

# Course Descriptions

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Culinary Arts Student



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# Course Descriptions

## Accounting

*Norman Bradshaw, Department Chairperson,  
Tom Branton*

### ACCT 2301

#### Financial Accounting (3 credits)

This course concentrates on accounting for merchandise operations, proprietorships, partnerships, negotiable instruments, specialized books of original entry, and the voucher system, including emphasis on the financial aspects of accounting. (3 lecture and 1 laboratory hours per week). [CB5203015104]

### ACCT 2302

#### Managerial Accounting (3 credits)

This course provides a study of partnerships corporations, cost accounting, assets, theory, and interpretation of financial statements, with special emphasis on the managerial aspects of accounting. (3 lecture and 1 laboratory hours per week). Prerequisite: ACCT2301. [CB5203015104]

## Agriculture

*Dwight Rhodes, Department Chairperson*

### AGRI 1307

#### Fundamentals of Crop Production (3 credits)

This course presents a scientific approach to commonly grown field crops by exploring their importance, value, use, characteristics, classification, distribution, climatic and soil requirements, production, storage, improvement, and seed technology. (3 lecture hours per week). [CB01.1102.5101]

### AGRI 1319

#### Animal Husbandry (3 credits)

This basic course acquaints the student with the production systems, basic facility requirements, and markets for various types and breeds of livestock. The course also presents basic phases of feeding, breeding, disease control, and production of livestock. (3 lecture hours per week). [CB01.0901.5101]

## American Sign Language

*Amalia D. Parra, Department Chairperson*

### SGNL 1301

#### Beginning American Sign Language I (3 credits)

Introduction to American Sign Language covering finger spelling, vocabulary, and basic sentence structure in preparing individuals to interpret oral speech for the hearing impaired. (3 lecture and 1 lab hour per week) [CB16.1603.5113]

### SGNL 1302

#### Beginning American Sign Language II (3 credits)

Introduction to American Sign Language covering finger spelling, vocabulary, and basic sentence structure in preparing individuals to interpret oral speech for the hearing impaired. Prerequisite: SGNL1301 with minimum grade of C or Departmental approval. (3 lecture and 1 lab hour per week) [CB 16.1603.5113]

### SGNL 2301

#### Intermediate American Sign Language I (3 credits)

Review and application of conversational skills in American Sign Language; interpreting from signing to voice as well as from voice to signing. Introduction to American Sign Language literature and folklore. Prerequisite: SGNL 1302 with minimum grade of C or Departmental approval. (3 lecture and 1 lab hour per week) [CB 16.1603.5213]

### SGNL 2302

#### Intermediate American Sign Language II (3 credits)

Review and application of conversational skills in American Sign Language; interpreting from signing to voice as well as from voice to signing. Introduction to American Sign Language literature and folklore. Prerequisite: SGNL 2301 with minimum grade of C or Departmental approval. (3 lecture and 1 lab hour per week) [CB 16.1603.5213]

## Anthropology

*Traci Elliott, Department Chairperson*

### ANTH 2301

#### Physical Anthropology (3 credits)

This course provides an overview of human origins and biocultural adaptations. It also introduces methods and theory in the excavation and interpretation of material remains of past cultures. (3 lecture hours per week) Prerequisites: READ 0310 and ENGL 0310. [CB45.0301.5125]

### ANTH 2302

#### Introduction of Archeology (3 credits)

This course is a study of human history which describes the major cultural developments in humanity's past and explores the methods used by archeologists to retrieve, process and analyze material remains of past cultures. (3 lecture hours per week) Prerequisites: READ 0310 and ENGL 0310. [CB45.0301.5125]

### ANTH 2346

#### General Anthropology (3 credits)

Following principles of physical and cultural anthropology, this course analyzes the cultures of prehistoric and existing preliterate people and the impact of modern western culture (3 lecture hours per week) Prerequisites: READ 0310 and ENGL 0310. [CB45.0201.5125]

### ANTH 2351

#### Cultural Anthropology (3 credits)

This course provides a survey of cultures around the world in order to explain the key concepts, methods and theories used in the study of cultural diversity, social institutions, linguistics, and cultural change among world peoples. (3 lecture hours per week) Prerequisites: READ 0310 and ENGL 0310. [CB45.0201.5325]

## Arts

*Dennis LaValley, Department Chairperson*

### ARTS 1301

#### Art Appreciation (3 credits)

This general course in Art Appreciation is open to all college students. It includes critical evaluation of selected works of painting, sculpture, architecture, and industrial design and a study of the principles of design from a layman's standpoint and of art in relation to everyday life. (3 lecture hours per week). Prerequisites: ENGL 0310 and READ 0310. [CB50.0703.5126]

### ARTS 1303

#### Art History I (3 credits)

This course includes a critical and analytical study of the great historical works of art in architecture, sculpture, painting, and the minor arts from pre-historic times through the medieval period. (3 lecture hours per week). Prerequisites: ENGL 0310 and READ 0310. [CB50.0703.5226]

### ARTS 1304

#### Art History II (3 credits)

This course provides a critical and analytical study of the great historical works of art in architecture, sculpture, painting, and the minor arts from the medieval period to contemporary art. (3 lecture hours per week). Prerequisites: ENGL 0310 and READ 0310. [CB50.0703.5226]

**ARTS 1311****Design I  
(3 credits)**

This course familiarizes the student with the basic elements and fundamentals of two-dimensional design and their application to works of art. In addition to scheduled class hours, students should arrange three additional hours per week to work on art projects. (3 lecture & 3 lab hours per week). [CB50.0401.5326]

**ARTS 1312****Design II  
(3 credits)**

This course provides the student with a knowledge of the application of design principles to three-dimensional work. In addition to scheduled class hours, students should arrange three additional hours per week to work on art projects. (3 lecture & 3 lab hours per week). [CB50.0401.5326]

**ARTS 1316****Drawing I  
(3 credits)**

This beginning course investigates a variety of media, techniques, and subjects and explores descriptive and perceptual possibilities of drawing. In addition to scheduled class hours, students should arrange three additional hours per week to work on art projects. (3 lecture & 3 lab hours per week) [CB50.0705.5226]

**ARTS 1317****Drawing II  
(3 credits)**

This course is an expansion of the concepts presented in Drawing I, and it stresses the expressive and conceptual aspects of drawing in various media. In addition to scheduled class hours, students should arrange three additional hours per week to work on art projects. (3 lecture & 3 lab hours per week). Prerequisite: ARTS 1316 [CB50.0705.5226]

**ARTS 2316****Painting I  
(3 credits)**

This course explores the potentials of various painting media with stress on color and composition. In addition to scheduled class hours, students should arrange three additional hours per week to work on art projects. (3 lecture & 3 lab hours per week). [CB50.0708.5226]

**ARTS 2317****Painting II  
(3 credits)**

This course is an expansion of the concepts presented in Painting I with unrestricted subject matter. In addition to scheduled class hours, students should arrange three additional hours per week to paint. (3 lecture & 3 lab hours per week). Prerequisite: ARTS 2316. [CB50.0708.5226]

**ARTS 2326****Sculpture I  
(3 credits)**

This course provides students with experience in sculpture in clay, wood, and found object materials. Art majors are expected to take a sculpture course. Students should arrange three additional hours per week to work in sculpture. (3 lecture & 3 lab hours per week) [CB50.0709.5126]

**ARTS 2327****Sculpture II  
(3 credits)**

This course provides students with experience in sculpture in clay, wood, and found object materials. It is an expansion of the concepts presented in Sculpture I. Students should arrange three additional hours per week to work in sculpture. Prerequisite: ARTS 2326 (3 lecture & 3 lab hours per week) [CB50.0709.5126]

**ARTS 2333****Printmaking I  
(3 credits)**

This course introduces students to printmaking techniques and principles. The student will explore woodcut, etching, dry point, monoprint and linocut methods. In addition to scheduled class hours, students should arrange three additional hours per week to work on projects. (3 lecture & 3 lab hours per week) [CB50.0710.5126]

**ARTS 2334****Printmaking II  
(3 credits)**

This course is an extension of Printmaking I with the inclusion of serigraphy and lithography. In addition to scheduled class hours, students should arrange three additional hours per week to work on projects. Prerequisite: ARTS 2333 (3 lecture & 3 lab hours per week) [CB50.0710.5126]

