Course (COSC 1436, COSC 1437, ITSE 1310, ITSE 1331,ITSE 2317 and/or ITSE 2349), READ 301 or equivalent

ITSE 2413
Web Authoring
Instruction in designing and developing web pages that incorporate text, graphics, and other supporting elements using current technologies and authoring tools.
Lecture Hrs = 3, Lab Hrs = 3
Prerequisite: ITNW 1337, READ 301 or equivalent
Pre/Corequisite: ITSE 2309

ITSW 1304
Introduction to Spreadsheets
Instruction in the concepts, procedures, and application of electronic spreadsheets.
Lecture Hrs = 2, Lab Hrs = 2
Prerequisite: READ 301 or equivalent
Pre/Corequisite: ITSC 1309 or COSC 1301

ITSW 1401
Introduction to Word Processing
An overview of the production of documents, tables, and graphics.
Lecture Hrs = 3, Lab Hrs = 3
Prerequisite: READ 301 or equivalent
Pre/Corequisite: ITSC 1309 or COSC 1301

ITSW 1410
Introduction to Presentation Graphics Software
Instruction in the utilization of presentation software to produce multimedia presentations. Graphics, text, sound, animation and/or video may be used in presentation development.
Lecture Hrs = 3, Lab Hrs = 3
Prerequisite: ITSC 1309 or COSC 1301, READ 301 or equivalent

KINE 1101
Bowling, Beginning
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, Materials Fee
Pre/Corequisite: READ 300 or equivalent

KINE 1102
Bowling, Experienced
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, Materials Fee
Prerequisite: KINE 1101
Pre/Corequisite: READ 300 or equivalent

KINE 1103
Exercise, Beginning
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
Pre/Corequisite: READ 300 or equivalent

KINE 1104
Exercise, Experienced
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
Prerequisite: KINE 1103
Pre/Corequisite: READ 300 or equivalent

Ω indicates courses taught with optional honors contracts.
Σ indicates honors courses. See page 14 for additional information on the honors program.

KINE 1105
Golf, Beginning
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
Pre/Corequisite: READ 300 or equivalent

KINE 1106
Golf, Experienced
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
Prerequisite: KINE 1105
Pre/Corequisite: READ 300 or equivalent

KINE 1107
Cycling, Beginning
A course designed to develop cardiovascular fitness through stationary cycling (spinning). Some emphasis will be on setting up the bicycle, correct technique, nutrition, and hydration.
Lecture Hrs = 1, Lab Hrs = 2
Pre/Corequisite: READ 300 or equivalent

KINE 1108
Cycling, Experienced
A course designed to further improve cardiovascular fitness, strengthen the lower body and increase flexibility. Emphasis will remain on correct cycling techniques, nurtrition, and hydration strategies.
Lecture Hrs = 1, Lab Hrs = 2
Prerequisite: KINE 1107
Pre/Corequisite: READ 300 or equivalent

KINE 1109
Pilates, Beginning
A course designed to strengthen, lengthen, and tone the body without machines.
Lecture Hrs = 1, Lab Hrs = 2
Pre/Corequisite: READ 300 or equivalent

KINE 1110
Pilates, Experienced
A course designed to strengthen, lengthen, and tone the body with an emphasis on students' progressing to intermediate and advanced levels.
Lecture Hrs = 1, Lab Hrs = 2
Prerequisite: KINE 1109
Pre/Corequisite: READ 300 or equivalent

KINE 1111
Aerobic Components, Beginning
A course designed to develop cardiovascular fitness through aerobic exercise. This course will consist of regular aerobics, step aerobics, and cardio kickboxing. Correct technique, nutrition, and hydration will be emphasized.
Lecture Hrs = 1, Lab Hrs = 2
Pre/Corequisite: READ 300 or equivalent

KINE 1112
Aerobic Components, Experienced
A course designed to further improve cardiovascular fitness through aerobic exercise. The course will consist of regular aerobics, step aerobics, and cardio kick boxing. Correct techniques, nutrition, and hydration will be emphasized.
Lecture Hrs = 1, Lab Hrs = 2
Prerequisite: KINE 1111
Pre/Corequisite: READ 300 or equivalent

KINE 1113
Racquetball, Beginning
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
Pre/Corequisite: READ 300 or equivalent

KINE 1114
Racquetball, Experienced
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
Prerequisite: KINE 1113
Pre/Corequisite: READ 300 or equivalent

KINE 1115
Swimming, Beginning
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
Pre/Corequisite: READ 300 or equivalent

KINE 1116
Swimming, Experienced
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
Prerequisite: KINE 1115
Pre/Corequisite: READ 300 or equivalent

KINE 1117
Tennis, Beginning
A course designed to learn the fundamental techniques of tennis. Emphasis wil 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
Pre/Corequisite: READ 300 or equivalent

KINE 1118
Tennis, Experienced
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
Prerequisite: KINE 1117
Pre/Corequisite: READ 300 or equivalent

KINE 1119
Volleyball, Beginning
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
Pre/Corequisite: READ 300 or equivalent

KINE 1120
Volleyball, Experienced
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
Prerequisite: KINE 1119
Pre/Corequisite: READ 300 or equivalent

KINE 1121
Water Aerobics, Beginning
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
Pre/Corequisite: READ 300 or equivalent

KINE 1122
Water Aerobics, Experienced
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
Prerequisite: KINE 1121
Pre/Corequisite: READ 300 or equivalent

KINE 1123
Weight Training, Beginning
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
Pre/Corequisite: READ 300 or equivalent

KINE 1124
Weight Training, Experienced
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
Prerequisite: KINE 1123
Pre/Corequisite: READ 300 or equivalent

KINE 1125
Sailing, Beginning
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
Pre/Corequisite: READ 300 or equivalent

KINE 1126
Sailing, Experienced
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
Prerequisite: KINE 1125
Pre/Corequisite: READ 300 or equivalent

Refer to page 74 for explanation of prerequisites, corequisites, or pre/corequisites.

KINE 1127
Yoga, Beginning
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
Pre/Corequisite: READ 300 or equivalent

KINE 1128
Yoga, Experienced
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
Prerequisite: KINE 1127
Pre/Corequisite: READ 300 or equivalent

KINE 1129
Basketball, Beginning
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
Pre/Corequisite: READ 300 or equivalent

KINE 1130
Basketball, Experienced
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
Prerequisite: KINE 1129
Pre/Corequisite: READ 300 or equivalent

KINE 1141
Self-Defense, Beginning
Instruction will include specific moves related to martial art movements in regard to self-protection.
Lecture Hrs = 1, Lab Hrs = 2
Pre/Corequisite: READ 300 or equivalent

KINE 1142
Self-Defense, Experienced
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
Prerequisite: KINE 1141
Pre/Corequisite: READ 300 or equivalent

KINE 1149
Conditioning for Athletics
A course designed to develop strength and endurance as related to athletics.
Lecture Hrs = 1, Lab Hrs = 2
Pre/Corequisite: READ 300 or equivalent

KINE 1150
Conditioning for Athletics
A course designed to develop speed and power as related to athletics.
Lecture Hrs = 1, Lab Hrs = 2
Prerequisite: KINE 1149
Pre/Corequisite: READ 300 or equivalent

KINE 1151
Skin and Scuba Diving, Beginning
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
Prerequisite: Good Swimming Skills
Pre/Corequisite: READ 300 or equivalent

KINE 1152
Scuba Diving, Experienced
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
Prerequisite: KINE 1151
Pre/Corequisite: READ 300 or equivalent

KINE 1183M
Basketball Team
A course designed for indivduals on athletic scholarships who participate in basketball.
Lecture Hrs = 1, Lab Hrs = 2
Prerequisite: Instructor's permission
Pre/Corequisite: READ 300 or equivalent

KINE 1184M
Basketball Team
A course designed for indivduals on athletic scholarships who participate in basketball.
Lecture Hrs = 1, Lab Hrs = 2
Prerequisite: KINE 1183M, Instructor's permission
Pre/Corequisite: READ 300 or equivalent

KINE 1185W
Tennis Team
A course designed for individuals on athletic scholarships who participate in tennis.
Lecture Hrs = 1, Lab Hrs = 2
Prerequisite: Instructor's permission
Pre/Corequisite: READ 300 or equivalent

KINE 1186W
Tennis Team
A course designed for individuals on athletic scholarships who participate in tennis.
Lecture Hrs = 1, Lab Hrs = 2
Prerequisite: KINE 1185W, Instructor's permission
Pre/Corequisite: READ 300 or equivalent

KINE 1187W
Volleyball Team
A course designed for individuals on athletic scholarships who participate in volleyball.
Lecture Hrs = 1, Lab Hrs = 2
Prerequisite: Instructor's permission
Pre/Corequisite: READ 300 or equivalent

KINE 1188W
Volleyball Team
A course designed for individuals on athletic scholarships who participate in volleyball.
Lecture Hrs = 1, Lab Hrs = 2
Prerequisite: KINE 1187W, Instructor's permission
Pre/Corequisite: READ 300 or equivalent

KINE 1301
Foundations in Physical Education
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
Pre/Corequisite: READ 301 or equivalent

KINE 1304
Personal Health
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
Pre/Corequisite: READ 301 or equivalent

KINE 1305
The Healthy American
A course designed for individuals to make lifestyle assessments within the six dimensions of wellness; the physical, emotional, mental, social, spiritual and occupational dimensions.
Lecture Hrs = 3, Lab Hrs = 0
Pre/Corequisite: READ 301 or equivalent

KINE 1306
First Aid
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
Pre/Corequisite: READ 301 or equivalent

KINE 1308
Sports Officiating
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
Pre/Corequisite: READ 301 or equivalent

KINE 1332
Elementary and Recreational Game Skills
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
Pre/Corequisite: READ 301 or equivalent

KINE 1338
Introduction to Physical Fitness and Sport
This course presents the concepts and use of selected physiological variables of fitness, individual testing and consultation, and the organization of sport and fitness programs.
Lecture Hrs = 3, Lab Hrs = 3
Pre/Corequisite: READ 301 or equivalent

KINE 2149
Conditioning for Athletics
A course designed to develop dynamic speed, coordination and balance as related to athletics.
Lecture Hrs = 1, Lab Hrs = 2
Pre/Corequisite: READ 300 or equivalent

KINE 2150
Conditioning for Athletics
A course designed to develop dynamic power and flexibility for athletics.
Lecture Hrs = 1, Lab Hrs = 2
Prerequisite: KINE 2149
Pre/Corequisite: READ 300 or equivalent

KINE 2155
Water Safety
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 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
Pre/Corequisite: READ 300 or equivalent

KINE 2183M
Basketball Team
A course designed for indivduals on athletic scholarships who participate in basketball.
Lecture Hrs = 1, Lab Hrs = 2
Prerequisite: KINE 1184M, Instructor's permission
Pre/Corequisite: READ 300 or equivalent

KINE 2184M
Basketball Team
A course designed for indivduals on athletic scholarships who participate in basketball.
Lecture Hrs = 1, Lab Hrs = 2
Prerequisite: KINE 2183M, Instructor's permission
Pre/Corequisite: READ 300 or equivalent

KINE 2185W
Tennis Team
A course designed for individuals on athletic scholarships who participate in tennisl.
Lecture Hrs = 1, Lab Hrs = 2
Prerequisite: KINE 1186W
Pre/Corequisite: READ 300 or equivalent

KINE 2186W
Tennis Team
A course designed for individuals on athletic scholarships who participate in tennisl.
Lecture Hrs = 1, Lab Hrs = 2
Prerequisite: KINE 2185W
Pre/Corequisite: READ 300 or equivalent

KINE 2187W
Volleyball Team
A course designed for individuals on athletic scholarships who participate in volleyball.
Lecture Hrs = 1, Lab Hrs = 2
Prerequisite: KINE 1188W, Instructor's permission
Pre/Corequisite: READ 300 or equivalent

KINE 2188W
Volleyball Team
A course designed for individuals on athletic scholarships who participate in volleyball.
Lecture Hrs = 1, Lab Hrs = 2
Prerequisite: KINE 2187W, Instructor's permission
Pre/Corequisite: READ 300 or equivalent

KINE 2356
Care and Prevention of Athletic Injuries
Students will acquire knowledge regarding the signs and symptoms of injuries specific to each body part. Along with injury recognition, they will also learn how to treat and stabilize a variety of orthopedic injuries. To help students learn practical skills, hands-on learning labs will be utilized throughout the course in areas of wound management, splinting, vital signs, transporting athletes, modalities, and supportive taping techniques.
Lecture Hrs = 3, Lab Hrs = 0
Pre/Corequisite: READ 301 or equivalent

LGLA 1301
Legal Research and Writing
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
Prerequisite: READ 301 or equivalent

LGLA 1307
Introduction to Law and the Legal Professions
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
Prerequisite: READ 301 or equivalent

LGLA 1343
Bankruptcy
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
Prerequisite: READ 301 or equivalent
Pre/Corequisite: LGLA 1307, ENGL 1301

LGLA 1345
Civil Litigation
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
Prerequisite: READ 301 or equivalent
Pre/Corequisite: LGLA 1307, ENGL 1301

LGLA 1351
Contracts
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
Prerequisite: READ 301 or equivalent
Pre/Corequisite: LGLA 1307, ENGL 1301

LGLA 1353
Wills, Trusts and Probate Administration
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
Prerequisite: READ 301 or equivalent
Pre/Corequisite: LGLA 1307, ENGL 1301

LGLA 1355
Family Law
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
Prerequisite: READ 301 or equivalent
Pre/Corequisite: LGLA 1307, ENGL 1301

LGLA 2301
Environmental Law
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
Prerequisite: READ 301 or equivalent
Pre/Corequisite: LGLA 1307, ENGL 1301

LGLA 2303
Torts and Personal Injury Law
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
Prerequisite: READ 301 or equivalent
Pre/Corequisite: LGLA 1307, ENGL 1301

LGLA 2307
Law Office Management
Basic principles and structure of management, administration and substantive systems in the law office. Includes law practice technology as applied to paralegals.
Lecture Hrs = 3, Lab Hrs = 0
Prerequisite: READ 301 or equivalent
Pre/Corequisite: LGLA 1307, ENGL 1301

LGLA 2309
Real Property
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
Prerequisite: READ 301 or equivalent
Pre/Corequisite: LGLA 1307, ENGL 1301

LGLA 2311
Business Organizations
Basic concepts of business organizations with emphasis on the paralegal's role. Includes law of agency, sole proprietorships, partnerships, corporations, and other emerging business entities.
Lecture Hrs = 3, Lab Hrs = 0
Prerequisite: READ 301 or equivalent
Pre/Corequisite: LGLA 1307, ENGL 1301

Ω indicates courses taught with optional honors contracts.
Σ indicates honors courses. See page 14 for additional information on the honors program.