**ARTS 2341****Jewelry & Arts Metal I  
(3 credits)**

This course explores various methods of metal fabrication with an emphasis on jewelry making. The principles of two and three dimensional design are given careful consideration. The history and contemporary trends of art metals are examined. (3 lecture & 3 lab hours per week) [CB50.0713.5126]

**ARTS 2342****Jewelry & Arts Metal II  
(3 credits)**

This course is a continuation of Art Metals I. It explores metal fabrication, jewelry making, history and contemporary trends. Prerequisite: ARTS 2341. (3 lecture & 3 lab hours per week). [CB50.0713.5126]

**ARTS 2346****Ceramics I  
(3 credits)**

This course includes an introduction to hand building processes and glaze application. Students learn to use the potter's wheel with emphasis on individual expression. In addition to scheduled class hours, students should arrange three additional hours per week to work on art projects. (3 lecture & 3 lab hours per week) [CB50.0711.5126]

**ARTS 2347****Ceramics II  
(3 credits)**

This course includes the combining of hand building and wheel thrown objects. Students learn the techniques of section pottery throwing. In addition to glaze application and kiln firing, Raku pottery will be introduced. Students should arrange at least three additional hours per week. (3 lecture & 3 lab hours per week) Prerequisite: ARTS 2346. [CB50.0711.5126]

**ARTS 2348****Digital Art I  
(3 credits)**

This course includes an introduction to the processes and techniques of advertising art. In addition to scheduled class hours, students should arrange three additional hours per week to work on art projects. (3 lecture & 3 lab hours per week) [CB50.0402.5226]

**ARTS 2349****Digital Art II  
(3 credits)**

This course is an advanced study of advertising art and production. In addition to scheduled class hours, students should arrange three additional hours per week to work on art projects. Prerequisite: ARTS 2348 (3 lecture & 3 lab hours per week) [CB50.0402.5226]

**ARTS 2356****Photography I  
(3 credits)**

This course introduces the student to the fundamental elements of black & white techniques, knowledge of chemistry, and presentation skills with an emphasis on design, history and contemporary trends as a means of developing an understanding of photographic aesthetics. (3 lecture & 3 lab hours per week) [CB50.0605.5126]

**ARTS 2357****Photography II  
(3 credits)**

This course builds upon the techniques and concepts presented in Photography I and focuses on continued development of printing and developing skills with emphasis placed on the development individual expression. (3 lecture & 3 lab hours per week) Prerequisite: ARTS 2356 [CB50.0605.5226]

**ARTS 2366****Watercolor I  
(3 credits)**

Students explore the watercolor medium as a means of artistic expression through interpretation of still life, landscape, and figure subjects. In addition to scheduled class hours, students should arrange three additional hours per week to work on art projects. (3 lecture & 3 lab hours per week) [CB50.0708.5326]

**ARTS 2367****Watercolor II  
(3 credits)**

This course presents a deeper exploration in the field of the watercolor medium as a means of artistic expression through interpretation of still life, landscape, figure, and non-objective approaches. In addition to scheduled class hours, students should arrange three additional hours per week to work on art projects. Prerequisite: ARTS 2366. (3 lecture & 3 lab hours per week) [CB50.0708.5326]

## Astronomy

*Dora Devery, Department Chairperson  
Joseph Mills*

### ASTR 1403

#### Planetary Astronomy (4 credits)

Introductory planetary astronomy course which includes basic material on the history of astronomy, physics of planetary motion, the nature of light, operation of telescopes, formation of solar system, terrestrial planets, Jovian planets, Kuiper Belt objects, comets, and asteroids. Lab includes observing the stars, nebulae, galaxies, planets, and a variety of exercises in observational astronomy. (3 lecture and 3 lab hours per week) [CB40.0201.5103]

### ASTR 1404

#### Stellar & Galactic Astronomy (4 credits)

An introductory course that will concentrate on the origin, life and fate of the stars, star clusters, galaxies, and cosmology. An appropriate laboratory program will include lab experiments, telescope observations, field trips, and Internet research. This is a course for non-science majors who need natural science credit or anyone interested in the study of the universe. (3 lecture and 3 lab hours per week) [CB40.0201.5203]

## Biology

*Dwight Rhodes, Department Chairperson  
Jerrod Butcher, John Matula, Tommy Dan Morgan*

### BIOL 1308

#### Contemporary Biology I (3 credits)

This course covers fundamental characteristics of living matter from the molecular level to the ecological community. The course stresses basic biological principles relevant to animals. (3 lecture hours per week). Prerequisite: READ 0310. [CB26.0101.5103]

### BIOL 1309

#### Contemporary Biology II (3 credits)

This course covers fundamental characteristics of living matter from the molecular level to the ecological community. This course stresses basic biological principles relevant to plants. (3 lecture hours per week). Prerequisite: READ 0310. [CB26.0101.5103]

### BIOL 1406

#### General Biology I (4 credits)

An introductory survey of contemporary biology. Topics emphasized will include the chemical basis of life, structure and function of cells, energy transformations, and molecular biology and genetics. (3 lecture and 3 laboratory hours per week). Prerequisite: READ 0310. [CB26.0101.5103]

### BIOL 1407

#### General Biology II (4 credits)

An introductory survey of current biological concepts. Emphasis will be placed on topics which include evolution, biological diversity, ecology, and comparative structure and function of organisms. (3 lecture and 3 laboratory hours per week). Prerequisite: READ 0310. [CB26.0101.5103]

### BIOL 2306

#### Environmental Conservation (3 credits)

This course includes a study of the management of natural resources, the problems caused by population and pollution, the balance of nature, and man's importance in the environment. (3 lecture hours per week). Prerequisite: READ 0310 [CB03.0103.5101]

### BIOL 2401

#### Anatomy and Physiology I (4 credits)

This course includes a study of the structure and function of organ system of the human body. (3 lecture and 3 laboratory hours per week). Prerequisite: READ 0310. [CB26.0707.5103]

### BIOL 2402

#### Anatomy and Physiology II (4 credits)

This course continues the study of the structure and function of organ system of the human body. (3 lecture and 3 laboratory hours per week). Prerequisite: BIOL 2401. [CB26.0707.5103]

### BIOL 2420

#### Basic Microbiology (4 credits)

This one-semester course in microbiology stresses the principles and applications of microbial activity, with emphasis given to the bacterial types. This course stresses the role of micro-organisms in disease, ecology, sanitation, industry, and public health as well as considering sterilization techniques, pure culture techniques, and other aspects of microbial control. Basic Microbiology is recommended for students in biology, pre-med, pre-dental, nursing, and related medical fields. (3 lecture and 3 laboratory hours per week). Prerequisites: Either BIOL 1406 or BIOL 1407, or BIOL 2401, or BIOL 2402. [CB26.0503.5103]

## Business Administration

*Norman Bradshaw, Department Chairperson*

### BUSI 1301

#### Introduction to Business (3 credits)

An overview of the American system of free enterprise, this course concentrates on business and its environment, organization and management of the enterprise, management of human resources, production, marketing, and finance. Primary emphasis is placed on the way American businesses work, what they can do well, and what they do poorly. (3 lecture hours per week). [CB52.0101.5104]

### BUSI 1307

#### Personal Finance (3 credits)

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. (3 lecture hours per week). [CB 19.0401.5109]

### BUSI 2301

#### Business Law (3 credits)

An exploration of the role of law in business and society, including government regulation of business, legal reasoning, business organizations, anti-trust and employment. (3 lecture hours per week). [CB22.0101.5124]

## Chemistry

*Dora Devery, Department Chairperson  
Betty Graef, Donna Payne*

### CHEM 1405

#### Introductory Chemistry I (4 credits)

Topics covered in this course include atomic-molecular theory, valence, oxidation numbers, formulae, chemical equations, gas laws, and solutions. (3 lecture and 3 laboratory hours per week). Prerequisite: READ 0310. [CB40.0501.5103]

### CHEM 1407

#### Introductory Chemistry II (4 credits)

This course surveys organic and biochemistry, and it may include polymer chemistry and heterocyclic. (3 lecture and 3 laboratory hours per week). Prerequisite: CHEM 1405. [CB40.0501.5103]

### CHEM 1411

#### General Chemistry and Analysis I (4 credits)

The topics presented in this course include atomic structure, the periodic classification, the gas laws, reactions involving oxygen and hydrogen, solutions of electrolytes, ionization, and acids, bases, and salts. (3 lecture and 4 laboratory hours per week). Prerequisites: READ 0310 and MATH 0310. [CB40.0501.5203]

### CHEM 1412

#### General Chemistry and Analysis II (4 credits)

The topics presented in this course include thermodynamics, kinetics, properties of solutions, equilibria and electrochemistry. The student is introduced to computer and microscale techniques in laboratory investigations. Prerequisite: CHEM 1411 and MATH 1314. (3 lecture and 4 lab hours per week) [CB40.0501.5203]

**CHEM 2423**  
**Organic Chemistry I**  
**(4 credits)**

This course covers general principles and theories of elementary organic chemistry, with special emphasis on characteristics, structures, preparation, reactions, and nomenclature of hydrocarbons, alkyl halides, alcohols, and ethers. The student is introduced to micro-scale laboratory techniques. (3 lecture and 4 laboratory hours per week). Prerequisite: CHEM 1412. [CB40.0504.5203]

**CHEM 2425**  
**Organic Chemistry II**  
**(4 credits)**

This course covers general principles and theories of elementary organic chemistry, with special emphasis on characteristics, structures, preparation, reactions, and nomenclature of aldehydes, ketones, carboxylic acids, and amines. This course also covers stereochemistry and some elementary concepts in biochemistry. Microscale laboratory techniques are utilized. (3 lecture and 4 laboratory hours per week). Prerequisite: CHEM 2423. [CB40.0504.5203]

## Child Development / Early Childhood

*Jeanine M. Wilburn, Department Chairperson*

**CDEC 1313**  
**Curriculum Resources for Early Childhood Programs**  
**(3 credits)**

A study of the fundamentals of curriculum design and implementation in developmentally appropriate programs for children. The student will define developmentally appropriate practices; describe the process of child-centered curriculum development; and develop guidelines for creating developmentally appropriate indoor and outdoor learning environments. The student will apply an understanding of teacher roles in early childhood classrooms; prepare a developmentally appropriate schedule including routines and transitions; and select, plan, implement, and evaluate developmentally appropriate learning experiences for children. (3 lecture hours per week). Corequisite: READ 0309. [CIP19.0709]

**CDEC 1317**  
**Child Development Associate Training I**  
**(3 credits)**

Based on the requirements for the Child Development Associate National Credential (CDA). Topics on CDA overview, general observation skills, and child growth and development overview. The four functional areas of study are creative, cognitive, physical, and communication. The student will identify methods to advance physical and intellectual competence; describe the CDA process, develop general observation skills and summarize basic child growth and development; utilize skills in writing, speaking, teamwork, time management, creative thinking, and problem solving. (3 lecture and 2 laboratory hours per week). Corequisite: READ 0309. [CIP19.0709]

**CDEC 1319**  
**Child Guidance**  
**(3 credits)**

An exploration of guidance strategies for promoting prosocial behaviors with individual and groups of children. Emphasis on positive guidance principles and techniques, family involvement and cultural influences. Practical application through direct participation with children. The student will summarize theories related to child guidance; explain how appropriate guidance promotes autonomy, self-discipline and life-long social skills in children; recognize the importance of families and culture in guiding children; and promote development of positive self-concept and prosocial behaviors in children. The student will apply appropriate guidance techniques to specific situations relating to children's behaviors and demonstrate skills in helping children resolve conflicts. (3 lecture and 1 laboratory hour per week). Corequisite: READ 0309. [CIP19.0709]

**CDEC 1321**  
**The Infant and Toddler**  
**(3 credits)**

A study of appropriate infant and toddler programs (birth to age 3), including an overview of development, quality caregiving routines, appropriate environments, materials and activities, and teaching/guidance techniques. The student will summarize prenatal development and the birth process; discuss theories of development as they apply to infants and toddlers; outline growth and development of children from birth to age 3; analyze components of quality infant/toddler caregiving and elements of appropriate indoor and outdoor environments. The student will provide developmentally appropriate materials and activities and use developmentally appropriate teaching/guidance techniques. (3 lecture hours per week). Corequisite: READ 0309. [CIP19.0709]

**CDEC 1356**  
**Emergent Literacy for Early Childhood**  
**(3 credits)**

An exploration of principles, methods, and materials for teaching young children language and literacy through a play-based integrated curriculum. The student will define literacy and emergent literacy; analyze various theories of language development; and describe the teacher's role in promoting emergent literacy. The student will create literacy environments for children; and select and share appropriate literature with children. (2 lecture and 3 laboratory hours per week). Corequisite: READ 0309. [CIP19.0706]

**CDEC 1358**  
**Creative Arts for Early Childhood**  
**(3 credits)**

An exploration of principles, methods, and materials for teaching children music, movement, visual arts, and dramatic play through process-oriented experiences to support divergent thinking. The student will define the creative process; describe the role of play in a child's growth and development and developmental sequences for creative arts; analyze teacher roles in enhancing creativity; describe concepts taught through the creative arts and components of creative environments. The student will plan, implement, and assess child-

centered activities for music, movement, visual arts, and dramatic play. (2 lecture and 3 laboratory hours per week). Corequisite: READ 0309. [CIP19.0709]

**CDEC 1359**  
**Children With Special Needs**  
**(3 credits)**

A survey of information regarding children with special needs including possible causes and characteristics of exceptionalities, intervention strategies, available resources, referral processes, the advocacy role, and legislative issues. The student will summarize causes, incidences and characteristics of exceptionalities related to the domains of development; discuss current terminology and practices for intervention strategies; identify appropriate community resources and referrals for individual children and families; review legislation and legal mandates and their impact on practices and environments; explain the role of advocacy for children with special needs and their families. The student will use various types of materials and resources, including current technology, to support learning in all domains for all children. (3 lecture hours per week). Corequisite: READ 0309. [CIP19.0709]

**CDEC 1384**  
**Cooperative Ed. In Child Development I**  
**(3 credits)**

Career-related activities encountered in the student's area of specialization offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component. The student will, as outlined in the learning plan, apply the theory, concepts, and skills involving specialized materials, tools, equipment, procedures, regulations, laws, and interactions within and among political, economic, environmental, social, and legal systems associated with the occupation and the business/industry and will demonstrate legal and ethical behavior, safety practices, interpersonal and teamwork skills, and appropriate written and verbal communication skills using the terminology of the occupation and the business/industry. (1 lecture and 20 laboratory hours per week). Corequisite: READ 0309 and 6 hours of CDEC [CIP19.0706]

**CDEC 2307**  
**Math and Science for Early Childhood**  
**(3 credits)**

An exploration of principles, methods, and materials for teaching children math and science concepts through discovery and play. The student will relate the sequence of cognitive development to the acquisition of math and science concepts and describe the scientific process and its application to the early childhood indoor and outdoor learning environments. The student will develop strategies which promote thinking and problem-solving skills in children; utilize observation and assessment as a basis for planning discovery experiences for the individual child; and create, evaluate, and/or select developmentally appropriate materials, equipment and environments to support the attainment of math and science concepts. (2 lecture and 3 laboratory hours per week). Corequisite: READ 0309. [CIP19.0709]

**CDEC 2322****Child Development Associate Training II  
(3 credits)**

A continuation of the study of the requirements for the Child Development Associate National Credential (CDA). The six functional areas of study include safe, healthy, learning environment, self, social, and guidance. The student will explain methods to establish and maintain a safe, healthy learning environment, describe ways to support social and emotional development, and describe techniques used to provide positive guidance. The student will utilize skills in writing, speaking, problem solving, time management, and record keeping. (1 lecture and 5 laboratory hours per week). Prerequisite: READ 0309. [CIP19.0709]

**CDEC 2324****Child Development Associate Training III  
(3 credits)**

A continuation of the study of the requirements for the Child Development Associate National Credential (CDA). Three of the 13 functional areas of study include family, program management, and professionalism. The student will describe methods to establish positive and productive relationships with families; explain methods to ensure a well-run, purposeful program responsive to participant needs; and identify how to maintain a commitment to professionalism; utilize skills in writing, speaking, problem-solving, time management, and record keeping. (1 lecture and 5 laboratory hours per week). Prerequisite: READ 0309. [CIP19.0709]