LGLA 2313
Criminal Law and Procedure
Procedures from arrest to final disposition, principles of federal and state law, and the preparation of pleadings and motions as applied to pralegals.
Lecture Hrs = 3, Lab Hrs = 0
Prerequisite: READ 301 or equivalent
Pre/Corequisite: LGLA 1307, ENGL 1301

LGLA 2323
Intellectual Property
Paralegal's role in creation, procurement, preparation, filing of and for patents, copyrights, and trademarks. Includes processes of intellectual property litigation.
Lecture Hrs = 3, Lab Hrs = 0
Prerequisite: READ 301 or equivalent
Pre/Corequisite: LGLA 1307, ENGL 1301

LGLA 2331
Advanced Legal Research and Writing
Computerized research techniques and preparation of complex legal documents such as briefs, legal office memoranda, and citation forms.
Lecture Hrs = 3, Lab Hrs = 0
Prerequisite: LGLA 1301, LGLA 1307, ENGL 1301, READ 301 or equivalent

LGLA 2333
Advanced Legal Document Preparation
Preparation of legal documents by paralegals based on hypothetical situations drawn from various areas including real estate, family law, contracts, litigation, and business organizations.
Lecture Hrs = 3, Lab Hrs = 0
Prerequisite: 15 SCH of LGLA Coursework, POFI 1401, READ 301 or equivalent

LGLA 2388
Internship - Legal Assistant/Paralegal
A work-based learning experience that enables the student to apply specialized occupational theory, skills and concepts. A learning plan is developed by the college and the employer.
Lecture Hrs = 0, Lab Hrs = 0, External Hrs = 13
Prerequisite: 24 SCH of LGLA Coursework, ENGL 1302, SPCH 1315, POFI 1401, READ 301 or equivalent

MATH 110
Mathematics for Allied Health
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
Prerequisite: MATH 310 or equivalent; READ 300 or equivalent

MATH 310
Basic Mathematics
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 315. Credit for this course is not transferable.
Lecture Hrs = 3, Lab Hrs = 0
Pre/Corequisite: READ 300 or equivalent

MATH 315
Pre Algebra
This course provides a transition from arithmetic to algebra. Algebric concepts are introduced through traditional arithmetic topics including whole numbers, fractions, decimals, percents, geometric formulas, ratio and proportions, and signed numbers. Unit conversion and basic data analysis will also be studied. 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
Prerequisite: MATH 310 or equivalent, READ 300 or equivalent

MATH 320
Introductory Algebra
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
Prerequisite: MATH 315 or equivalent, READ 300 or equivalent

MATH 330
Intermediate Algebra
Covers these topics: real numbers and their properties, linear equations, system of equations, polynomials and functions, fractional expressions and equations, exponents, powers, 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
Prerequisite: MATH 320 or equivalent, READ 300 or equivalent

MATH 520
Pre Algebra and Introduction to Algebra
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
Prerequisite: MATH 310 or equivalent, READ 300 or equivalent

MATH 530
Introductory and Intermediate Algebra: A Combined Course
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
Prerequisite: MATH 315, READ 300 or equivalent

MATH 1316
Plane Trigonometry
This course covers trigonometric functions, identities, equations, and applications.
Lecture Hrs = 3, Lab Hrs = 0
Prerequisite: MATH 1414 or equivalent (C or better), ENGL 301 or equivalent, READ 302 or equivalent

MATH 1324
Finite Mathematics with Business Applications
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
Prerequisite: MATH 1414 or equivalent (C or better), ENGL 301 or equivalent, READ 302 or equivalent

MATH 1325
Calculus with Business Applications (Transfer Only)
For transfer students who took a course equivalent to MATH 1325 but articulate it after that course changed to 1425.

MATH 1332
Contemporary Mathematics I
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. 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 = 3, Lab Hrs = 0
Prerequisite: MATH 320 or equivalent, ENGL 301 or equivalent, READ 302 or equivalent

MATH 1333
Contemporary Mathematics II
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.
Lecture Hrs = 3, Lab Hrs = 0
Prerequisite: MATH 1332 (C or Better), ENGL 301 or equivalent, READ 302 or equivalent

MATH 1350
Fundamentals of Mathematics I
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.
Lecture Hrs = 3, Lab Hrs = 0
Prerequisite: MATH 1414 or equivalent (C or better), ENGL 301 or equivalent
Pre/Corequisite: READ 302 or equivalent

MATH 1351
Fundamentals of Mathematics II
This course covers concepts of geometry, probability, and statistics, as well as applications of alegebraic properties of real numbers to concepts of measurements with an emphasis on problem solving and critical thinking. This course is designed specifically for students who week middle grade (4-8) teacher certification.
Lecture Hrs = 3, Lab Hrs = 0
Prerequisite: MATH 1350, ENGL 301 or equivalent.
Pre/Corequisite: READ 302 or equivalent

MATH 1414
College Algebra
This course covers the study of quadratics; polynomial, rational, logarithmic, and exponential functions; systems of equations; progressions; sequences and series; and matrices and determinants.
Lecture Hrs = 4, Lab Hrs = 0
Prerequisite: MATH 330 or equivalent, ENGL 301 or equivalent
Pre/Corequisite: READ 302 or equivalent

MATH 1425
Calculus with Business Applications
Includes such topics as limits and continuity, rates of change, slope, differentiation, the derivative, maxima and minima techniques, integration: definite and indefinite integration techniques.
Lecture Hrs = 4, Lab Hrs = 0
Prerequisite: MATH 1414 or equivalent (C or better), ENGL 301 or equivalent, READ 302 or equivalent

MATH 2305
Discrete Mathematics
A study of set theory, relations, functions, matrices, number systems, number theory, difference equations, graphs and trees, combinatorics, probability, and Boolean Algebra.
Lecture Hrs = 3, Lab Hrs = 0
Prerequisite: MATH 1414 or equivalent (C or better), ENGL 301 or equivalent,
READ 302 or equivalent

MATH 2412
Precalculus
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.
Lecture Hrs = 4, Lab Hrs = 0
Prerequisite: MATH 1414 or equivalent (C or better), ENGL 301 or equivalent, READ 302 or equivalent

MATH 2413
Calculus I with Analytic Geometry
This course includes limits, continuity of functions, algebraic and trigonometric function derivative of functions with application in related-rate and optimization problems, differentials, indeterminate forms, L'Hospital's Rule, Max-Min Theorems, Mean Value Theorem, Fundamental Theorem of Calculus, integration with applications to area, volumes, surface area, moments, centers of mass, work and hydrostatic force, and numerical integration.
Lecture Hrs = 4, Lab Hrs = 0
Prerequisite: MATH 2412 or equivalent (C or better), ENGL 301 or equivalent, READ 302 or equivalent

MATH 2414
Calculus II with Analytic Geometry
Transcendental functions, methods of integration conic sections, other plane curves, parametric equations, hyperbolic functions: definitions, identities, derivatives, and integrals; inverse hyperbolic functions; polar coordinates. Sequences, infinite series, convergence, power series, Taylor Polynomials, Taylor's Theorem, convergence of power series: Differentiation, integration, multiplication, and division; vectors.
Lecture Hrs = 4, Lab Hrs = 0
Prerequisite: MATH 2413 or equivalent (C or better), ENGL 301 or equivalent, READ 302 or equivalent

MATH 2415
Calculus III with Analytic Geometry
Vector functions and motion, surfaces, cylindrical and spherical coordinate systems, and curve sketching. Limits and continuity of functions of two variable, partial derivatives, directional derivatives, gradient, surfaces, tangent planes, differential approximations, LaGrange multipliers, multiple integration, physical applications, triple integration, center of gravity, movement of inertia, line integrals, Green's Theorem, surface integrals, Gauss and Stokes Theorem, and differential equations.
Lecture Hrs = 4, Lab Hrs = 0
Prerequisite: MATH 2414 or equivalent (C or better), ENGL 301 or equivalent, READ 302 or equivalent

MATH 2418
Linear Algebra
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.
Lecture Hrs = 4, Lab Hrs = 0
Prerequisite: MATH 2413 or equivalent (C or better), ENGL 301 or equivalent, READ 302 or equivalent

MATH 2420
Differential Equations
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 = 4, Lab Hrs = 0
Prerequisite: MATH 2414 or equivalent (C or better), ENGL 301 or equivalent, READ 302 or equivalent

MATH 2442
Elementary Statistics
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 = 4, Lab Hrs = 0
Prerequisite: MATH 1414 equivalent (C or better), ENGL 301 or equivalent, READ 302 or equivalent

MCHN 1300
Shop Calculations
Designed to prepare the student for the use of math related to machining courses.
Lecture Hrs = 3, Lab Hrs = 0
Pre/Corequisite: READ 300 or equivalent

MCHN 1317
Machine Shop Blueprint Reading
A study of the different types of manufacturing blueprints and the application of each. Emphasis on machine blueprints.
Lecture Hrs = 3, Lab Hrs = 0
Prerequisite: READ 300 or equivalent

MCHN 1343
Machine Shop Mathematics
Designed to prepare the student with technical, applied mathematics that will be necessary in future machine shop-related courses.
Lecture Hrs = 3, Lab Hrs = 0
Pre/Corequisite: READ 300 or equivalent

MCHN 1416
Machine Tool Repair
Basic repair of machine tools, disassembly, parts fabrication, and assembly of machine types, including related math, blueprint reading, and safety.
Lecture Hrs = 3, Lab Hrs = 3
Prerequisite: MCHN 2445
Pre/Corequisite: READ 300 or equivalent

MCHN 1425
Millwright I
An introduction to millwright technology. A study of common millwright tools and fasteners. Development of skills 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
Pre/Corequisite: READ 300 or equivalent

MCHN 1429
Millwright II
An introduction to millwright tools including speciality power and precision tools. A study of the property of metals and in the installation of packings. Emphasis on safety in the accomplishment of these activities.
Lecture Hrs = 3, Lab Hrs = 3
Prerequisite: MCHN 1425
Pre/Corequisite: READ 300 or equivalent

Ω indicates courses taught with optional honors contracts.
Σ indicates honors courses. See page 14 for additional information on the honors program.

Refer to page 74 for explanation of prerequisites, corequisites, or pre/corequisites.

MCHN 1452
Intermediate Machining I
Operation of drills, milling machines, lathes, and power saws. Introduction to precision measuring techniques.
Lecture Hrs = 3, Lab Hrs = 3
Prerequisite: READ 300 or equivalent

MCHN 1454
Intermediate Machining II
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
Prerequisite: MCHN 1452, READ 300 or equivalent

MCHN 2403
Fundamentals of Computer Numerical Controlled (CNC) Machine Controls
An introduction to G and M codes (RS274-D) necessary to program Computer Numerical Controlled (CNC) machines.
Lecture Hrs = 3, Lab Hrs = 3
Prerequisite: MCHN 1454, READ 300 or equivalent

MCHN 2405
Millwright III
An introduction to bearings and seals. Identification of common bearings and seals. Emphasis on design and installation of seals and bearings, and couplings.
Lecture Hrs = 3, Lab Hrs = 3
Prerequisite: MCHN 1425
Pre/Corequisite: READ 300 or equivalent

MCHN 2407
Millwright IV
A study in the recognition and application of pumps. Emphasis on troubleshooting, repair, and installation of pumps.
Lecture Hrs = 3, Lab Hrs = 3
Prerequisite: MCHN 1429
Pre/Corequisite: READ 300 or equivalent

MCHN 2412
Millwright V
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
Prerequisite: MCHN 2407, READ 300 or equivalent

MCHN 2434
Operation of CNC Machining Centers
A continuation of Fundamentals of CNC Machine Controls with an emphasis on machining centers.
Lecture Hrs = 3, Lab Hrs = 3
Prerequisite: MCHN 1317, MCHN 2445, READ 300 or equivalent

MCHN 2441
Advanced Machining I
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
Prerequisite: MCHN 1452, READ 300 or equivalent

MCHN 2445
Advanced Machining II
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
Prerequisite: MCHN 1452, READ 300 or equivalent

MRKG 1311
Principles of Marketing
Introduction to the 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
Pre/Corequisite: READ 301 or equivalent

MRKG 2333
Principles of Selling
Overview of the selling process. Identification of the elements of the communication process between buyers and sellers. Examination of the legal and ethical issues of organizations which affect salespeople.
Lecture Hrs = 3, Lab Hrs = 0
Prerequisite: READ 301 or equivalent

MRMT 1167
Practicum (or Field Experience) - Medical Transcription/Transcriptionist
Practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student.
Lecture Hrs = 0, Lab Hrs = 0, External Lab = 8, Insurance Fee
Prerequisite: MRMT 1307, READ 300 or equivalent
Pre/Corequisite: MRMT 2433

MRMT 1307
Medical Transcription Fundamentals
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
Prerequisite: HITT 1305, ITSC 1309, READ 300 or equivalent

MRMT 2433
Advanced Medical Transcription
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 = 3, Lab Hrs = 2
Prerequisite: MRMT 1307, READ 300 or equivalent

MUAP 1101
Strings - Violin
Pre/Corequisite: READ 300 or equivalent

Ω indicates courses taught with optional honors contracts.
Σ indicates honors courses. See page 14 for additional information on the honors program.