**CDEC 2384****Cooperative Ed. in Child Development II  
(3 credits)**

Career-related activities encountered in the student's area of specialization offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component. The student will, as outlined in the learning plan, apply the theory, concepts, and skills involving specialized materials, tools, equipment, procedures, regulations, laws, and interactions within and among political, economic, environmental, social, and legal systems associated with the occupation and the business/industry and will demonstrate legal and ethical behavior, safety practices, interpersonal and teamwork skills, and appropriate written and verbal communication skills using the terminology of the occupation and the business/industry. (1 lecture and 20 laboratory hours per week). Prerequisite: READ 0309 and ENGL 0309. [CIP19.0706]

**CDEC 2426****Administration of Programs for Children I  
(4 credits)**

A practical application of management procedures for early child care education programs, including a study of planning, operating, supervising, and evaluating programs. Topics on philosophy, types of programs, policies, fiscal management, regulations, staffing, evaluation, and communication. The student will analyze the planning functions; evaluate the operational functions and interpret

the supervisory functions of an administrator. The student will summarize the evaluation of functions in an early care and education program and explore methods of effective communication and utilize skills in speaking, writing, computation, and computer utilization. (3 lecture and 2 laboratory hours per week). Prerequisite: READ 0309 and ENGL 0309. [CIP19.0708]

**CDEC 2428****Administration of Programs for Children II  
(4 credits)**

An in-depth study of the skills and techniques in managing early care and education programs, including legal and ethical issues, personnel management, team building, leadership, conflict resolution, stress management, advocacy, professionalism, fiscal analysis and planning parent education/partnerships, and technical applications in programs. The student will discuss codes of conduct; describe communication skills needed in effectively administering an early care and education program; discuss the importance of parent education/partnerships in early care and education programs; explain the administrator's role in advocacy; describe personnel management skills necessary to administer programs; explain legal issues which impact programs; evaluate fiscal responsibilities of an administrator; and examine current technology and issues in early care and education administration. The student will utilize skills in speaking, writing, computation, and computer utilization. (3 lecture and 2 laboratory hours per week). Prerequisite: READ 0309 and ENGL 0309 [CIP19.0708]

**EDUC 1301****Introduction to the Teaching Profession  
(3 credits)**

An enriched integrated pre-service course and content experience that provides active recruitment and institutional support of students interested in a teaching career, especially in high need fields; provides students with opportunities to participate in early field observations at all levels of P-12 schools with varied and diverse student populations; provides students with support from college and school faculty, preferably in small cohort groups, for the purpose of introduction to and analysis of the culture of schooling and classrooms; and includes 16 hours of field-experience activities in P-12 schools. (3 lecture and 1 lab hour per week) Prerequisite: ENGL 0310, READ 0310. [CB1301015109]

**EDUC 2301****Special Populations  
(3 credits)**

An enriched integrated pre-service course and content experience that provides an overview of schooling and classrooms from the perspectives of language, gender, socioeconomic status, ethnic, and academic diversity and equity with an emphasis on factors that facilitate learning; provides students with opportunities to participate in early field observations of P-12 special populations; and includes 16 hours of field-based activities, which must be with special populations in P-12 schools. (3 lecture hours per week). Prerequisite: ENGL 0310, READ 0310. [CB13.1001.5109]

**TECA 1303****Family, School and Community  
(3 credits)**

A study of the child, family, community, and schools, including parent education and education and involvement, family and community lifestyles, child abuse, and current family life issues. Requires students to participate in field experiences of 16 hours with children from infancy through age 12 in a variety of settings with varied and diverse populations. (3 lecture and 1 field experience hour per week). Prerequisite: ENGL 0310, READ 0310. [CB1907015109]

**TECA 1311****Educating Young Children  
(3 credits)**

An introduction to the education of the young child, including developmentally appropriate practices and programs, theoretical and historical perspectives, ethical and professional responsibilities, and current issues. Requires students to participate in field experiences of 16 hours with children from infancy through age 12 in a variety of settings with varied and diverse populations. (3 lecture and 1 field experience hour per week). Prerequisite: ENGL 0310, READ 0310. [CB1907085109]

**TECA 1318****Wellness of the Young Child  
(3 credits)**

A study of the factors that impact the well-being of the young child including healthy behavior, food, nutrition, fitness, and safety practices. Focus on local and national standards and legal implications of relevant policies and regulations. Requires students to participate in field experiences of 16 hours with children from infancy through age 12 in a variety of settings with varied and diverse populations. (3 lecture and 1 field experience hour per week). Prerequisite: ENGL 0310, READ 0310. [CB1907085209]

**TECA 1354****Child Growth and Development  
(3 credits)**

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. The student will summarize principles of growth and development and developmental processes on early childhood practices and types and techniques of observation; and explain the importance of play. The student will demonstrate skills in practical application of developmental principles and theories, observation techniques and recognition of growth and developmental patterns. (3 lecture hours per week). Corequisite: ENGL 0310, READ 0310. [CB1907065209]

## Chinese

Amalia D. Parra, Department Chairperson

### CHIN 1411 Beginning Chinese I (4 credits)

Fundamental skills in listening comprehension, speaking, reading, and writing. Includes basic vocabulary, grammatical structures, and culture. (3 lecture & 2 lab hours per week) [CB 16.0301.5113]

### CHIN 1412 Beginning Chinese II (4 credits)

Fundamental skills in listening comprehension, speaking, reading, and writing. Includes basic vocabulary, grammatical structures, and culture. (3 lecture & 2 lab hours per week) Prerequisite: CHIN 1411 [CB 16.0301.5113]

### CHIN 2311 Intermediate Chinese I (3 credits)

Review and application of skills in listening comprehension, speaking, reading, and writing. Emphasizes conversation, vocabulary acquisition, reading, composition, and culture. (3 lecture & 1 lab hour per week) Prerequisite: CHIN 1412 [CB 16.0301.5213]

### CHIN 2312 Intermediate Chinese II (3 credits)

Review and application of skills in listening comprehension, speaking, reading, and writing. Emphasizes conversation, vocabulary acquisition, reading, composition, and culture. (3 lecture & 1 lab hour per week) Prerequisite: CHIN 2311 [CB 16.0301.5213]

## Communications

William C. Lewis, Department Chairperson  
Mark Moss, Jason Nichols

### COMM 1307 Introduction to Mass Communication (3 credits)

Study of the media by which entertainment and information messages are delivered. Includes an overview of the traditional mass media: their functions, structures, supports, and influences. (3 lecture hours per week). [CB09.0102.51 06]

### COMM 1318 Photography I 3 credits (Cross-listed as ARTS 2356)

Introduction to the basics of photography. Includes camera operation, techniques, knowledge of chemistry, and presentation skills. Emphasis on design, history, and contemporary trends as a means of developing an understanding of photographic aesthetics. Photographic equipment provided. (2 lecture and 4 lab hours per week) [CIP 50.0605.5126]

### COMM 1336 Television Production I (3 credits)

Practical experience in the operation of television studio and control room equipment, including both pre- and post-production needs. Includes live and taped studio program content, studio camera operation, and television audio. Emphasizes television producing and directing utilizing underlying principles of video technology. (2 lecture and 4 lab hours per week). [CB10.0202.5206]

### COMM 1337 Television Production II (3 credits)

This course continues practical experience in the operation of television studio and field equipment, including both pre- and post-production needs. Topics include field camera setup and operation, field audio, television directing, and in-camera or basic continuity editing with an emphasis on underlying principles of video technology. (2 lecture and 4 lab hours per week). [CB10.0202.52 06]

### COMM 2303 Audio/Radio Production (3 credits)

Concepts and techniques of sound production, including the coordinating and directing processes. Hands-on experience with equipment, sound sources, and direction of talent. (2 lecture and 2 lab hours per week) [CB10.0202.51 06]

### COMM 2311 News Gathering & Writing I (3 credits)

Fundamentals of writing news for the mass media. Includes instruction in methods and techniques for gathering, processing, and delivering news in a professional manner. (2 lecture and 4 lab hours per week) [CB09.0401.57 06]

### COMM 2326 Practicum in Electronic Media 3 credits

Lecture and laboratory instruction and participation. (1 lecture and 5 lab hours per week) Prerequisite: COMM 2311. [CIP 09.0701.5306]

### COMM 2327 Introduction to Advertising (3 credits)

Fundamentals of advertising including marketing theory and strategy, copy writing, design, and selection of media. (3 lecture hours per week) [CIP 09.0903.51 06]

### COMM 2331 Radio/Television Announcing (3 credits)

Principles of announcing: study of voice, diction, pronunciation, and delivery. Experience in various types of announcing. Preparation for opportunities in announcing employment in news, sports, commercial, voice talent, disk jockey, radio and TV. (3 lecture hours per week). [CB 09.0701.54 06]