MUAP 1102
Strings - Violin
Pre/Corequisite: READ 300 or equivalent

MUAP 1105
Strings - Viola
Pre/Corequisite: READ 300 or equivalent

MUAP 1106
Strings - Viola
Pre/Corequisite: READ 300 or equivalent

MUAP 1109
Strings - Cello
Pre/Corequisite: READ 300 or equivalent

MUAP 1110
Strings - Cello
Pre/Corequisite: READ 300 or equivalent

MUAP 1113
Strings - String Bass
Pre/Corequisite: READ 300 or equivalent

MUAP 1114
Strings - String Bass
Pre/Corequisite: READ 300 or equivalent

MUAP 1117
Woodwind - Flute
Pre/Corequisite: READ 300 or equivalent

MUAP 1118
Woodwind - Flute
Pre/Corequisite: READ 300 or equivalent

MUAP 1121
Woodwind - Oboe
Pre/Corequisite: READ 300 or equivalent

MUAP 1122
Woodwind - Oboe
Pre/Corequisite: READ 300 or equivalent

MUAP 1125
Woodwind - Bassoon
Pre/Corequisite: READ 300 or equivalent

MUAP 1126
Woodwind - Bassoon
Pre/Corequisite: READ 300 or equivalent

MUAP 1129
Woodwind - Clarinet
Pre/Corequisite: READ 300 or equivalent

MUAP 1130
Woodwinds - Clarinet
Pre/Corequisite: READ 300 or equivalent

MUAP 1133
Woodwind - Saxophone
Pre/Corequisite: READ 300 or equivalent

MUAP 1134
Woodwind - Saxophone
Pre/Corequisite: READ 300 or equivalent

MUAP 1137
Brass - Trumpet
Pre/Corequisite: READ 300 or equivalent

MUAP 1138
Brass - Trumpet
Pre/Corequisite: READ 300 or equivalent

MUAP 1141
Brass - French Horn
Pre/Corequisite: READ 300 or equivalent

MUAP 1142
Brass - French Horn
Pre/Corequisite: READ 300 or equivalent

MUAP 1145
Brass - Trombone
Pre/Corequisite: READ 300 or equivalent

MUAP 1146
Brass - Trombone
Pre/Corequisite: READ 300 or equivalent

MUAP 1153
Brass - Tuba
Pre/Corequisite: READ 300 or equivalent

MUAP 1154
Brass - Tuba
Pre/Corequisite: READ 300 or equivalent

MUAP 1157
Percussion
Pre/Corequisite: READ 300 or equivalent

MUAP 1158
Percussion
Pre/Corequisite: READ 300 or equivalent

MUAP 1161
Strings - Classical Guitar
Pre/Corequisite: READ 300 or equivalent

MUAP 1162
Strings - Classical Guitar
Pre/Corequisite: READ 300 or equivalent

MUAP 1165
Organ
Pre/Corequisite: READ 300 or equivalent

MUAP 1166
Organ
Pre/Corequisite: READ 300 or equivalent

MUAP 1169
Piano
Pre/Corequisite: READ 300 or equivalent

MUAP 1170
Piano
Pre/Corequisite: READ 300 or equivalent

MUAP 1177
Harp
Pre/Corequisite: READ 300 or equivalent

MUAP 1178
Harp
Pre/Corequisite: READ 300 or equivalent

MUAP 1181
Voice
Pre/Corequisite: READ 300 or equivalent

MUAP 1182
Voice
Pre/Corequisite: READ 300 or equivalent

MUAP 1187
Strings - Bass Guitar
Pre/Corequisite: READ 300 or equivalent

MUAP 1188
Strings - Bass Guitar
Pre/Corequisite: READ 300 or equivalent

MUAP 1191
Strings - Electric Guitar
Pre/Corequisite: READ 300 or equivalent

MUAP 1192
Strings - Electric Guitar
Pre/Corequisite: READ 300 or equivalent

MUAP 1201
Strings - Violin
Pre/Corequisite: READ 300 or equivalent
Corequisite: MUEN 1123 or MUEN 2123

MUAP 1202
Strings - Violin
Pre/Corequisite: READ 300 or equivalent
Corequisite: MUEN 1123 or MUEN 2123

MUAP 1203
Violin - Freshman Major
Pre/Corequisite: READ 300 or equivalent

MUAP 1204
Violin - Freshman Major
Pre/Corequisite: READ 300 or equivalent

MUAP 1205
Strings - Viola
Pre/Corequisite: READ 300 or equivalent
Corequisite: MUEN 1123 or MUEN 2123

MUAP 1206
Strings - Viola
Pre/Corequisite: READ 300 or equivalent
Corequisite: MUEN 1123 or MUEN 2123

MUAP 1207
Viola - Freshman Major
Pre/Corequisite: READ 300 or equivalent

MUAP 1208

Viola - Freshman Major
Pre/Corequisite: READ 300 or equivalent

MUAP 1209
Strings - Cello
Pre/Corequisite: READ 300 or equivalent
Corequisite: MUEN 1123 or MUEN 2123

MUAP 1210
Strings - Cello
Pre/Corequisite: READ 300 or equivalent
Corequisite: MUEN 1123 or MUEN 2123

MUAP 1211
Cello - Freshman Major
Pre/Corequisite: READ 300 or equivalent

MUAP 1212
Cello - Freshman Major
Pre/Corequisite: READ 300 or equivalent

MUAP 1213
Strings - String Bass
Pre/Corequisite: READ 300 or equivalent
Corequisite: MUEN 1123 or MUEN 2123

MUAP 1214
Strings - String Bass
Pre/Corequisite: READ 300 or equivalent
Corequisite: MUEN 1123 or MUEN 2123

MUAP 1215
String Bass - Freshman Major
Pre/Corequisite: READ 300 or equivalent

MUAP 1216
String Bass - Freshman Major
Pre/Corequisite: READ 300 or equivalent

MUAP 1217
Woodwinds - Flute
Pre/Corequisite: READ 300 or equivalent
Corequisite: MUEN 1123, MUEN 2123, MUEN 1125, MUEN 2125, MUEN 1135, or MUEN 1235 (must select one or more)

MUAP 1218
Woodwinds - Flute
Pre/Corequisite: READ 300 or equivalent
Corequisite: MUEN 1123, MUEN 2123, MUEN 1125, MUEN 2125, MUEN 1135, or MUEN 1235 (must select one or more)

MUAP 1219
Flute - Freshman Major
Pre/Corequisite: READ 300 or equivalent

MUAP 1220
Flute - Freshman Major
Pre/Corequisite: READ 300 or equivalent

MUAP 1221
Woodwinds - Oboe
Pre/Corequisite: READ 300 or equivalent
Corequisite: MUEN 1123, MUEN 2123, MUEN 1125, MUEN 2125, MUEN 1135, or MUEN 1235 (must select one or more)

MUAP 1222
Woodwinds - Oboe
Pre/Corequisite: READ 300 or equivalent
Corequisite: MUEN 1123, MUEN 2123, MUEN 1125, MUEN 2125, MUEN 1135, or MUEN 1235 (must select one or more)

MUAP 1223
Oboe - Freshman Major
Pre/Corequisite: READ 300 or equivalent

MUAP 1224
Oboe - Freshman Major
Pre/Corequisite: READ 300 or equivalent

MUAP 1225
Woodwinds - Bassoon
Pre/Corequisite: READ 300 or equivalent
Corequisite: MUEN 1123, MUEN 2123, MUEN 1125, MUEN 2125, MUEN 1135, or MUEN 1235 (must select one or more)

MUAP 1226
Woodwinds - Bassoon
Pre/Corequisite: READ 300 or equivalent
Corequisite: MUEN 1123, MUEN 2123, MUEN 1125, MUEN 2125, MUEN 1135, or MUEN 1235 (must select one or more)

MUAP 1227
Bassoon - Freshman Major
Pre/Corequisite: READ 300 or equivalent

Refer to page 74 for explanation of prerequisites, corequisites, or pre/corequisites.

MUAP 1228
Bassoon - Freshman Major
Pre/Corequisite: READ 300 or equivalent

MUAP 1229
Woodwinds - Clarinet
Pre/Corequisite: READ 300 or equivalent
Corequisite: MUEN 1123, MUEN 2123, MUEN 1125, MUEN 2125, MUEN 1135, or MUEN 1235 (must select one or more)

MUAP 1230
Woodwinds - Clarinet
Pre/Corequisite: READ 300 or equivalent
Corequisite: MUEN 1123, MUEN 2123, MUEN 1125, MUEN 2125, MUEN 1135, or MUEN 1235 (must select one or more)

MUAP 1231
Clarinet - Freshman Major
Pre/Corequisite: READ 300 or equivalent

MUAP 1232
Clarinet - Freshman Major
Pre/Corequisite: READ 300 or equivalent

MUAP 1233
Woodwinds - Saxophone
Pre/Corequisite: READ 300 or equivalent
Corequisite: MUEN 1123, MUEN 2123, MUEN 1125, MUEN 2125, MUEN 1135, or MUEN 1235 (must select one or more)

MUAP 1234
Woodwinds - Saxophone
Pre/Corequisite: READ 300 or equivalent
Corequisite: MUEN 1123, MUEN 2123, MUEN 1125, MUEN 2125, MUEN 1135, or MUEN 1235 (must select one or more)

MUAP 1235
Saxophone - Freshman Major
Pre/Corequisite: READ 300 or equivalent

MUAP 1236
Saxophone - Freshman Major
Pre/Corequisite: READ 300 or equivalent

MUAP 1237
Brass - Trumpet
Pre/Corequisite: READ 300 or equivalent
Corequisite: MUEN 1123, MUEN 2123, MUEN 1125, MUEN 2125, MUEN 1135, or MUEN 1235 (must select one or more)

MUAP 1238
Brass - Trumpet
Pre/Corequisite: READ 300 or equivalent
Corequisite: MUEN 1123, MUEN 2123, MUEN 1125, MUEN 2125, MUEN 1135, or MUEN 1235 (must select one or more)

MUAP 1239
Trumpet - Freshman Major
Pre/Corequisite: READ 300 or equivalent

MUAP 1240
Trumpet - Freshman Major
Pre/Corequisite: READ 300 or equivalent

MUAP 1241
Brass - French Horn
Pre/Corequisite: READ 300 or equivalent
Corequisite: MUEN 1123, MUEN 2123, MUEN 1125, MUEN 2125, MUEN 1135, or MUEN 1235 (must select one or more)

MUAP 1242
Brass - French Horn
Pre/Corequisite: READ 300 or equivalent
Corequisite: MUEN 1123, MUEN 2123, MUEN 1125, MUEN 2125, MUEN 1135, or MUEN 1235 (must select one or more)

MUAP 1243
French Horn - Freshman Major
Pre/Corequisite: READ 300 or equivalent

MUAP 1244
French Horn - Freshman Major
Pre/Corequisite: READ 300 or equivalent

MUAP 1245
Brass - Trombone
Pre/Corequisite: READ 300 or equivalent
Corequisite: MUEN 1123, MUEN 2123, MUEN 1125, MUEN 2125, MUEN 1135, or MUEN 1235 (must select one or more)

MUAP 1246
Brass - Trombone
Pre/Corequisite: READ 300 or equivalent
Corequisite: MUEN 1123, MUEN 2123, MUEN 1125, MUEN 2125, MUEN 1135, or MUEN 1235 (must select one or more)

MUAP 1247
Trombone - Freshman Major
Pre/Corequisite: READ 300 or equivalent

MUAP 1248
Trombone - Freshman Major
Pre/Corequisite: READ 300 or equivalent

MUAP 1253
Brass - Tuba
Pre/Corequisite: READ 300 or equivalent
Corequisite: MUEN 1123, MUEN 2123, MUEN 1125, MUEN 2125, MUEN 1135, or MUEN 1235 (must select one or more)

MUAP 1254
Brass - Tuba
Pre/Corequisite: READ 300 or equivalent
Corequisite: MUEN 1123, MUEN 2123, MUEN 1125, MUEN 2125, MUEN 1135, or MUEN 1235 (must select one or more)

MUAP 1255
Tuba - Freshman Major
Pre/Corequisite: READ 300 or equivalent

MUAP 1256
Tuba - Freshman Major
Pre/Corequisite: READ 300 or equivalent

MUAP 1257
Percussion
Pre/Corequisite: READ 300 or equivalent
Corequisite: MUEN 1123, MUEN 2123, MUEN 1125, MUEN 2125, MUEN 1135, or MUEN 1235 (must select one or more)

MUAP 1258
Percussion
Pre/Corequisite: READ 300 or equivalent
Corequisite: MUEN 1123, MUEN 2123, MUEN 1125, MUEN 2125, MUEN 1135, or MUEN 1235 (must select one or more)

MUAP 1259
Percussion - Freshman Major
Pre/Corequisite: READ 300 or equivalent

MUAP 1260
Percussion - Freshman Major
Pre/Corequisite: READ 300 or equivalent

MUAP 1261
Strings - Classical Guitar
Pre/Corequisite: READ 300 or equivalent
Corequisite: MUEN 1137

MUAP 1262
Strings - Classical Guitar
Pre/Corequisite: READ 300 or equivalent
Corequisite: MUEN 1137

MUAP 1263
Classical Guitar - Freshman Major
Pre/Corequisite: READ 300 or equivalent

MUAP 1264
Classical Guitar - Freshman Major
Pre/Corequisite: READ 300 or equivalent

MUAP 1265
Organ
Pre/Corequisite: READ 300 or equivalent

MUAP 1266
Organ
Pre/Corequisite: READ 300 or equivalent

MUAP 1267
Organ - Freshman Major
Pre/Corequisite: READ 300 or equivalent

MUAP 1268
Organ - Freshman Major
Pre/Corequisite: READ 300 or equivalent

MUAP 1269
Piano
Pre/Corequisite: READ 300 or equivalent
Corequisite: MUEN 1141, MUEN 2142, MUEN 1142, MUEN 2142, MUEN 1152, MUEN 1135, or MUEN 2135 (must select one or more)

MUAP 1270
Piano
Pre/Corequisite: READ 300 or equivalent
Corequisite: MUEN 1141, MUEN 2142, MUEN 1142, MUEN 2142, MUEN 1152, MUEN 1135, or MUEN 2135 (must select one or more)

MUAP 1271
Piano - Freshman Major
Pre/Corequisite: READ 300 or equivalent

MUAP 1272
Piano - Freshman Major
Pre/Corequisite: READ 300 or equivalent

MUAP 1277
Harp
Pre/Corequisite: READ 300 or equivalent

MUAP 1278
Harp
Pre/Corequisite: READ 300 or equivalent

MUAP 1279
Harp - Freshman Major
Pre/Corequisite: READ 300 or equivalent

MUAP 1280
Harp - Freshman Major
Pre/Corequisite: READ 300 or equivalent

MUAP 1281
Voice
Pre/Corequisite: READ 300 or equivalent
Corequisite: MUEN 1141, MUEN 2141, MUEN 1142, MUEN 2142, or MUEN 1152 (must select one or more)

MUAP 1282
Voice
Pre/Corequisite: READ 300 or equivalent
Corequisite: MUEN 1141, MUEN 2141, MUEN 1142, MUEN 2142, or MUEN 1152 (must select one or more)

MUAP 1283
Voice - Freshman Major
Pre/Corequisite: READ 300 or equivalent

MUAP 1284
Voice - Freshman Major
Pre/Corequisite: READ 300 or equivalent

MUAP 1287
Strings - Bass Guitar
Pre/Corequisite: READ 300 or equivalent
Corequisite: MUEN 1137

MUAP 1288
Strings - Bass Guitar
Pre/Corequisite: READ 300 or equivalent
Corequisite: MUEN 1137

MUAP 1289
Bass Guitar - Freshman Major
Pre/Corequisite: READ 300 or equivalent

MUAP 1290
Bass Guitar - Freshman Major
Pre/Corequisite: READ 300 or equivalent

MUAP 1291
Strings - Electric Guitar
Pre/Corequisite: READ 300 or equivalent
Corequisite: MUEN 1137

MUAP 1292
Strings - Electric Guitar
Pre/Corequisite: READ 300 or equivalent
Corequisite: MUEN 1137

MUAP 1293
Electric Guitar - Freshman Major
Pre/Corequisite: READ 300 or equivalent

MUAP 1294
Electric Guitar - Freshman Major
Pre/Corequisite: READ 300 or equivalent

MUAP 2101
Strings - Violin
Pre/Corequisite: READ 300 or equivalent

MUAP 2102
Strings - Violin
Pre/Corequisite: READ 300 or equivalent

MUAP 2105
Strings - Viola
Pre/Corequisite: READ 300 or equivalent

MUAP 2106
Strings - Viola
Pre/Corequisite: READ 300 or equivalent

MUAP 2109
Strings - Cello
Pre/Corequisite: READ 300 or equivalent

MUAP 2110
Strings - Cello
Pre/Corequisite: READ 300 or equivalent

MUAP 2113
Strings - String Bass
Pre/Corequisite: READ 300 or equivalent

MUAP 2114
Strings - String Bass
Pre/Corequisite: READ 300 or equivalent

MUAP 2117
Woodwinds - Flute
Pre/Corequisite: READ 300 or equivalent

MUAP 2118
Woodwinds - Flute
Pre/Corequisite: READ 300 or equivalent

MUAP 2121
Woodwinds - Oboe
Pre/Corequisite: READ 300 or equivalent

MUAP 2122
Woodwinds - Oboe
Pre/Corequisite: READ 300 or equivalent

MUAP 2125
Woodwinds - Bassoon
Pre/Corequisite: READ 300 or equivalent

MUAP 2126
Woodwinds - Bassoon
Pre/Corequisite: READ 300 or equivalent

MUAP 2129
Woodwinds - Clarinet
Pre/Corequisite: READ 300 or equivalent

MUAP 2130
Woodwinds - Clarinet
Pre/Corequisite: READ 300 or equivalent

MUAP 2133
Woodwinds - Saxophone
Pre/Corequisite: READ 300 or equivalent

MUAP 2134
Woodwinds - Saxophone
Pre/Corequisite: READ 300 or equivalent

MUAP 2137
Brass - Trumpet
Pre/Corequisite: READ 300 or equivalent

MUAP 2138
Brass - Trumpet
Pre/Corequisite: READ 300 or equivalent

MUAP 2141
Brass - French Horn
Pre/Corequisite: READ 300 or equivalent

MUAP 2142
Brass - French Horn
Pre/Corequisite: READ 300 or equivalent

MUAP 2145
Brass - Trombone
Pre/Corequisite: READ 300 or equivalent

MUAP 2146
Brass - Trombone
Pre/Corequisite: READ 300 or equivalent

MUAP 2153
Brass - Tuba
Pre/Corequisite: READ 300 or equivalent

MUAP 2154
Brass - Tuba
Pre/Corequisite: READ 300 or equivalent

MUAP 2157
Percussion
Pre/Corequisite: READ 300 or equivalent

MUAP 2158
Percussion
Pre/Corequisite: READ 300 or equivalent

MUAP 2161
Strings - Classical Guitar
Pre/Corequisite: READ 300 or equivalent

MUAP 2162
Strings - Classical Guitar
Pre/Corequisite: READ 300 or equivalent

MUAP 2165
Organ
Pre/Corequisite: READ 300 or equivalent

MUAP 2166
Organ
Pre/Corequisite: READ 300 or equivalent

MUAP 2169
Piano
Pre/Corequisite: READ 300 or equivalent

MUAP 2170
Piano
Pre/Corequisite: READ 300 or equivalent

MUAP 2177
Harp
Pre/Corequisite: READ 300 or equivalent

MUAP 2178
Harp
Pre/Corequisite: READ 300 or equivalent

MUAP 2181
Voice
Pre/Corequisite: READ 300 or equivalent

MUAP 2182
Voice
Pre/Corequisite: READ 300 or equivalent

MUAP 2187
Strings - Bass Guitar
Pre/Corequisite: READ 300 or equivalent

Refer to page 74 for explanation of prerequisites, corequisites, or pre/corequisites.

MUAP 2188
Strings - Bass Guitar
Pre/Corequisite: READ 300 or equivalent

MUAP 2191
Strings - Electric Guitar
Pre/Corequisite: READ 300 or equivalent

MUAP 2192
Strings - Electric Guitar
Pre/Corequisite: READ 300 or equivalent

MUAP 2201
Strings - Violin
Pre/Corequisite: READ 300 or equivalent
Corequisite: MUEN 1123 or MUEN 2123

MUAP 2202
Strings - Violin
Pre/Corequisite: READ 300 or equivalent
Corequisite: MUEN 1123 or MUEN 2123

MUAP 2203 Ω
Violin - Sophomore Major
Pre/Corequisite: READ 300 or equivalent

MUAP 2204 Ω
Violin - Sophomore Major
Pre/Corequisite: READ 300 or equivalent

MUAP 2205
Strings - Viola
Pre/Corequisite: READ 300 or equivalent
Corequisite: MUEN 1123 or MUEN 2123

MUAP 2206
Strings - Viola
Pre/Corequisite: READ 300 or equivalent
Corequisite: MUEN 1123 or MUEN 2123

MUAP 2207 Ω
Viola - Sophomore Major
Pre/Corequisite: READ 300 or equivalent

MUAP 2208 Ω
Viola - Sophomore Major
Pre/Corequisite: READ 300 or equivalent

MUAP 2209
Strings - Cello
Pre/Corequisite: READ 300 or equivalent
Corequisite: MUEN 1123 or MUEN 2123

MUAP 2210
Strings - Cello
Pre/Corequisite: READ 300 or equivalent
Corequisite: MUEN 1123 or MUEN 2123

MUAP 2211 Ω
Cello - Sophomore Major
Pre/Corequisite: READ 300 or equivalent

MUAP 2212 Ω
Cello - Sophomore Major
Pre/Corequisite: READ 300 or equivalent

MUAP 2213
Strings - String Bass
Pre/Corequisite: READ 300 or equivalent
Corequisite: MUEN 1123 or MUEN 2123

MUAP 2214
Strings - String Bass
Pre/Corequisite: READ 300 or equivalent
Corequisite: MUEN 1123 or MUEN 2123

MUAP 2215 Ω
String Bass - Sophomore Major
Pre/Corequisite: READ 300 or equivalent

MUAP 2216 Ω
String Bass - Sophomore Major
Pre/Corequisite: READ 300 or equivalent

MUAP 2217
Woodwinds - Flute
Pre/Corequisite: READ 300 or equivalent
Corequisite: MUEN 1123, MUEN 2123, MUEN 1125, MUEN 2125, MUEN 1135, or MUEN 1235 (must select one or more)

MUAP 2218
Woodwinds - Flute
Pre/Corequisite: READ 300 or equivalent
Corequisite: MUEN 1123, MUEN 2123, MUEN 1125, MUEN 2125, MUEN 1135, or MUEN 1235 (must select one or more)

MUAP 2219 Ω
Flute - Sophomore Major
Pre/Corequisite: READ 300 or equivalent

MUAP 2220 Ω
Flute - Sophomore Major
Pre/Corequisite: READ 300 or equivalent

MUAP 2221
Woodwinds - Oboe
Pre/Corequisite: READ 300 or equivalent
Corequisite: MUEN 1123, MUEN 2123, MUEN 1125, MUEN 2125, MUEN 1135, or MUEN 1235 (must select one or more)

MUAP 2222
Woodwinds - Oboe
Pre/Corequisite: READ 300 or equivalent
Corequisite: MUEN 1123, MUEN 2123, MUEN 1125, MUEN 2125, MUEN 1135, or MUEN 1235 (must select one or more)

MUAP 2223 Ω
Oboe - Sophomore Major
Pre/Corequisite: READ 300 or equivalent

MUAP 2224 Ω
Oboe - Sophomore Major
Pre/Corequisite: READ 300 or equivalent

MUAP 2225
Woodwinds - Bassoon
Pre/Corequisite: READ 300 or equivalent
Corequisite: MUEN 1123, MUEN 2123, MUEN 1125, MUEN 2125, MUEN 1135, or MUEN 1235 (must select one or more)

MUAP 2226
Woodwinds - Bassoon
Pre/Corequisite: READ 300 or equivalent
Corequisite: MUEN 1123, MUEN 2123, MUEN 1125, MUEN 2125, MUEN 1135, or MUEN 1235 (must select one or more)

MUAP 2227 Ω
Bassoon - Sophomore Major
Pre/Corequisite: READ 300 or equivalent

MUAP 2228 Ω
Bassoon - Sophomore Major
Pre/Corequisite: READ 300 or equivalent

MUAP 2229
Woodwinds - Clarinet
Pre/Corequisite: READ 300 or equivalent
Corequisite: MUEN 1123, MUEN 2123, MUEN 1125, MUEN 2125, MUEN 1135, or MUEN 1235 (must select one or more)

MUAP 2230
Woodwinds - Clarinet
Pre/Corequisite: READ 300 or equivalent
Corequisite: MUEN 1123, MUEN 2123, MUEN 1125, MUEN 2125, MUEN 1135, or MUEN 1235 (must select one or more)

MUAP 2231Ω
Clarinet - Sophomore Major
Pre/Corequisite: READ 300 or equivalent

MUAP 2232 Ω
Clarinet - Sophomore Major
Pre/Corequisite: READ 300 or equivalent

MUAP 2233
Woodwinds - Saxophone
Pre/Corequisite: READ 300 or equivalent
Corequisite: MUEN 1123, MUEN 2123, MUEN 1125, MUEN 2125, MUEN 1135, or MUEN 1235 (must select one or more)

MUAP 2234
Woodwinds - Saxophone
Pre/Corequisite: READ 300 or equivalent
Corequisite: MUEN 1123, MUEN 2123, MUEN 1125, MUEN 2125, MUEN 1135, or MUEN 1235 (must select one or more)

MUAP 2235 Ω
Saxophone - Sophomore Major
Pre/Corequisite: READ 300 or equivalent

MUAP 2236 Ω
Saxophone - Sophomore Major
Pre/Corequisite: READ 300 or equivalent

MUAP 2237
Brass - Trumpet
Pre/Corequisite: READ 300 or equivalent
Corequisite: MUEN 1123, MUEN 2123, MUEN 1125, MUEN 2125, MUEN 1135, or MUEN 1235 (must select one or more)

MUAP 2238
Brass - Trumpet
Pre/Corequisite: READ 300 or equivalent
Corequisite: MUEN 1123, MUEN 2123, MUEN 1125, MUEN 2125, MUEN 1135, or MUEN 1235 (must select one or more)

MUAP 2239 Ω
Trumpet - Sophomore Major
Pre/Corequisite: READ 300 or equivalent

MUAP 2240 Ω
Trumpet - Sophomore Major
Pre/Corequisite: READ 300 or equivalent

MUAP 2241
Brass - French Horn
Pre/Corequisite: READ 300 or equivalent
Corequisite: MUEN 1123, MUEN 2123, MUEN 1125, MUEN 2125, MUEN 1135, or MUEN 1235 (must select one or more)

MUAP 2242
Brass - French Horn
Pre/Corequisite: READ 300 or equivalent
Corequisite: MUEN 1123, MUEN 2123, MUEN 1125, MUEN 2125, MUEN 1135, or MUEN 1235 (must select one or more)

MUAP 2243 Ω
French Horn - Sophomore Major
Pre/Corequisite: READ 300 or equivalent

MUAP 2244 Ω
French Horn - Sophomore Major
Pre/Corequisite: READ 300 or equivalent

MUAP 2245
Brass - Trombone
Pre/Corequisite: READ 300 or equivalent
Corequisite: MUEN 1123, MUEN 2123, MUEN 1125, MUEN 2125, MUEN 1135, or MUEN 1235 (must select one or more)

MUAP 2246
Brass - Trombone
Pre/Corequisite: READ 300 or equivalent
Corequisite: MUEN 1123, MUEN 2123, MUEN 1125, MUEN 2125, MUEN 1135, or MUEN 1235 (must select one or more)

MUAP 2247 Ω
Trombone - Sophomore Major
Pre/Corequisite: READ 300 or equivalent

MUAP 2248 Ω
Trombone - Sophomore Major
Pre/Corequisite: READ 300 or equivalent

MUAP 2253
Brass - Tuba
Pre/Corequisite: READ 300 or equivalent
Corequisite: MUEN 1123, MUEN 2123, MUEN 1125, MUEN 2125, MUEN 1135, or MUEN 1235 (must select one or more)

MUAP 2254
Brass - Tuba
Pre/Corequisite: READ 300 or equivalent
Corequisite: MUEN 1123, MUEN 2123, MUEN 1125, MUEN 2125, MUEN 1135, or MUEN 1235 (must select one or more)

MUAP 2255 Ω
Tuba - Sophomore Major
Pre/Corequisite: READ 300 or equivalent

MUAP 2256 Ω
Tuba - Sophomore Major
Pre/Corequisite: READ 300 or equivalent

MUAP 2257
Percussion
Pre/Corequisite: READ 300 or equivalent
Corequisite: MUEN 1123, MUEN 2123, MUEN 1125, MUEN 2125, MUEN 1135, or MUEN 1235 (must select one or more)

MUAP 2258
Percussion
Pre/Corequisite: READ 300 or equivalent
Corequisite: MUEN 1123, MUEN 2123, MUEN 1125, MUEN 2125, MUEN 1135, or MUEN 1235 (must select one or more)

MUAP 2259 Ω
Percussion - Sophomore Major
Pre/Corequisite: READ 300 or equivalent

MUAP 2260 Ω
Percussion - Sophomore Major
Pre/Corequisite: READ 300 or equivalent

MUAP 2261
Strings - Classical Guitar
Pre/Corequisite: READ 300 or equivalent
Corequisite: MUEN 1137