### COMM 2332 Radio/Television News (3 credits)

Preparation and analysis of news styles for the electronic media. (2 lecture and 4 lab hours per week) [CB09.0402.52 06]

### COMM 2366 Introduction to Film (3 credits)

Emphasis on the analysis of the visual and aural aspects of selected motion pictures, dramatic aspects of narrative films, and historical growth and sociological effect of film as an art. (2 lecture and 2 lab hours per week). [CB50.0602.51 26]

### RTVB 1250 Radio Experience I (2 Credits)

Laboratory experience in radio operation and announcing by broadcasting on a radio station. (1 lecture & 2 lab hours per week) [CIP 09.0701]

### RTVB 1301 Broadcast News Writing (3 credits)

Instruction in the writing and organization of news copy. Topics include proper style and format used for broadcast news scripts, organization of newscasts, use of computerized news editing systems. (2 lecture and 4 lab hours per week). [CIP09.0701]

### RTVB 1309 Audio/Radio Production I (3 credits)

Concepts and techniques of sound production including basic recording, mixing, and editing techniques. (2 lecture and 2 laboratory hours per week) [CIP09.0701]

### RTVB 1321 TV Field Production (3 credits)

Pre-production, production, and post-production process involved in field television production. Topics include field camera setup and operation, field audio, television directing, and in-camera or basic continuity editing with an emphasis on underlying principles of video technology. (2 lecture and 4 laboratory hours per week) [CIP09.0701]

### RTVB 1325 TV Studio Production (3 credits)

Basic television production. Includes live and taped studio program content, studio camera operation, and television audio. Emphasizes television producing and directing utilizing underlying principles of video technology. (2 lecture and 4 laboratory hours per week) [CIP09.0701]

### RTVB 1329 Scriptwriting (3 credits)

Writing of commercials, public service announcements, promos, news documentaries, and other broadcast and film materials. Emphasis on

the format and style of each type of writing and development of a professional writing style. (2 lecture and 4 laboratory hours per week) [CIP09.0701]

#### RTVB 1355

##### Radio and Television Announcing (3 credits)

Radio and TV announcing skills such as voice quality, articulation, enunciation, and pronunciation. Preparation for opportunities in announcing employment in news, sports, commercial, voice talent, and disk jockey and radio and TV. (2 lecture and 4 laboratory hours per week) [CIP09.0701]

#### RTVB 1380,1381, 2380, 2381

##### Cooperative Education – Radio and Television (3 credits)

Radio and TV announcing skills such as voice quality, articulation, enunciation, and pronunciation. Preparation for opportunities in announcing employment in news, sports, commercial, voice talent, and disk jockey and radio and TV. (1 lecture and 20 laboratory hours per week) Prerequisite: RTVB 1301 or COMM 2311. [CIP09.0701]

#### RTVB 1391

##### Special Topics in Radio and Television Broadcasting (3 credits)

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. (2 lecture and 4 laboratory hours per week) [CIP09.0701]

#### RTVB 2331

##### Audio/Radio Production III (3 credits)

Advanced concepts in audio/radio recording and editing, including digital editing, sound processing systems, and multitrack mix down recording techniques. (2 lecture and 4 laboratory hours per week) [CIP09.0701]

#### RTVB 2337

##### TV Production Workshop I (3 credits)

Application and design of video productions in location or studio shooting environments with real deadlines and quality control restrictions. Students will produce programming for KACC-TV. (2 lecture and 4 laboratory hours per week) [CIP09.0701]

#### RTVB 2340

##### Portfolio Development (3 credits)

Preparation and presentation of a portfolio suitable for employment in the media industry. This course is intended to be taken in the last semester. (1 lecture and 6 laboratory hours per week) Prerequisite: RTVB 1301 or COMM 2311 [CIP 09.0701]

## Computer Information Technology

Thomas Magliolo, Department Chair  
Richard Melvin, Cathy LeBouef

*It is the responsibility of all students taking a computer science internet course(s) to contact their instructor(s) at the beginning of the semester.*

*In the BCIS 1405, internet course, it is necessary for students to use the same textbook and software version that is being used at Alvin Community College Computer Information Technology Department. This allows students to locate correct assignments and examples. Internet students taking a computer science course have access to the computer laboratories when space is available.*

*In internet programming courses, it is recommended that students use the same software that is used at ACC. The student accepts the responsibility of installing the necessary software and creating the necessary files. Internet students taking a computer science programming course have access to the laboratories when space is available.*

#### BCIS 1405

##### Business Computer Applications (4 credits)

This course contains an overview of computer concepts, computer vocabulary, and microcomputer applications. The course requires the use of a microcomputer (3 lecture and 3 laboratory hours per week). Prerequisite: READ 0309. [CB5212025227]

#### BCIS 1420

##### Introductory C Programming (4 credits)

Introduction to business programming techniques. Includes structured programming methods, designing customized software applications, testing documentation, input specification, and report generation. (3 lecture and 3 lab hours per week). Prerequisite: READ 0309 and MATH 0310. [CB5212025227]

#### BCIS 1431

##### Programming in Visual Basic (4 credits)

Introduction to business programming techniques. Includes structured programming methods, designing customized software applications, testing documentation, input specification, and report generation. (3 lecture and 3 lab hours per week). Prerequisite: READ 0309 and MATH 0310. [CB5212025227]

#### BCIS 2431

##### Advanced Programming Visual Basic (4 credits)

Further applications of business programming techniques. Advanced topics may include varied file access techniques, system profiles and security,

control language programming, data validation program design and testing, and other topics not normally covered in an introductory information systems programming course. (3 lecture and 3 lab hours per week). Prerequisites: READ 0309, MATH 1314 and BCIS 1431. [CB5212025227]

#### COSC 1401

##### Microcomputer Applications (4 credits)

This course contains an overview of computer concepts, computer vocabulary, and microcomputer applications. The course requires the use of a microcomputer. (3 lecture and 3 laboratory hours per week). Prerequisite: READ 0309. [CB11.0101.5107]

#### COSC 1415

##### Fundamentals of Programming (4 credits)

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. (3 lecture and 3 laboratory hours per week). Prerequisite: READ 0309 and MATH 0310. [CB5212025227]

#### COSC 1420

##### Computer Programming -- C++ (4 credits)

Emphasis on the fundamentals of structured design with development, testing, implementation, and documentation. Includes language syntax, data, input/output devices, and files. (3 lecture and 3 laboratory hours per week). Prerequisite: BCIS 1405, MATH 0312. Corequisite: MATH 1314 [CB1102015227]

#### COSC 1430

##### Computer Programming - JAVA (4 credits)

Introduction to computer programming in various programming languages. 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. (3 lecture and 3 laboratory hours per week). Prerequisite: MATH 0310 and BCIS 1405 or COSC 1401. [CB1102015227]

#### COSC 1436

##### Programming Fundamentals I (4 credits)

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 may use instructional examples and assignments from various programming languages, including but not limited to C, C++, C#, and/or Java. COSC 1436 or any higher level COSC course will meet the core curriculum and/or Associate in Arts or Associate in Sciences requirement. (3 lecture and 3 laboratory hours per week)[CIP 11.02015507]

**COSC 1437****Programming Fundamentals II  
(4 credits)**

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. This course may use instructional examples and assignments from various programming languages, including but not limited to C, C++, C#, and/or Java. COSC 1437 or any higher level COSC course will meet the core curriculum and/or Associate in Arts or Associate in Sciences requirement.