MUAP 2262
Strings - Classical Guitar
Pre/Corequisite: READ 300 or equivalent
Corequisite: MUEN 1137

MUAP 2263 Ω
Classical Guitar - Sophomore Major
Pre/Corequisite: READ 300 or equivalent

MUAP 2264 Ω
Classical Guitar - Sophomore Major
Pre/Corequisite: READ 300 or equivalent

MUAP 2265
Organ
Pre/Corequisite: READ 300 or equivalent

MUAP 2266
Organ
Pre/Corequisite: READ 300 or equivalent

MUAP 2267 Ω
Organ - Sophomore Major
Pre/Corequisite: READ 300 or equivalent

MUAP 2268 Ω
Organ - Sophomore Major
Pre/Corequisite: READ 300 or equivalent

MUAP 2269
Piano
Pre/Corequisite: READ 300 or equivalent
Corequisite: MUEN 1141, MUEN 2142, MUEN 1142, MUEN 2142, MUEN 1152, MUEN 1135, or MUEN 2135 (must select one or more)

MUAP 2270
Piano
Pre/Corequisite: READ 300 or equivalent
Corequisite: MUEN 1141, MUEN 2142, MUEN 1142, MUEN 2142, MUEN 1152, MUEN 1135, or MUEN 2135 (must select one or more)

MUAP 2271 Ω
Piano - Sophomore Major
Pre/Corequisite: READ 300 or equivalent

MUAP 2272 Ω
Piano - Sophomore Major
Pre/Corequisite: READ 300 or equivalent

MUAP 2277
Harp
Pre/Corequisite: READ 300 or equivalent
Corequisite: MUEN 1123 or MUEN 2123

MUAP 2278
Harp
Pre/Corequisite: READ 300 or equivalent
Corequisite: MUEN 1123 or MUEN 2123

MUAP 2279 Ω
Harp - Sophomore Major
Pre/Corequisite: READ 300 or equivalent

MUAP 2280 Ω
Harp - Sophomore Major
Pre/Corequisite: READ 300 or equivalent

MUAP 2281
Voice
Pre/Corequisite: READ 300 or equivalent
Corequisite: MUEN 1141, MUEN 2141, MUEN 1142, MUEN 2142, or MUEN 1152 (must select one or more)

MUAP 2282
Voice
Pre/Corequisite: READ 300 or equivalent
Corequisite: MUEN 1141, MUEN 2141, MUEN 1142, MUEN 2142, or MUEN 1152 (must select one or more)

MUAP 2283 Ω
Voice - Sophomore Major
Pre/Corequisite: READ 300 or equivalent

MUAP 2284 Ω
Voice - Sophomore Major
Pre/Corequisite: READ 300 or equivalent

MUAP 2287
Strings - Bass Guitar
Pre/Corequisite: READ 300 or equivalent
Corequisite: MUEN 1137

MUAP 2288
Strings - Bass Guitar
Pre/Corequisite: READ 300 or equivalent
Corequisite: MUEN 1137

MUAP 2289 Ω
Bass Guitar - Sophomore Major
Pre/Corequisite: READ 300 or equivalent

MUAP 2290 Ω
Bass Guitar - Sophomore Major
Pre/Corequisite: READ 300 or equivalent

MUAP 2291
Strings - Electric Guitar
Pre/Corequisite: READ 300 or equivalent
Corequisite: MUEN 1137

MUAP 2292
Strings - Electric Guitar
Pre/Corequisite: READ 300 or equivalent
Corequisite: MUEN 1137

MUAP 2293 Ω
Electric Guitar - Sophomore Major
Pre/Corequisite: READ 300 or equivalent

MUAP 2294 Ω
Electric Guitar - Sophomore Major
Pre/Corequisite: READ 300 or equivalent

MUAP 2299
Music Conducting
Private study of strings, woodwinds, bass, percussion, guitar, organ, piano, voice, harp, and music conducting is offered for credit.
Lecture Hrs = 1, Lab Hrs = 1
Pre/Corequisite: READ 300 or equivalent

MUEN 1123
Baytown Symphony Orchestra
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. May be repeated for credit.
Lecture Hrs = 3, Lab Hrs = 1
Pre/Corequisite: READ 300 or equivalent

MUEN 1125
Concert Band
An instrumental class, organized for the study and performance of wind ensemble and concert band, including literature that is both historical and contemporary. Admission by audition or instructor's consent. May be repeated for credit.
Lecture Hrs = 3, Lab Hrs = 1
Pre/Corequisite: READ 300 or equivalent

MUEN 1133
Woodwind Ensemble
Open to all Lee College students. Study of literature for small woodwind ensembles (4 or more students). Admission by audition or instructor's consent.
Lecture Hrs = 1, Lab Hrs = 1
Pre/Corequisite: READ 300 or equivalent

MUEN 1134
Brass Ensemble
Open to all Lee College students. Study of literature for small brass ensembles (4 or more students). Admission by audition or instructor's consent.
Lecture Hrs = 1, Lab Hrs = 1
Pre/Corequisite: READ 300 or equivalent

MUEN 1135
Jazz Ensemble
Practice and performance of various jazz idioms. Admissions by audition or instructor's consent. May be repeated for credit.
Lecture Hrs = 2, Lab Hrs = 2
Pre/Corequisite: READ 300 or equivalent

MUEN 1137
Guitar Ensemble
Study and performance of guitar ensemble literature (4 or more students). Admission by audition or instructor's consent. May be repeated for credit.
Lecture Hrs = 1, Lab Hrs = 1
Pre/Corequisite: READ 300 or equivalent

Ω indicates courses taught with optional honors contracts.
Σ indicates honors courses. See page 14 for additional information on the honors program.

MUEN 1138
Percussion Ensemble
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.
Lecture Hrs = 1, Lab Hrs = 1
Pre/Corequisite: READ 300 or equivalent

MUEN 1141
Lee College Concert Choir
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. Admission by audition or instructor's consent. May be repeated for credit.
Lecture Hrs = 3, Lab Hrs = 1
Pre/Corequisite: READ 300 or equivalent

MUEN 1142
Baytown Community Chorus
Open to all Lee College students. Study and performance of major choral literature. One three-hour class per week. Admission by audition or instructor's consent. May be repeated for credit.
Lecture Hrs = 3, Lab Hrs = 1
Pre/Corequisite: READ 300 or equivalent

MUEN 1152
Madrigal Singers
A vocal ensemble class organized for the study and performance of madrigal literature primarily from the 16th and 17th centuries. May be repeated for credit.
Lecture Hrs = 3, Lab Hrs = 0
Pre/Corequisite: READ 300 or equivalent

MUEN 1153
Madrigal Singers
(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
Prerequisite: MUEN 1152
Pre/Corequisite: READ 300 or equivalent

MUEN 1154
Swing Choir
The study of swing, popular and jazz vocal idoms in a small vocal chamber ensemble for the study and performance of contemporary literature.
Lecture Hrs = 3, Lab Hrs = 0
Prerequisite: READ 300 or equivalent

MUEN 2123
Baytown Symphony Orchestra
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. May be repeated for credit.
Lecture Hrs = 3, Lab Hrs = 1
Pre/Corequisite: READ 300 or equivalent

MUEN 2125
Concert Band
An instrumental class, organized for the study and performance of wind ensemble and concert band, including literature that is both historical and contemporary. Admission by audition or instructor's consent. May be repeated for credit.
Lecture Hrs = 3, Lab Hrs = 1
Pre/Corequisite: READ 300 or equivalent

MUEN 2133
Woodwind Ensemble
Open to all Lee College students. Study of literature for small woodwind ensembles (4 or more students). Admission by audition or instructor's consent. May be repeated for credit.
Lecture Hrs = 1, Lab Hrs = 1
Pre/Corequisite: READ 300 or equivalent

MUEN 2134
Brass Ensemble
Open to all Lee College students. Study of literature for small brass ensembles (4 or more students). Admission by audition or instructor's consent. May be repeated for credit.
Lecture Hrs = 1, Lab Hrs = 1
Pre/Corequisite: READ 300 or equivalent

MUEN 2135
Jazz Ensemble
Practice and performance of various jazz idioms. Admission by audition or instructor's consent. May be repeated for credit.
Lecture Hrs = 2, Lab Hrs = 2
Pre/Corequisite: READ 300 or equivalent

MUEN 2138
Percussion Ensemble
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. May be repeated for credit.
Lecture Hrs = 1, Lab Hrs = 1
Pre/Corequisite: READ 300 or equivalent

MUEN 2141
Lee College Concert Choir
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. Admission by audition or instructor's consent. May be repeated for credit.
Lecture Hrs = 3, Lab Hrs = 1
Pre/Corequisite: READ 300 or equivalent

MUEN 2142
Baytown Community Chorus
Open to all Lee College students. Study and performance of major choral literature. One three-hour class per week. Admission by audition or instructor's consent. May be repeated for credit.
Lecture Hrs = 3, Lab Hrs = 1
Pre/Corequisite: READ 300 or equivalent

MUSI 1181
Class Piano
Open to all students, including music majors preparing 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
Pre/Corequisite: READ 300 or equivalent

MUSI 1182
Class Piano
Open to all students, including music majors preparing 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
Pre/Corequisite: READ 300 or equivalent

MUSI 1183
Beginning Voice Class
Open to all Lee College students. Study of correct vocal production: posture, vowels, consonants, dynamics, phrasing and other information pertinent to the subject.
Lecture Hrs = 0, Lab Hrs = 2
Pre/Corequisite: READ 300 or equivalent

MUSI 1184
Intermediate Voice Class
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
Pre/Corequisite: READ 300 or equivalent

MUSI 1192
Guitar Class
For beginning guitar students. Study of basic guitar techniques, chords and repertoire.
Lecture Hrs = 0, Lab Hrs = 2
Pre/Corequisite: READ 300 or equivalent

MUSI 1193
Guitar Class
For beginning guitar students. Study of basic guitar techniques, chords and repertoire.
Lecture Hrs = 0, Lab Hrs = 2
Pre/Corequisite: READ 300 or equivalent

MUSI 1211
Music Theory I
Theoretical analysis and writing of tonal melody using diatonic harmony. Analysis and writing of small compositional forms. Open to all students with consent of instructor. Tutorial lab required.
Lecture Hrs = 2, Lab Hrs = 2
Pre/Corequisite: READ 300 or equivalent
Corequisite: MUSI 1216

MUSI 1212
Music Theory II
Theoretical analysis and writing of tonal melody using diatonic harmony. Introduction to secondary dominant chords and modulation to closely related keys. Analysis and writing of small composition forms. Open to all students with consent of instructor. Tutorial lab required.
Lecture Hrs = 2, Lab Hrs = 2
Prerequisite: MUSI 1211, READ 300 or equivalent
Corequisite: MUSI 1217

MUSI 1216
Elementary Sight Singing & Ear Training I
Singing tonal music in treble, bass, alto, and tenor clefs. Aural study, including dictation, of rhythm, melody, and diatonic harmony. 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. Tutorial lab required.
Lecture Hrs = 2, Lab Hrs = 1
Pre/Corequisite: READ 300 or equivalent
Corequisite: MUSI 1211

MUSI 1217
Elementary Sight Singing & EarTraining II
Singing tonal music in treble, bass, alto, and tenor clefs. Aural study, including dictation, of rhythm, melody, and diatonic harmony. 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. Tutorial lab required.
Lecture Hrs = 2, Lab Hrs = 1
Prerequisite: MUSI 1216, READ 300 or equivalent
Corequisite: MUSI 1212

MUSI 1263
Jazz Improvisation
Class groups discussing 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. May be repeated for credit.
Lecture Hrs = 1, Lab Hrs = 2
Pre/Corequisite: READ 300 or equivalent

MUSI 1301
Fundamentals of Music
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
Pre/Corequisite: READ 300 or equivalent

MUSI 1306
Music Appreciation
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
Pre/Corequisite: READ 300 or equivalent

MUSI 1307
Survey of Music Literature
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 introduction to score reading and music research techniques. Concert attendance is required. Performance/Lecture Series attendance is required.
Lecture Hrs = 3, Lab Hrs = 0
Pre/Corequisite: READ 300 or equivalent

MUSI 1308
Seminar In Church Music I
An introductory course in the field of church music. Designed for the aspiring church musician with little or no background. Seminar topics may include church liturgy as it relates to major and contemporary composers, responsibilities of the church musician from administrative to practical applications.
Lecture Hrs = 2, Lab Hrs = 2
Pre/Corequisite: READ 300 or equivalent

MUSI 1309
Seminar In Church Music II
An introductory course in the field of church music. Seminar topics may include rehearsal techniques dealing with children and adult choirs and bell choirs, repertory and youth and adult singing as it relates to major and contemporary composers.
Lecture Hrs = 2, Lab Hrs = 2
Pre/Corequisite: READ 300 or equivalent

MUSI 1310
Contemporary American Music
General survey of various styles of American Music. Topics may include jazz, ragtime, folk, rock, and contemporary art music.
Lecture Hrs = 3, Lab Hrs = 0
Prerequisite: READ 300 or equivalent

MUSI 1312
Theory and Analysis II
Designed to be taken concurrently with MUSI 1117. Open to all students with consent of instructor. One-hour tutorial laboratory per week.
Lecture Hrs = 3, Lab Hrs = 1
Prerequisite: MUSI 1311, READ 300 or equivalent
Corequisite: MUSI 1117

MUSI 2181
Class Piano
Open to all students, including music majors preparing 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
Pre/Corequisite: READ 300 or equivalent

MUSI 2182
Class Piano
Open to all students, including music majors preparing 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
Pre/Corequisite: READ 300 or equivalent

MUSI 2183
Advanced Voice Class
Concert and recital preparation.
Lecture Hrs = 0, Lab Hrs = 2 Note: Instructor's consent required to register for this course.
Prerequisite: READ 300 or equivalent

MUSI 2189
Music Cooperative
In conjunction with seminars or on-campus instruction, students will study various aspects of music unique to their interests or career objectives. Limited to 1 credit hour per semester. Course can be taken up to three times.
Lecture Hrs = 1, Lab Hrs = 0, External Hrs = 2
Prerequisite: COMM 2324, COMM 2220

Refer to page 74 for explanation of prerequisites, corequisites, or pre/corequisites.

MUSI 2211 Ω
Music Theory III
Advanced harmony part writing and keyboard analysis and writing of more advanced tonal harmony including chromaticism and extended tertian structures. Introduction to 20th century compositional procedures and survey of the traditional large forms of composition. Open to all students with consent of instructor. Transfer students admitted by examination. Study of 18th and 19th century harmonic practices, advanced hamonic techniques; complex choral vocabulary; all secondary dominants; leading tone chords and altered chords.
Lecture Hrs = 2, Lab Hrs = 2
Prerequisite: MUSI 1212
Pre/Corequisite: READ 300 or equivalent
Corequisite: MUSI 2217

MUSI 2212 Ω
Music Theory IV
Advanced harmony part writing and keyboard analysis and writing of more advanced tonal harmony including chromaticism and extended tertian structures. Introduction to 20th century compositional procedures and survey of the traditional large forms of composition. Open to all students with consent of instructor. Transfer students admitted by examination. Continued study of 18th and 19th century harmonic practices, advanced harmonic techniques; complex choral vocabulary; altered chords; distant modulations, and introduction to contrapuntal techniques.
Lecture Hrs = 2, Lab Hrs = 2
Prerequisite: MUSI 2211
Pre/Corequisite: READ 300 or equivalent
Corequisite: MUSI 2217

MUSI 2216
Advanced Sight Singing and Ear Training I
Singing more difficult tonal music including modal, ethnic and 20th century materials. Aural study, including dictation, or more complex rhythm, melody, chromatic harmony and extended tertian structures. Transfer students admitted by examination. Open to all students with consent of instructor. Tutorial lab required.
Lecture Hrs = 2, Lab Hrs = 1
Prerequisite: MUSI 1217, READ 300 or equivalent
Corequisite: MUSI 2211

MUSI 2217
Advanced Sight Singing and Ear Training II
Singing more difficult tonal music including modal, ethnic and 20th century materials. Aural study, including dictation, or more complex rhythm, melody, chromatic harmony and extended tertian structures. Transfer students admitted by examination. Open to all students with consent of instructor. Tutorial lab required.
Lecture Hrs = 2, Lab Hrs = 1
Prerequisite: MUSI 2216, READ 300 or equivalent
Corequisite: MUSI 2212

NDTE 1301
Film Interpretation of Weldments
A study of radiographic film, including exploration of radiographic basics, interpretation, and causes and effects of discontinuities.
Lecture Hrs = 2, Lab Hrs = 2
Pre/Corequisite: READ 300 or equivalent

NDTE 1310
Liquid Penetrant/Magnetic Particle Testing
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.
Lecture Hrs = 3, Lab Hrs = 3
Pre/Corequisite: READ 300 or equivalent

NDTE 2411
Preparation For Welding Inspection
General principles of welding inspection including welding processes, terms and definitions, welding discontinuities, 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
Pre/Corequisite: READ 300 or equivalent

PFPB 1305
Basic Blueprint Reading for Pipefitters
Reading and interpreting working drawings. Includes 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
Prerequisite: PFPB 1350
Pre/Corequisite: READ 300 or equivalent

PFPB 1350
Plumbing and Pipefitting Equipment and Safety
Safe use of hand tools, power tools, rigging, and power equipment used in the plumbing trade for installation of different plumbing systems.
Lecture Hrs=3, Lab Hrs 0
Pre/Corequisite: READ 300 or equivalent

PFPB 1408
Basic Pipefitting Skills
Mathematical operations necessary to calculate laying lenghts of threaded pipe fabrication. Identification and use of hand tools and power tools. Identification of pipe, pipe fittings, flanges, and fasteners used in the trade.
Lecture Hrs = 3, Lab Hrs = 3
Pre/Corequisite: READ 300 or equivalent

PFPB 2338
Blueprint Reading for Pipefitters
Orthographic and isometric views of piping for pipe fabrication. Special emphasis on vertical, horizontal, and rolling offsets. Includes dimensioning, material take-off, pipe specifications, and call outs.
Lecture Hrs = 3, Lab Hrs = 0
Prerequisite: PFPB 1305
Pre/Corequisite: READ 300 or equivalent

PFPB 2343
Pipe Practices
Identification, installation, and testing of steam traps and steam trap station components. Valve identification, application, and maintenance. Identification, storage, and handling of in-line specialties. Hydrostatic testing of process piping.
Lecture Hrs = 2, Lab Hrs = 2
Prerequisite: PFPB 2408
Pre/Corequisite: READ 300 or equivalent

PFPB 2401
Pipe Fabrication and Installation I
Pipe fabrication procedures of threaded, socketweld, and buttweld pipe joints. Includes pipe and tube bending with hand benders, saddling in and saddling on pipe brances to pipe headers, and fabrication and installation of pipe supports.
Lecture Hrs = 3, Lab Hrs = 3
Prerequisite: PFPB 1408
Pre/Corequisite: READ 300 or equivalent

PFPB 2408
Piping Standards and Materials
Identification, description, and application of piping standards and specifications. Includes identification and use of various metallic and non-metallic piping materials, identification and installation of valves, and material take-offs.
Lecture Hrs = 3, Lab Hrs = 3
Prerequisite: PFPB 2401
Pre/Corequisite: READ 300 or equivalent

PFPB 2441
Pipe Fabrication and Installation II
Advanced pipe fabrication procedures of threaded, socketweld, and buttweld pipe joints. Layout and fabrication of vertical, horizontal, and rolling offsets using 45-degree fitting and odd-angle fittings.
Lecture Hrs = 3, Lab Hrs = 3
Prerequisite: PFPB 2401
Pre/Corequisite: READ 300 or equivalent

PFPB 2449
Field Measuring, Sketching, and Layout
Use, care, and setup of transit and level. Includes field dimensioning, sketching, and layout of future process piping. Emphasizes advanced trade math including the use of trigonometric functions and tables.
Lecture Hrs=3, Lab Hrs 3
Prerequisite: PFPB 2338
Pre/Corequisite: READ 300 or equivalent

PHED 1109
Cardio Fitness
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
Pre/Corequisite: READ 300 or equivalent

PHED 1110
Exercise Endurance and Power
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
Pre/Corequisite: READ 300 or equivalent

PHED 1111
Circuit Training
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
Pre/Corequisite: READ 300 or equivalent

PHED 1131
Aquatic Fitness
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
Pre/Corequisite: READ 300 or equivalent

PHED 1132
Aquatic Cardio Training
A course designed to emphasize cardiovascular training in the water. Emphasis will be on reducing resting heart rates.
Lecture Hrs = 1, Lab Hrs = 2
Pre/Corequisite: READ 300 or equivalent

PHED 1133
Aquatic Power Training
A course designed to emphasize the component of power movements in water such as jumping, skipping and running. Movements will be explosive within short bursts of time. Intervals of work will be a major component of this class.
Lecture Hrs = 1, Lab Hrs = 2
Pre/Corequisite: READ 300 or equivalent

PHED 1134
Hatha Yoga and Breathing
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
Pre/Corequisite: READ 300 or equivalent

PHED 1135
Hatha Yoga and Postures
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
Pre/Corequisite: READ 300 or equivalent

PHED 1136
Hatha Yoga and Nutrition
A course designed to emphasize the techniques of Hatha yoga postures with an emphasis on improving flexibility and range of motion.
Lecture Hrs = 1, Lab Hrs = 2
Pre/Corequisite: READ 300 or equivalent

PHED 1137
Hatha Yoga & Meditation
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
Pre/Corequisite: READ 300 or equivalent

PHED 1138
Hatha Yoga and Relaxation
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
Pre/Corequisite: READ 300 or equivalent

PHED 1139
Hatha Yoga and Flexibility
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
Pre/Corequisite: READ 300 or equivalent

PHED 1140
Hatha Yoga and Balance
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
Pre/Corequisite: READ 300 or equivalent

PHED 1141
Tennis Movement
A course designed to emphasize the footwork patterns necessary for efficient movement to various ball positions for tennis.
Lecture Hrs = 1, Lab Hrs = 2
Pre/Corequisite: READ 300 or equivalent

PHED 2105
Exercise/Weight Management Fitness
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
Pre/Corequisite: READ 300 or equivalent

PHED 2106
Cross Training Fitness
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
Pre/Corequisite: READ 300 or equivalent

PHED 2107
Personal Fitness
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
Pre/Corequisite: READ 300 or equivalent

PHED 2108
Elite Fitness
A course designed to use various fitness programs with increased intensity to promote training at a high level.
Lecture Hrs = 1, Lab Hrs = 2
Pre/Corequisite: READ 300 or equivalent

PHED 2132
Aquatic Weight Management
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
Pre/Corequisite: READ 300 or equivalent

PHED 2133
Aquatic Endurance Training
A course designed to emphasize the endurance component of fitness. Duration of exercise will be emphasized.
Lecture Hrs = 1, Lab Hrs = 2
Pre/Corequisite: READ 300 or equivalent

PHED 2134
Aquatic Flexibility Training
A course designed to include all components of fitness with emphasis in range of motion to improve flexibility.
Lecture Hrs = 1, Lab Hrs = 2
Pre/Corequisite: READ 300 or equivalent

PHED 2135
Aquatic Cross Training
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
Pre/Corequisite: READ 300 or equivalent

PHED 2136
Aquatic Personal Training
A course emphasizing individual goals of fitness which are incorporated in a water exercise program.
Lecture Hrs = 1, Lab Hrs = 2
Pre/Corequisite: READ 300 or equivalent

PHED 2139
Hatha Yoga & Advance Techniques
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
Pre/Corequisite: READ 300 or equivalent

PHED 2140
Hatha Yoga and Personal Health
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
Pre/Corequisite: READ 300 or equivalent

PHIL 1301 Ω
Introduction to Philosophy
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
Prerequisite: ENGL 301 or equivalent, READ 302 or equivalent

PHIL 1304 Ω
Introduction to World Religions
An introduction to selected world religions, including but not limited to: Hinduism; Buddhism; Jainism; Sikhism; Taoism; Confucianism; Shinto; Judaism; and Christianity.
Lecture Hrs = 3, Lab Hrs = 0
Prerequisite: ENGL 301 or equivalent, READ 302 or equivalent

Ω indicates courses taught with optional honors contracts.
Σ indicates honors courses. See page 14 for additional information on the honors program.

Refer to page 74 for explanation of prerequisites, corequisites, or pre/corequisites.

PHIL 2303
Introduction to Logic
This course coveres the nature and methods of clear and critical thinking skills and methods of reasoning, such as deduction, induction, scientific reasoning, and fallacies.
Lecture Hrs = 3, Lab Hrs = 0
Prerequisite: ENGL 301 or equivalent, READ 302 or equivalent

PHIL 2306
Introduction to Ethics
An intermediate level philosophy course which 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 the use of science and technology.
Lecture Hrs = 3, Lab Hrs = 0
Prerequisite: PHIL 1301, ENGL 301 or equivalent, READ 302 or equivalent

PHYS 1401 Ω
College Physics I: Mechanics and Heat
Physics 1401 and 1402 are designed to meet the needs of students who need one year of algebra/trigonometry - based physics. 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
Prerequisite: READ 302 or equivalent
Pre/Corequisite: MATH 1414 or equivalent

PHYS 1402 Ω
College Physics II: Sound, Electricity, Magnetism, Light, & Modern Physics
Physics 1401 and 1402 are designed to meet the needs of students who need one year of algebra/trigonometry - based physics. 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
Prerequisite: PHYS 1401, READ 302 or equivalent

PHYS 1405
General Physics 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
Prerequisite: READ 302 or equivalent
Pre/Corequisite: MATH 320 or equivalent

PHYS 1407
General Physics II
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
Prerequisite: READ 302 or equivalent
Pre/Corequisite: MATH 320 or equivalent

PHYS 1411
Introductory Astronomy I
An introductory course, will concentrate on the origin, life, and fate of the solar system, the various bodies in the solar system (planets, satellites, meteors, comets, and asteroids), the solar system mechanics. Theories about the structure and origin of the solar system, with emphasis on recent discoveries will be included.
Lecture Hrs = 3, Lab Hrs = 3
Prerequisite: MATH 1414 or equivalent, READ 302 or equivalent

PHYS 1412
Introductory Astronomy II
An introductory course, will concentrate on the origin, life and fate of the stars and the universe, the various objects in the universe, the exploration of the universe by astronomers, and the understanding of the principles that lie behind the functioning of the universe. Discussion of atomic spectra, nuclear energy, and astronomical tools (such as optical, radio, and other telescopes and image enhancers) as they provide knowledge about distant objects will be included. Recent discoveries about quasars, black holes, and cosmology will be emphasized.
Lecture Hrs = 3, Lab Hrs = 3
Prerequisite: PHYS 1411

PHYS 1415
Physical Science
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
Pre/Corequisite: MATH 320 or equivalent, READ 301 or equivalent

PHYS 2425 Ω
Mechanics and Heat
Principles of mechanics, thermodynamics, kinetic theory of gases, and mechanics of solids and fluids; also engineering applications of physical principles by means of computer numerical methods; primarily for science, mathematics, and engineering students.
Lecture Hrs = 3, Lab Hrs = 3
Prerequisite: MATH 2413, READ 302 or equivalent

PHYS 2426 Ω
Electricity, Optics and Waves
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
Prerequisite: PHYS 2425, READ 302 or equivalent

POFI 1341
Computer Applications II
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
Prerequisite: POFI 1401, READ 301 or equivalent

POFI 1349
Spreadsheets
In-depth coverage in the use of a spreadsheet software focusing on business application.
Lecture Hrs = 3, Lab Hrs = 1
Prerequisite: POFT 1321, POFI 1401, READ 301 or equivalent

POFI 1401
Computer Applications I
Overview of computer office 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 Note: This course requires keyboarding proficiency.
Prerequisite: READ 301 or equivalent

POFI 2301
Word Processing
In-depth coverage of word processing software focusing on business applications.
Lecture Hrs = 3, Lab Hrs = 1 Note: This course requires keyboarding proficiency.
Prerequisite: READ 301 or equivalent

POFI 2331
Desktop Publishing for the Office
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, multiple page displays, and business applications.
Lecture Hrs = 3, Lab Hrs = 1 Note: This course requires keyboarding proficiency.
Prerequisite: READ 301 or equivalent

POFI 2340
Advanced Word Processing
Advanced applications in merging, macros, graphics, and desktop publishing. Includes extensive formatting for technical documents. Emphasis on business applications.
Lecture Hrs = 3, Lab Hrs = 1
Prerequisite: POFI 2301, READ 301 or equivalent

POFT 1127
Introduction to Keyboarding
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 = 0, Lab Hrs = 3
Pre/Corequisite: READ 300 or equivalent

POFT 1132
Workplace Diversity
Gender, cultural background, age, and other factors affecting coworker/client relationships. Includes behavioral expectations and standards in the business environment. An overview of workplace diversity.
Lecture Hrs = 1, Lab Hrs = 0
Prerequisite: READ 301 or equivalent

POFT 1301
Business English
Introduction to a practical application of basic language usage skills with emphasis on fundamentals of writing and editing for business.
Lecture Hrs = 3, Lab Hrs = 0
Prerequisite: READ 301 or equivalent

Ω indicates courses taught with optional honors contracts.
Σ indicates honors courses. See page 14 for additional information on the honors program.