Prerequisite: COSC 1436 and college-level algebra or higher. (3 lecture and 3 laboratory hours per week) [CIP 11.02015607]

**COSC 2315****Data Structures  
(3 credits)**

This course is an introduction to data structures and algorithm development. Topics include: arrays, records, linked list, stacks, queues, binary trees, sorting, and searching. (3 lecture hours per week). Prerequisite: BCIS 1405 or COSC 1401, and COSC 1420. [CB1102015327]

**COSC 2420****Advanced Computer Programming - C++  
(4 credits)**

Topics include object-oriented programming, dynamic memory allocation, classes, function overloading, inheritance, polymorphism, streams, templates, exception handling. (3 lecture and 3 laboratory hours per week). Prerequisite: READ 0309 and COSC 1420. [CB1102015327]

**COSC 2425****Computer Organization and Machine Language  
(4 credits)**

Basic computer organization; machine cycle, digital representation of data and instructions; assembly language programming, assembler, loader, macros, subroutines, and program linkages. (3 lecture and 3 laboratory hours per week). Prerequisite: READ 0309 and COSC 1420 [CB11.0201.5407]

**COSC 2436****Programming Fundamentals III  
(4 credits)**

Further applications of programming techniques, introducing the fundamental concepts of data structures and algorithms. Topics include recursion, fundamental data structures (including stacks, queues, linked lists, hash tables, trees, and graphs), and algorithmic analysis. This course may use instructional examples and assignments from various programming languages, including but not limited to C, C++, C#, and/or Java. COSC 2436 or any higher level COSC course will meet the core curriculum and/or Associate in Arts or Associate in Sciences requirement. Prerequisite: COSC 1437.(3 lecture and 3 Lab hours per week)

[CIP 11.02015707]

**CPMT 1403****Introduction to Computer Technology  
(4 credits)**

This is a fundamental computer course that provides information on procedures to properly utilize computer hardware and software. The student will become familiarized with the terminology and various acronyms associated with computers and the computer industry. The course also informs the student about the wide variety of career opportunities available in Computer Technology. (3 lecture and 3 laboratory hours per week). [CIP15.0402]

**CPMT 1411****Introduction to Computer Maintenance  
(4 credits)**

This course is an introduction to the various components that make up a microcomputer system. The student will identify and learn the operation of the individual modules and assemble and connect them to create a complete microcomputer system. In addition, the student will also learn the evolution of the microprocessor and microprocessor bus systems. (3 lecture and 3 laboratory hours per week). [CIP47.0104]

**CPMT 1445****Computer Systems Maintenance  
(4 credits)**

Functions of the components within a computer system. Development of skills in the use of test equipment and maintenance aids. (2 lecture and 6 lab hours per week) [CIP: 47.0104]

**CPMT 1447****Computer Systems Peripherals  
(4 credits)**

Theory and practices involved in computer peripherals, operation and maintenance techniques, and specialized test equipment. (2 lecture plus 6 lab hours per week) [CIP: 47.0104]

**CPMT 2445****Computer System Troubleshooting  
(4 credits)**

This course teaches the principles and practices involved in troubleshooting hardware and software problems in computer systems. The student will be aided by advanced diagnostic test programs and specialized test equipment that can give information on a specific troubleshooting technique to use. (3 lecture and 3 laboratory hours per week). Prerequisite: CPMT 1411.

[CIP15.0402]

**IMED 2415****Web Design  
(4 credits)**

A study of mark-up language advanced layout techniques for creating web pages. Emphasis on identifying the target audience and producing web sites according to accessibility standards, cultural appearance, and legal issues. (3 lecture and 3 laboratory hours per week) [CIP 11.0801]

**ITMC 2355****Deploying & Managing Microsoft Internet Security & Acceleration Server  
(3 credits)**

Advanced concepts of deploying and managing Microsoft Internet Security and Acceleration (ISA)

Server in an enterprise environment. Explain the use of ISA Server as a cache server and as an enterprise firewall; Install and configure ISA Server as a cache server and as a firewall; configure access policies to enable secure internet access for client computers; configure ISA Server as a cache server; configure ISA Server as a virtual private network (VPN); configure ISA Server as a firewall; configure access to selected internal resources; monitor ISA Server activities by using alerts, logging, reporting, and real-time monitoring; install and configure ISA Server for an enterprise environment. (2 lecture and 2 laboratory hours per week) Prerequisite ITMT 1340. [CIP11.0901]

**ITMT 1302****Windows Seven Configuration  
(3 credits)**

A study of Windows Seven operating system; installation, configuration, and troubleshooting; file management; users accounts and permissions; security features; network connectivity; setup of external devices; optimization and customization; and deployment of application, with hand-on experience. (2 lecture and 2 laboratory hours per week) Prerequisites: ITNW 1358 or 1325 and BCIS 1405 or COSC 1401. [CIP11.0901]

**ITMT 1340****Managing and Maintaining a Microsoft Windows Server 2003 Environment  
(3 credits)**

Managing accounts and resources, maintaining server resources, monitoring server performance, and safeguarding data in a Microsoft Windows Server 2003 environment. (2 lecture and 2 laboratory hours per week). Prerequisite: BCIS 1405 or COSC 1401, and ITNW 1325 or 1358. [CIP11.0901]

**ITMT 1350****Implementing Managing, & Maintaining a Windows Server 2003 Network Infrastructure  
(3 credits)**

Implementing routing; implementing, managing, and maintaining Dynamic Host Configuration Protocol (DHCP), Domain Name System (DNS), and Windows Internet Name Service (WINS); securing Internet Protocol (IP) traffic with Internet Protocol security (IPSec) and certificates; implementing a network access infrastructure by configuring the connections for remote access clients; and managing and monitoring network access. (2 lecture and 2 laboratory hours per week). Prerequisite: ITMT 1340 [CIP11.0901]

**ITMT 1355****Planning & Maintaining a Microsoft Windows Server 2003 Network Infrastructure  
(3 credits)**

Plan a TCP/IP physical and logical network; plan a Dynamic Host Configuration Protocol (DHCP) strategy; plan a Domain Name System (DNS) strategy; plan and optimize Windows Internet Naming Service (WINS); and troubleshoot network access. (2 lecture and 2 laboratory hours per week). Prerequisite: ITMT 1340 [CIP11.0901]

**ITMT 2300****Planning, Implementing & Maintaining a Windows Server 2003 Active Directory Infrastructure****(3 credits)**

Windows Server 2003 directory service environment. Includes forest and domain structure; Domain Name System (DNS); site topology and replication; organizational unit structure and delegation of administration; Group Policy; and user, group, and computer account strategies. (2 lecture and 2 laboratory hours per week).

Prerequisite: ITMT 1340 or ITMT 2301. [CIP11.0901]

**ITMT 2301****Windows Server 2008 Network Infrastructure Configuration****(3 credits)**

A course in Windows Server 2008 networking infrastructure to include installation, configuration, and troubleshooting of Internet Protocol (IP) addressing, network services and security. Prerequisite ITMT 1302. [CIP11.0901]

**ITMT 2302****Windows Server 2008 Active Directory Configuration****(3 credits)**

A study of Active Directory Service on Windows Server 2008. Concepts of resource management within an enterprise network environment. (2 lecture and 2 laboratory hours per week).

Prerequisite ITMT 1340. [CIP11.0901]

**ITMT 2322****Windows Server 2008 Applications Infrastructure Configuration****(3 credits)**

A course in the installation, configuring, maintaining, and troubleshooting of an Internet Information Services (IIS) 7.0 web server and Terminal Services in Windows Server 2008 (2 lecture and 2 laboratory hours per week). Prerequisite ITMT 2301 or ITMT 1340. [CIP11.0901]

**ITMT 2330****Designing a Microsoft Windows Server 2003 Active Directory Infrastructure****(3 credits)**

Designing a Microsoft Active Directory service and network infrastructure for a Microsoft Windows Server 2003 environment. Intended for systems engineers who are responsible for designing directory service and/or network infrastructures. Prerequisite: ITMT1340. [CIP11.0901]

**ITMT 2340****Designing Security for Server 2003 Networks****(3 credits)**

Assembling the design team, modeling threats, and analyzing security risks in order to meet business requirements for securing computers in a networked environment. Includes decision-making skills through an interactive tool that simulates real-life scenarios. Focuses on collecting information and sorting through details to resolve a given security requirement. (2 lecture and 2 lab hours per week) Prerequisite: ITMT 1302 or ITMT 1340. [CIP11.0901]

**ITMT 2346****Implementing & Administering Security in a Microsoft Windows Server 2003 Network****(3 credits)**

Addresses the Microsoft Certified Systems Administrator (MCSA) and Microsoft Certified Systems Engineer (MCSE) skills path for information technology security practitioners. Focuses on Microsoft Windows Server 2003 infrastructure solutions. Includes client-focused content where appropriate. Provides functional skills in planning and implementing infrastructure security. (2 lecture and 2 laboratory hours per week).

Prerequisite: ITMT 1340. [CIP11.0901]

**ITMT 2351****Windows Server 2008: Server Administrator****(3 credits)**

Knowledge and skills for the entry-level server administrator or information technology (IT) professional to implement, monitor and maintain Windows Server 2008 servers. (2 lect. & 2 lab. hrs/ week). Prerequisite ITMT 2301 or ITMT 2302. [CIP11.0901]

**ITNW 1325****Fundamentals of Networking****(3 credits)**

Instruction in networking technologies and their implementation. Topics include the OSI reference model, network protocols, transmission media, and networking hardware and software. (2 lecture and 2 laboratory hours per week). [CIP11.0901]

**ITNW 1358****Network+****(3 credits)**

Prepares individuals for a career as a Network Engineer in the Information Technology support industry. Includes the various responsibilities and tasks required for service engineer to successfully perform in a specific environment. Prepares individuals to pass the Computing Technology Industry Association (CompTIA) Network+ certification exam. (2 lecture plus 2 lab hours per week) [CIP11.0901]

**ITNW 2321****Networking with TCP/IP****(3credits)**

Set up, configure, use, and support Transmission Control Protocol/Internet Protocol (TCP/IP) on networking operating systems. Configure IP addressing and routing; design and implement a domain name server; implement static and dynamic IP addressing; explain subnets and supernets; and use network management utilities to manage and troubleshoot IP networks. (2 lecture and 2 laboratory hours per week). Prerequisite: ITMT 1302 or ITMT 1340. [CIP11.0901]

**ITSE 1407****Introduction to C++ Programming****(4 credits)**

Introduction to computer programming using C++. Emphasis on the fundamentals of structured design with development, testing, implementation, and documentation. Includes language syntax, data and file structures, input/output devices, and files. (3 lecture and 3 laboratory hours per week). Prerequisite: BCIS 1405 or COSC 1401. [CIP11.0201]

**ITSE 1422****Introduction to C Programming****(4 credits)**

Introduction to programming using C. Emphasis on the fundamentals of structured design, development, testing, implementation, and documentation. Includes language syntax, data and file structures, input/output devices, and files. (3 lecture and 3 laboratory hours per week). Prerequisite: READ 0309. [CIP11.0201]

**ITSE 1431****Introduction to Visual BASIC Programming****(4 credits)**

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. (3 lecture and 3 laboratory hours per week). Prerequisite: READ 0309. [CIP11.0201]

**ITSE 1445****Introduction to Oracle SQL****(4 credits)**

An introduction to the design and creation of relational databases using Oracle. topics include storing, retrieving, updating, and displaying data using Structured Query Language (SQL). (3 hours lecture and 3 laboratory hours per week). Prerequisite: BCIS 1431 or BCIS 1420 or another programming language course. [CIP11.0201]

**ITSE 1491****Special Topics in Computer Programming – Computer Programming****(4 credits)**

This course is an introduction to computer programming. (3 lecture and 3 laboratory hours per week). Prerequisite: MATH 0309 and BCIS 1405 or COSC 1401. [CIP11.0201]

**ITSE 2387****Internship - Computer Programming****(3 credits)**

An experience external to the college for an advanced student in a specialized field involving a written agreement between the educational institution and a business or industry. Mentored and supervised by a workplace employee, the student achieves objectives that are developed and documented by the college and that are directly related to specific occupational outcomes. This may be a paid or unpaid experience. (20 laboratory hours per week). Prerequisite: READ 0309 and at least 3 computer programming languages from ITSE 1422, COSC 1420, ITSE 1431 or ITSE 2417. [CIP11.0201]

**ITSE 2402****Intermediate Web Programming****(4 credits)**

Intermediate applications for web authoring. Topics may include server side include (SSI), Perl, HTML, Java, Javascript, and/or ASP. (3 lecture and 2 laboratory hours per week). Prerequisite: ITSE 1411. [CIP11.0201]

**ITSE 2409****Database Programming****(4 credits)**

Application development using database programming techniques emphasizing database structures, modeling, and database access.

(3 lecture and 3 laboratory hours per week). Prerequisite: BCIS 1405 or COSC 1401. [CIP11.0201]

**ITSE 2413****Web Authoring****(4 credits)**

Instruction in designing and developing web pages that incorporate text, graphics, and other supporting elements using current technologies and authoring tools. (3 lecture and 3 laboratory hours per week). Prerequisite: READ 0309. [CIP11.0201]

**ITSE 2417****JAVA Programming****(4 credits)**

Introduction to JAVA programming with object-orientation. Emphasis on the fundamental syntax and semantics of JAVA for applications and web applets. (3 lecture and 3 laboratory hours per week). Prerequisite: READ 0309 and BCIS 1420. [CIP11.0201]

**ITSE 2449****Advanced Visual BASIC Programming****(4 credits)**

Further applications of programming techniques using Visual BASIC. Topics include file access methods, data structures and modular programming, program testing and documentation. (3 lecture and 3 laboratory hours per week). Prerequisite: READ 0309, ITSE 1431, and BCIS 1431. [CIP11.0201]

**ITSY 1342****Information Technology Security****(3 credits)**

Basic information security goals of availability, integrity, accuracy, and confidentiality. Vocabulary and terminology specific to the field of information security are discussed. Identification of exposures and vulnerabilities and appropriate countermeasures are addressed. The importance of appropriate planning and administrative controls is also discussed. (2 lecture and 2 laboratory hours per week) Prerequisite: ITMT 1340 [CIP11.0901]

**ITSW 1404****Introduction to Spreadsheets****(4 credits)**

This course is an instruction in the concepts, procedures, and application of electronic spreadsheets. This course will identify spreadsheet terminology and concepts; create formulas and functions; use formatting features; and generate charts, graphs, and reports. (3 lecture and 3 laboratory hours per week) Prerequisites: READ 0309 [CIP11.0301]

**Court Reporting**

*Bill Cranford, Department Chairperson*

*Karen Downey, Micki Kincaide, Laura Noulles, Robin McCartney, Jim Preston, Roland Scott*

**CRTR 1207****Machine Shorthand Speedbuilding (60-80)****(2 credits)**

Continued development of realtime shorthand skills through readback, machine practice, and transcription. This course is designed to be repeated to meet program standards. (2 lecture and 1 laboratory hours per week) Prerequisite: CRTR 1404 [CIP22.0303]

**CRTR 1302****Law and Legal Terminology****(3 credits)**

Instruction in civil law, criminal law, the judicial system (discovery trial and appellate process), methods of researching legal citations, and the legal terms used in the reporting profession. (3 lecture hours per week). Prerequisite: READ 0310, ENGL 0310. [CIP52.0405]

**CRTR 1308****Realtime Reporting I****(3 credits)**

Development of skills necessary for writing conflict-free theory and dictation practice using computer-aided technology and instructional interaction. Emphasis will be placed on writing techniques to ensure a conflict-free system of machine writing by drill and dictation of geographical matter, names in current events and history, number inputting, along with methods of preparing transcripts. (2 lecture and 3 laboratory hours per week). Prerequisites: CRTR 1314, CRTR 1406. [CIP52.0405]

**CRTR 1312****Reporting Communications I****(3 credits)**

Study of basic rules of English grammar and spelling, punctuation, capitalization and proofreading skills as they apply to the production of transcripts of the spoken word in the reporting field. (2 lecture and 3 laboratory hours per week). Prerequisite: READ 0310, ENGL 0310. [CIP52.0405]

**CRTR 1314****Reporting Technology I****(3 credits)**

Introduction to computer-aided transcription terminology and systems based on computer-compatible theory. The course includes lectures, dictation, and practical applications of word processing, videotaping, and computer-aided transcription, including proofreading of rough drafts and production of the finished transcript. (2 lecture and 3 laboratory hours per week). Prerequisite: CRTR 1404. [CIP52.0405]

**CRTR 1346****Captioning Reporting I****(3 credits)**

Introduction to realtime/caption production procedures with transcription of materials produced in proper form. Topics include specialized vocabulary (legal, medical, media, education, etc.), utilizing

realtime/caption equipment, the psychology for writing realtime, and the procedures for operation of realtime/captioning software and hardware (2 lecture and 3 laboratory hours per week.) Prerequisite: CRTR 2401. [CIP52.0405]

**CRTR 1357****Literary/Jury Charge Dictation I (100-120)****(3 credits)**

Skills necessary to develop speed and accuracy in writing and transcribing literary/jury charge dictation. This course is designed to be repeated to meet program standards. (2 lecture and 3 laboratory hours per week.) Prerequisite: CRTR 1404. [CIP22.0303]