POFT 1309
Administrative Office Procedures I
Study of current office procedures, duties, and responsibilities applicable to an office environment.
Lecture Hrs = 3, Lab Hrs = 0
Prerequisite: READ 301 or equivalent

POFT 1321
Business Math
Instruction in the fundamentals of business mathematics including analytical and problem-solving skills for critical thinking in business applications.
Lecture Hrs = 3, Lab Hrs = 0
Prerequisite: READ 301 or equivalent

POFT 1329
Beginning Keyboarding
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
Prerequisite: READ 301 or equivalent

POFT 1349
Administrative Office Procedures II
In-depth coverage of office applications with special emphasis on decision making, goal setting, managment theories, and critical thinking.
Lecture Hrs = 3, Lab Hrs = 0
Prerequisite: POFT 1309, READ 301 or equivalent

POFT 1364
Practicum (or Field Experience) - Administrative Assistant and Secretarial Science, General
Practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student.
Lecture Hrs = 0, Lab Hrs = 0, External Hrs = 21
Prerequisite: READ 301 or equivalent

POFT 1365
Practicum (or Field Experience) - Administrative Assistant and Secretarial Science, General
Practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student.
Lecture Hrs = 0, Lab Hrs = 0, External Hrs = 21
Prerequisite: READ 301 or equivalent

POFT 2301
Intermediate Keyboarding
A continuation of keyboarding skills in document formatting, emphasizing speed, and accuracy. Emphasis on proofreading, editing, and following instructions, and keying documents from various copy.
Lecture Hrs = 3, Lab Hrs = 1 Note: This course requires keyboarding proficiency.
Prerequisite: READ 301 or equivalent

POFT 2312
Business Correspondence & Communication
Development of writing and presentation skills to produce effective business communictions. Skill development in practical applications which emphasize the improvement of writing skills necessary for effective business communication. Emphasis is given to developing business letters, reports, memos, and employment communications; improving writing, speaking, and listening skills; and to preparing attractive business documents.
Lecture Hrs = 3, Lab Hrs = 0
Prerequisite: READ 301 or equivalent
Pre/Corequisite: POFT 1301 or ENGL 1301

POFT 2331
Administrative Systems
Advanced concepts of project management and office procedures utilizing integration of previously learned office skills. (Spring only)
Lecture Hrs = 3, Lab Hrs = 1
Prerequisite: Completion of Office Assistant and Administrative Assistant Certificates, READ 301 or equivalent

POFT 2364
Practicum (or Field Experience) - Administrative Assistant and Secretarial Science, General
Practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student.
Lecture Hrs = 0, Lab Hrs = 0, External Hrs = 21
Prerequisite: READ 301 or equivalent

PSYC 2301
Introduction to Psychology
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
Prerequisite: ENGL 301 or equivalent, READ 302 or equivalent

PSYC 2308 Ω
Child Psychology
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
Prerequisite: PSYC 2301, READ 302 or equivalent, ENGL 301 or equivalent

PSYC 2314 Ω
Life Span Growth and Development
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
Prerequisite: PSYC 2301, READ 302 or equivalent, ENGL 301 or equivalent

PSYC 2316 Ω
Psychology of Personality
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
Prerequisite: PSYC 2301, READ 302 or equivalent, ENGL 301 or equivalent

PSYC 2317
Statistics for Behavioral Sciences
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
Prerequisite: PSYC 2301, READ 302 or equivalent, ENGL 301 or equivalent

PSYC 2318
Juvenile Delinquency
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
Prerequisite: PSYC 2301, READ 302 or equivalent, ENGL 301 or equivalent

PSYT 1325
Death and Dying
Study fo the cultural and social norms, values, beliefs, and activities associated with the dying and their survivors. Topics include theories, communication skills, and activities to assist with coping for the dying and their survivors.
Lecture Hrs = 3, Lab Hrs = 0
Pre/Corequisite: READ 300 or equivalent

PTAC 1302
Introduction to Process Technology
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.
Lecture Hrs = 3, Lab Hrs = 0
Prerequisite: READ 301 or equivalent

PTAC 1308
Safety, Health, and Environment I
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.
Lecture Hrs = 3, Lab Hrs = 0
Prerequisite: READ 301 or equivalent

PTAC 1332
Process Instumentation I
Study of the instruments and instrument systems used in the process industry including terminology, primary variables, symbology, control loops, and basic troubleshooting.
Lecture Hrs = 3, Lab Hrs = 0
Prerequisite: READ 301 or equivalent

PTAC 1410
Process Technology I - Equipment
Instruction in the use of common process equipment.
Lecture Hrs = 3, Lab Hrs = 3
Prerequisite: READ 301 or equivalent

PTAC 2314
Principles of Quality
Study of the background and application of quality concepts. Topics include team skills, quality tools, statistics, economics and continuous improvement.
Lecture Hrs = 3, Lab Hrs = 0
Prerequisite: READ 301 or equivalent

PTAC 2346
Process Troubleshooting
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.
Lecture Hrs = 3, Lab Hrs = 0
Prerequisite: PTAC 1410, READ 301 or equivalent

PTAC 2420
Process Technology II - Systems
Study of the interrelation of process equipment as process systems including related scientific principles.
Lecture Hrs = 3, Lab Hrs = 3
Prerequisite: PTAC 1410, READ 301 or equivalent

PTAC 2438
Process Technology III Operations
This course combines systems into operational processes with emphasis on operations under various conditions.
Lecture Hrs = 3, Lab Hrs = 3
Prerequisite: PTAC 2420, READ 301 or equivalent

READ 300
Beginning College Reading Skills
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

READ 301
Intermediate College Reading Skills
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
Prerequisite: READ 300 or equivalent

READ 302
Advanced College Reading Skills
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
Prerequisite: READ 301 or equivalent

RNSG 1146
Legal and Ethical Issues for Nurses
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, HIPPA Fee
Prerequisite: Admission to RN or RNT Program, RNSG 1162, RNSG 1251, RNSG 2160, RNSG 2213, SPNL 1301
Corequisite: RNSG 2121, RNSG 2331, RNSG 2362

RNSG 1162
Clinical-Nursing-Registered Nurse Training
A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional. Progression: student must pass RNSG 1251 and RNSG 1162 concurrently to progress to next nursing level.
Lecture Hrs = 0, Lab Hrs = 0, Clinical Hrs = 6, Insurance Fee
Prerequisite: Admission to RN or RNT Program, RNSG 1343, RNSG 1362, RNSG 2161, RNSG 2201, BIOL 2421, RN Only: ENGL 1302, Humanities, Oral Communication, and Computer Literacy electives
Pre/Corequisite: SPNL 1301
Corequisite: RNSG 1251, RNSG 2160, RNSG 2213

RNSG 1205
Nursing Skills I
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. Progression: student must pass RNSG 1209 and RNSG 1205 concurrently to progress.
Lecture Hrs = 1, Lab Hrs = 4
Prerequisite: Admission to RN Program
Pre/Corequisite: BIOL 2402, PSYC 2314,
Corequisite: RNSG 1209, RNSG 1341, RNSG 1361

RNSG 1209
Introduction to Nursing
Overview of nursing and the role of the professional nurse as a provider of care, coordinator of care, and member of a profession. Topics include knowledge, judgment, skills and professional values with a legal/ethical framework. Progression: student must pass RNSG 1209 and RNSG 1205 concurrently to progress.
Lecture Hrs = 2, Lab Hrs = 0, NLN Testing Fee
Prerequisite: Admission to RN Program
Pre/Corequisite: BIOL 2402, PSYC 2314
Corequisite: RNSG 1205, RNSG 1341, RNSG 1361

RNSG 1251
Care of the Childbearing Family
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. Progression: student must pass RNSG 1251 and RNSG 1162 concurrently to progress to next nursing level.
Lecture Hrs = 2, Lab Hrs = 0, NLN Testing Fee
Prerequisite: Admission to RN or RNT Program, RNSG 1343, RNSG 1362, RNSG 2161, RNSG 2201, BIOL 2421, RN Only: ENGL 1302; Humanities, Computer Literacy, and Oral Communication electives
Pre/Corequisite: SPNL 1301
Corequisite: RNSG 1162, RNSG 2160, RNSG 2213

Ω indicates courses taught with optional honors contracts.
Σ indicates honors courses. See page 14 for additional information on the honors program.

RNSG 1301
Pharmacology
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. Note that the RN Math Requirement that is a prerequisite for this course can be satisfied by (a) passing the math portion of TSK, (b)successfully completing MATH 320, (c) earning a grade of C or better in MATH 110, or (d) earning a grade of C or better in any college-level math course attempted in the past five years.
Lecture Hrs = 3, Lab Hrs = 0
Prerequisite: RN Math Requirement, READ 302 or equivalent
Pre/Corequisite: BIOL 2401 or BIOL 2404

RNSG 1341
Common Concepts of Adult Health
Study of the general principles of caring for selected adult clients and families in structured settings with common medical-surgical health care needs related to each body system. Emphasis on knowledge judgment, skills, and professional values within a legal/ethical framework. Progression: student must pass RNSG 1341 and RNSG 1361 concurrently to progress to next nursing level.
Lecture Hrs = 3, Lab Hrs = 0, NLN Testing Fee
Prerequisite: Admission to RN Program
Pre/Corequisite: BIOL 2402, PSYC 2314
Corequisite: RNSG 1205, RNSG 1209, RNSG 1361

RNSG 1343 Ω
Complex Concepts of Adult Health
Integration of previous knowledge and skills related to common adult health needs into the continued development of the professional nurse as a provider of care, coordinator of care, and member of a profession in the care of adult clients/families in structured health care settings with complex medical-surgical health care needs associated with each body system. Emphasis on knowlege, judgments, skills, and professional values within a legal/ethical framework. Progression: student must pass RNSG 1343 and RNSG 1362 concurrently to progress to next nursing level.
Lecture Hrs = 3, Lab Hrs = 0, NLN Testing Fee
Prerequisite: Admission to RN Program, RNSG 1205, RNSG 1209, RNSG 1341, RNSG 1361, BIOL 2402, PSYC 2314, or Admission to RNT Prog, RNSG 2207, BIOL 2421
Pre/Corequisite: BIOL 2421
Corequisite: RNSG 1362, RNSG 2161, RNSG 2201

RNSG 1361
Clinical-Nursing-Registered Nurse Training
A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional. Progression: student must pass RNSG 1341 and RNSG 1361 concurrently to progress to next nursing level.
Lecture Hrs = 0, Lab Hrs = 0, Clinical Hrs = 9, Insurance Fee
Prerequisite: Admission to RN Program
Pre/Corequisite: BIOL 2402, PSYC 2314
Corequisite: RNSG 1205, RNSG 1209, RNSG 1341

RNSG 1362
Clinical-Nursing-Registered Nurse Training
A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional. Progression: student must pass RNSG 1343 and RNSG 1362 concurrently to progress to next level.
Lecture Hrs = 0, Lab Hrs = 0, Clinical Hrs = 9, Insurance Fee
Prerequisite: Admission to RN Program, RNSG 1205, RNSG 1209, RNSG 1341, RNSG 1361, BIOL 2402, PSYC 2314, or Admission to RNT Prog, RNSG 2207, BIOL 2421
Pre/Corequisite: BIOL 2421
Corequisite: RNSG 1343, RNSG 2161, RNSG 2201

RNSG 2121
Management of Client Care
Exploration of leadership and management principles applicable to the role of the nurse as a provider of care, coordinator of care, and member of a profession. Includes application of knowledge, judgment, skills, and professional values within a legal/ethical framework.
Lecture Hrs = 0, Lab Hrs = 0, Clinical Hrs = 4, NLN Testing Fee
Prerequisite: Admission to RN or RNT Program, RNSG 1162, RNSG 1251, RNSG 2160, RNSG 2213, RNSG 2331, RNSG 2362 SPNL 1301
Corequisite: RNSG 1146

RNSG 2160
Clinical-Nursing-Registered Nurse Training
A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional. Progression: student must pass RNSG 2213 and RNSG 2160 concurrently to progress to the next nursing level.
Lecture Hrs = 0, Lab Hrs = 0, Clinical Hrs = 6, Insurance Fee
Prerequisite: Admission to RN or RNT Program, RNSG 1343, RNSG 1362, RNSG 2161, RNSG 2201, BIOL 2421 RN Only, ENGL 1302; Humanities, Computer Literacy, and Oral Communication electives
Pre/Corequisite: SPNL 1301
Corequisite: RNSG 1162, RNSG 1251, RNSG 2213

RNSG 2161
Cliinical-Nursing-Registered Nurse Training
A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional. Progression: student must pass RNSG 2201 and RNSG 2161 concurrently to progress to next nursing level.
Lecture Hrs = 0, Lab Hrs = 0, Clinical Hrs = 6, Insurance Fee
Prerequisite: Admission to RN Program, RNSG 1205, RNSG 1209, RNSG 1341, RNSG 1361, BIOL 2402, PSYC 2314, or Adm to RNT Prog, RNSG 2207, BIOL 2421
Pre/Corequisite: BIOL 2421
Corequisite: RNSG 1343, RNSG 1362, RNSG 2201

RNSG 2201
Care of Children and Families
Study of concepts related to the provision of nursing care for children and their families, emphasizing judgment, and professional values within legal/ethical framework. Progression: student must pass RNSG 2201 and RNSG 2161 concurrently to progress to next nursing level.
Lecture Hrs = 2, Lab Hrs = 0, NLN Testing Fee
Prerequisite: Admission to RN Program, RNSG 1205, RNSG 1209, RNSG 1341, RNSG 1361, BIOL 2402, PSYC 2314, or Adm to RNT Prog, RNSG 2207, BIOL 2421
Pre/Corequisite: BIOL 2421
Corequisite: RNSG 1343, RNSG 1362, RNSG 2161

RNSG 2207
Transition to Nursing Practice
Introduction to selected concepts related to the role of the professional 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
Prerequisite: Adm to RNT Program

RNSG 2213
Mental Health Nursing
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. Progression: student must pass RNSG 2213 and RNSG 2160 concurrently to progress to next nursing level.
Lecture Hrs = 2, Lab Hrs = 0, NLN Testing Fee
Prerequisite: Admission to RN or RNT Program, RNSG 1343, RNSG 1362, RNSG 2161, RNSG 2201, BIOL 2421 RN Only: ENGL 1302; Humanities, Computer Literacy, and Oral Communication electives
Pre/Corequisite: SPNL 1301
Corequisite: RNSG 1162, RNSG 1251, RNSG 2160

RNSG 2331
Advanced Concepts of Adult Health
Application of advanced concepts and skills for the development of the professional nurse's roles in complex nursing situations with adult clients/families with complex health needs involving multiple body systems in intermediate and critical care settings. Emphasis on knowledge, judgment, skills, and professional values within a legal/ethical framework. Progression: student must pass RNSG 2331 and RNSG 2362 concurrently to progress.
Lecture Hrs = 3, Lab Hrs = 0, NLN Testing Fee
Prerequisite: Admission to RN or RNT Program, RNSG 1162, RNSG 1251, RNSG 2160, RNSG 2213, SPNL 1301
Corequisite: RNSG 1146, RNSG 2362

RNSG 2362 Ω
Clinical-Nursing-Registered Nurse Training
A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional.
Lecture Hrs = 0, Lab Hrs = 0, Clinical Hrs = 9, Insurance Fee
Prerequisite: Admission to RN or RNT Program, RNSG 1162, RNSG 1251, RNSG 2160, RNSG 2213, SPNL 1301
Corequisite: RNSG 1146, RNSG 2331

SCIT 1318
Applied Physics I
An introduction to physics for students who have limited backgrounds in science and mathematics. Topics include motion, solid mechanics and fluid mechanics, properties of matter, heat, and thermodynamics.
Lecture Hrs = 2, Lab Hrs = 2
Prerequisite: READ 301 or equivalent

SCIT 1414
Applied General Chemistry I
Study of the general concepts of chemistry with an emphasis on industrial applications.
Lecture Hrs = 3, Lab Hrs = 3
Pre/Corequisite: READ 301 or equivalent

SGNL 1401
Beginning American Sign Language
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
Prerequisite: READ 300 or equivalent

SGNL 1402
Advanced American Sign Language
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
Prerequisite: SGNL 1401, READ 300 or equivalent

SGNL 2301
American Sign Language III: Conversation, Interpreting, Literature, Folklore
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
Prerequisite: SGNL 1402, READ 300 or equivalent

SGNL 2302
American Sign Language IV: Conversation, Interpreting, Literature, Folklore
A continuation of SGNL 2301.
Lecture Hrs = 3, Lab Hrs = 2
Prerequisite: SGNL 2301

SOCI 1301 Ω
Introductory Sociology
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
Prerequisite: ENGL 301 or equivalent, READ 302 or equivalent

Refer to page 74 for explanation of prerequisites, corequisites, or pre/corequisites.

SOCI 1306
Social Problems
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
Prerequisite: ENGL 301 or equivalent, READ 302 or equivalent

SOCI 2301 Ω
Marriage and the Family
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
Prerequisite: ENGL 301 or equivalent, READ 302 or equivalent

SOCI 2319 Ω
Multi-Cultural Studies
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
Prerequisite: SOCI 1301, ENGL 301 or equivalent, READ 302 or equivalent

SOCI 2336
Criminology
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
Prerequisite: ENGL 301 or equivalent, READ 302 or equivalent

SOCI 2339
Juvenile Delinquency
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
Prerequisite: ENGL 301 or equivalent, READ 302 or equivalent

SOCW 2361
Introduction to Social Work
Philosophy and techniques of social work, survey of its fields, and the historical development of United States system are discussed.
Lecture Hrs = 3, Lab Hrs = 0
Prerequisite: ENGL 301 or equivalent, READ 302 or equivalent

SOCW 2362
Social Welfare as a Social Institution
This is an introduction to the study of modern social work, wihin the context of the institution of social welfare, the underlying philosophy and ethics of social work, and the major divisions and types of social work together with their methods and objectives.
Lecture Hrs = 3, Lab Hrs = 0
Prerequisite: ENGL 301 or equivalent, READ 302 or equivalent

SPAN 1411
Beginning Spanish
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
Prerequisite: READ 300 or equivalent

SPAN 1412
Intermediate Spanish
Continuation of SPAN 1411.
Lecture Hrs = 3, Lab Hrs = 3
Prerequisite: SPAN 1411, READ 300 or equivalent

SPAN 2311
Spanish - Reading, Conversation, Composition and Grammar Review
Emphasis on oral fluency, grammar, composition, and the reading of modern Spanish prose.
Lecture Hrs = 3, Lab Hrs = 0
Prerequisite: SPAN 1412, READ 300 or equivalent

SPAN 2312
Spanish - Reading, Conversation, Composition and Grammar Review
Continuation of SPAN 2311.
Lecture Hrs = 3, Lab Hrs = 0
Prerequisite: SPAN 2311 or equivalent transfer credit in Spanish

SPCH 1145
Forensic Workshop
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
Pre/Corequisite: READ 300 or equivalent

SPCH 1315
Principles of Public Speaking
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
Prerequisite: READ 300 or equivalent

SPCH 1318
Interpersonal Communication
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
Prerequisite: READ 300 or equivalent

Ω indicates courses taught with optional honors contracts.
Σ indicates honors courses. See page 14 for additional information on the honors program.

SPCH 1321
Business and Professional Speech
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
Prerequisite: READ 300 or equivalent

SPCH 1342
Voice and Diction
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
Prerequisite: READ 300 or equivalent

SPCH 2341
Oral Interpretation
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
Prerequisite: READ 300 or equivalent

SPNL 1301
Health Care Spanish
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
Prerequisite: READ 302 or equivalent

TECA 1303
Family, School and Community
A study of the child in relation to the family, school and community. Topics include parent education and participation in the learning process, family and community lifestyles, child abuse, and contemporary family issues. This course includes a minimum of 30 contact hours of field experience with children, infancy through age 12, in varied settings with diverse populations. The course aligns with the State Board for Education Certification Pedagogy and Professsional Responsibilities.
Lecture Hrs = 3, Lab Hrs = 2
Prerequisite: READ 301 or equivalent

TECA 1311
Educating Young Children
An introduction to the education of young children, including developmentally appropriate practices and programs, theoretical and historical perspectives, ethical, and professional responsibilities, and current issues. The course includes a minimum of 30 contact hours of field experience with children, infancy through age 12, in varied settings with diverse populations. The course aligns with the State Board of Education Certification Pedagogy and Professional Responsibilities.
Lecture Hrs = 3, Lab Hrs = 2
Prerequisite: READ 301 or equivalent

TECA 1318
Wellness of the Young Child
A study of factors that impact the well-being of the young child, including healthy behavior, food, nutrition, fitness, and safety practices and regulations. The course includes a minimum of 30 contact hours of field experience with children, infancy through age 13, in varied settings with diverse populations. The course aligns with the State Board of Education Certification Pedagogy and Professional Responsibilities.
Lecture Hrs = 3, Lab Hrs = 2
Prerequisite: READ 301 or equivalent

TECA 1354
Child Growth and Development
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
Prerequisite: READ 301 or equivalent

TECM 1341
Technical Algebra
Application of algebra to technical occupations. Topics include principles of linear equations, simultaneous equations, quadratic equations, and manipulation of powers and roots. Emphasis on stated word problems relevant to technical and vocational occupations.
Lecture Hrs = 3, Lab Hrs = 0
Prerequisite: MATH 310 or equivalent, READ 300 or equivalent

TECM 1349
Technical Math Applications
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
Pre/Corequisite: READ 300 or equivalent

VNSG 1219
Professional Development
Study of the importance of professional growth. Topics include the role of the licensed vocational nurse in the multi-disciplinary health care team, professional organizations, and continuing education.
Lecture Hrs = 2, Lab Hrs = 0, NLN Testing Fee
Prerequisite: ADM to VN Program, VNSG 1331, VNSG 1432, VNSG 2461
Corequisite: VNSG 1330, VNSG 2331, VNSG 2361

VNSG 1304
Foundations of Nursing
Introduction to the nursing profession including history, standards of practice, legal and ethical issues, and role of the vocational nurse. Topics include mental health, therapeutic communication, cultural and spiritual diversity, nursing process, and holistic awareness. This course will also include introduction to the principles of nutrition.
Lecture Hrs = 3, Lab Hrs = 0, HIPPA Fee
Pre/Corequisite: BIOL 2404 (B or Better), HITT 1305
Corequisite: VNSG 1402, VNSG 1329, VNSG 1363

VNSG 1329
Medical-Surgical Nursing I
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
Pre/Corequisite: BIOL 2404 (B or Better), HITT 1305
Corequisite: VNSG 1304, VNSG 1363, VNSG 1402

VNSG 1330
Maternal-Neonatal Nursing
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
Prerequisite: VNSG 1331, VNSG 1432, VNSG 2461
Corequisite: VNSG 1219, VNSG 2331, VNSG 2361

VNSG 1331
Pharmacology
Fundamentals of medications and their diagnostic, therapeutic, and curative effects. Includes nursing interventions utilizing the nursing process.
Lecture Hrs = 3, Lab Hrs = 0
Prerequisite: VNSG 1304, VNSG 1329, VNSG 1363, VNSG 1402, BIOL 2404 (B or Better)
Corequisite: VNSG 1432, VNSG 2461

VNSG 1363
Clinical - Licensed Vocational Nurse (LVN) Training
A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional.
Lecture Hrs = 0, Lab Hrs = 0, External Lab = 15, Insurance Fee
Pre/Corequisite: BIOL 2404 (B or Better), HITT 1305
Corequisite: VNSG 1304, VNSG 1329, VNSG 1402

VNSG 1402
Applied Nursing Skills I
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 = 3, Lab Hrs = 4
Pre/Corequisite: BIOL 2404 (B or Better), HITT 1305
Corequisite: VNSG 1304, VNSG 1329, VNSG 1363

VNSG 1432
Medical-Surgical Nursing II
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 = 3, Lab Hrs = 2, NLN Testing Fee
Prerequisite: VNSG 1304, VNSG 1329, VNSG 1363, VNSG 1402, BIOL 2404 (B or Better)
Pre/Corequisite: HITT 1305
Corequisite: VNSG 1331, VNSG 2461

VNSG 2331
Advanced Nursing Skills
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 = 2, Lab Hrs = 4
Prerequisite: VNSG 1331, VNSG 1432, VNSG 2461
Corequisite: VNSG 1219, VNSG 1330, VNSG 2361

VNSG 2361
Clinical - Licensed Vocational Nurse (LVN) Training
A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional.
Lecture Hrs = 0, Lab Hrs = 0, External Lab = 18, Insurance, NLN Testing Fee
Prerequisite: VNSG 1331, VNSG 1432, VNSG 2461
Corequisite: VNSG 1219, VNSG 1330, VNSG 2331

VNSG 2461
Clinical - Licensed Vocational Nurse (LVN) Training
A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional.
Lecture Hrs = 0, Lab Hrs = 0, External Lab = 20, Insurance Fee.
Prerequisite: VNSG 1304, VNSG 1329, VNSG 1363, VNSG 1402, BIOL 2404 (B or Better)
Pre/Corequisite: HITT 1305
Corequisite: VNSG 1331, VNSG 1432

WLDG 1313
Introduction to Blueprint Reading for Welders
A study of industrial blueprints. Emphasis placed on terminology, 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
Pre/Corequisite: READ 300 or equivalent

WLDG 1323
Welding Safety, Tools, and Equipment
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
Pre/Corequisite: READ 300 or equivalent

Ω indicates courses taught with optional honors contracts.
Σ indicates honors courses. See page 14 for additional information on the honors program.

Refer to page 74 for explanation of prerequisites, corequisites, or pre/corequisites.

WLDG 1327
Welding Codes
An in-depth study of welding codes and their development in accordance with structural standards, welding processes, destructive and nondestructive test methods. Includes API 1104 and ASME Sections V and IX.
Lecture Hrs = 3, Lab Hrs = 0
Pre/Corequisite: READ 300 or equivalent

WLDG 1337
Introduction to Metallurgy
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 and ductility.
Lecture Hrs = 3, Lab Hrs = 0
Pre/Corequisite: READ 300 or equivalent

WLDG 1428
Introduction to Shielded Metal Arc Welding (SMAW)
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
Pre/Corequisite: READ 300 or equivalent

WLDG 1430
Introduction to Gas Metal Arc (GMAW) Welding
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
Pre/Corequisite: READ 300 or equivalent

WLDG 1434
Introduction to Gas Tungsten Arc (GTAW) Welding
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
Pre/Corequisite: READ 300 or equivalent

WLDG 1435
Introduction to Pipe Welding
An introduction to welding of pipe using the shielded metal arc welding process (SMAW), including electrode selection, equipment setup, and safe shop practices. Emphasis on weld positions 1G and 2G using various electrodes.
Lecture Hrs = 3, Lab Hrs = 3
Prerequisite: WLDG 2443
Pre/Corequisite: READ 300 or equivalent

WLDG 2443
Advanced Shielded Metal Arc Welding (SMAW)
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
Prerequisite: WLDG 1428
Pre/Corequisite: READ 300 or equivalent

WLDG 2451
Advanced Gas Tungsten Arc Welding (GTAW)
Advanced topics in GTAW welding, including welding in various positions and directions.
Lecture Hrs = 3, Lab Hrs = 3
Prerequisite: WLDG 1434
Pre/Corequisite: READ 300 or equivalent

WLDG 2453
Advanced Pipe Welding
Advanced topics involving welding of pipe using the shielded metal arc welding (SMAW) process. Topics include electrode selection, equipment setup, and safe shop practices. Emphasis on weld positions 5G and 6G using various electrodes.
Lecture Hrs = 3, Lab Hrs = 3
Prerequisite: WLDG 1435
Pre/Corequisite: READ 300 or equivalent