**CRTR 1359****Literary/Jury Charge Dictation II (140-160)****(3 credits)**

Continued skill development necessary for speed and accuracy in writing and transcribing literary/jury charge dictation. (2 lecture and 3 laboratory hours per week.) Prerequisite: CRTR 1406. [CIP22.0303]

**CRTR 1404****Machine Shorthand I****(4 credits)**

Instruction in general principles of conflict-free machine shorthand theory and skill building through readback of dictation notes, machine practice, and transcription. (2 lecture and 8 laboratory hours per week). Prerequisite: READ 0310, ENGL 0310 [CIP52.0405]

**CRTR 1406****Machine Shorthand II (60-80-100)****(4 credits)**

Continued development of conflict-free shorthand skills through readback of dictation notes, machine practice and transcription. The student's objective is to pass tests at 60 wpm, 80 wpm, and 100 wpm. (2 lecture and 8 laboratory hours per week). Prerequisites: CRTR 1404, READ 0310, ENGL 0310. [CIP52.0405]

**CRTR 2236****Accelerated Machine Shorthand II (180-200-225)****(2 credits)**

Continuation of skill development and mastery of high-speed dictation including readback, machine practice and transcript production. This course may be repeated multiple times until machine shorthand standards are met. (2 lecture and 3 laboratory hours per week.) Prerequisite: CRTR 2401. [CIP22.0303]

**CRTR 2306****Medical Reporting****(3 credits)**

Orientation to medical terms and anatomy as needed in the reporting profession. Topics include medical reporting transcription techniques and production of machine shorthand medical transcripts. Lectures, study guides, tests, and exercises designed to ensure the student's knowledge of the components in building a medical vocabulary and the application thereof. (3 lecture hours per week). Prerequisite: READ 0310, ENGL 0310, CRTR 1404, [CIP52.0405]

**CRTR 2311****Reporting Communications II  
(3 credits)**

In-depth coverage of grammar, spelling, punctuation, capitalization, vocabulary and proofreading skills necessary to produce reporting and/or spoken word documents. The student is given dictation for transcribing and is tutored in voice and speech patterns while reading notes aloud. (2 lecture hours and 3 laboratory hours per week). Prerequisites: READ 0310, ENGL 0310, CRTR 1312. [CIP52.0405]

**CRTR 2312****Court Reporting Procedures  
(3 credits)**

Instruction in the role of the court reporter in court proceedings and/or depositions. (2 lecture and 3 laboratory hours per week.) Prerequisite: CRTR 2401 and CRTR 1308. [CIP22.0303]

**CRTR 2313****Reporting Technology II (Scopist)  
(3 credits)**

Instruction in the operation, maintenance, and assembly of a computer-aided real-time transcription system, including the computer functions necessary for transcript production. (2 lecture hours and 3 laboratory hours per week). Prerequisites: CRTR 1404, CRTR 1314 [CIP22.0303]

**CRTR 2331****Certified Shorthand Reporter (CSR) and  
Registered Professional Reporter (RPR)****Preparation  
(3 credits)**

Preparation for taking the Texas CSR and the RPR examinations through the use of mock examinations. (2 lecture and 3 laboratory hours per week). Prerequisites: CRTR 2403. [CIP52.0405]

**CRTR 2333****Captioning Reporting II  
(3 credits)**

In-depth presentation of realtime/caption production procedures with transcription of materials produced in proper form. Topics include the techniques utilized in reporting for seminars, conferences, and conventions and in the broadcast environments. Emphasis is placed on off-line and on-line captioning. The course includes extensive supervised community interaction. (2 lecture and 3 laboratory hours per week). Prerequisite: CRTR 1346. [CIP52.0405]

**CRTR 2380****Cooperative Education - Scopist  
(3 credits)**

An experience external to the college for an advanced student in a specialized field involving a written agreement between the educational institution and a business or industry. Mentored and supervised by a workplace employee, the student achieves objectives that are developed and documented by the college and that are directly related to specific occupational outcomes. This may be a paid or unpaid experience. This course is designed for students pursuing the Court Reporting Scopist Certificate. The student will gain experience in scoping transcripts for reporters,

general office procedures utilized in reporting firms, and the methods used in binding and preparing the final transcript for delivery. (1 lecture and 20 laboratory hours per week). Prerequisite: CRTR 1314, CRTR 2311. [CIP52.0405]

**CRTR 2381****Cooperative Education - Court Reporter  
(3 credits)**

An experience external to the college for an advanced student in a specialized field involving a written agreement between the educational institution and a business or industry. Mentored and supervised by a workplace employee, the student achieves objectives that are developed and documented by the college and that are directly related to specific occupational outcomes. This may be a paid or unpaid experience. The student may begin the cooperative upon completion of all 180 wpm requirements, and the student will achieve a minimum of 40 actual writing hours with a court reporter on job assignments. The student will produce a saleable transcript of no less than 50 pages (unpaid work). A journal will be kept by the student recounting his/her experiences on the job. The student will keep a record of actual machine writing hours. (1 lecture and 20 laboratory hours per week). Prerequisites: CRTR 2403 and CRTR 1314. [CIP52.0405]

**CRTR 2401****Intermediate Machine Shorthand (120-140)  
(4 credits)**

Continued development of conflict-free machine shorthand skills through readback of dictation notes, machine practice and transcription. The student's objective is to pass dictated tests at 120 and 140 wpm. (2 lecture and 8 laboratory hours per week). Prerequisite: CRTR 1406. [CIP52.0405]

**CRTR 2403****Advanced Machine Shorthand (160-180)  
(4 credits)**

In-depth coverage of conflict-free shorthand theory and continued skill building through readback of dictation notes, machine practice, and transcription. The student's objective is to pass tests at 160 and 180 wpm. (2 lecture and 8 laboratory hours per week). Prerequisite: CRTR 2401. [CIP52.0405]

**CRTR 2435****Accelerated Machine Shorthand (200-225)  
(4 credits)**

Mastery of high-speed dictation including readback of dictation notes, machine practice and transcription. The student's objective is to pass dictated tests at 200 and 225 wpm. (2 lecture and 8 laboratory hours per week). Prerequisite: CRTR 2403. [CIP52.0405]

**Criminal Justice**

*Maurice Cook, Department Chairperson  
Jeff Gambrell*

**CJCR 1300****Basic Jail Course  
(3 credits)**

Provides instruction in human relations, observation, evaluation of prisoners, booking procedures, classification, mug shots, fingerprinting, strip searches, meals, medical services, visitation, inmates rights and privileges, detention areas, key, knife and tool control, disturbances, riots, fire procedures and release procedures. Taught in accordance with the current TCLEOSE instructor guides provided by the Commission for course #1005. (3 lecture hours per week). [CIP53.0102]

**CJCR 1304****Probation and Parole  
(3 credits)**

A survey of the structure, organization, and operation of probation and parole services. Emphasis on applicable state statutes and administrative guidelines. (3 lecture hours per week). [CIP43.0102]

**CJCR 2324****Community Resources in Corrections  
(3 credits) Tech Prep/Dual Credit only**

An introductory study of the role of the community in corrections in; community programs for adults and juveniles; administration of community programs; legal issues; future trends in community treatment. (3 lecture hours per week). [CIP43.0102]

**CJCR 2325****Legal Aspects of Corrections  
(3 credits)**

A study of the operation, management, and legal issues affecting corrections. analysis of constitutional issues involving rights of the convicted, as well as civil liability of correctional agencies and staff. (3 lecture hours per week). [CIP43.0102]

**CJLE 1506****Basic Peace Officer I  
(5 credits)**

This course is one of a series of courses taught in the Police Academy. The course provides instruction and participation in U.S. & Texas Constitution & Bill of Rights, Penal Code, Use of Force, Traffic Law & Accident Investigation, Code of Criminal Procedure, Juvenile Issues - Texas Family Code, Professionalism & Ethics. (3 lecture hours / 6 lab hours) Prerequisites: Approval from Department Chair and enrollment in the Police Academy. [CIP43.0107]

**CJLE 1512****Basic Peace Officer II  
(5 credits)**

This course is one in a series of courses taught in the Police Academy. The course provides instruction and participation in Arrest, Search & Seizure, Patrol Procedures, Civil Process & Liability, Field Note Taking, Texas Alcoholic Beverage Code, Emergency Communications, Family Violence, MHMR. (3 lecture hours / 6 lab hours) Prerequisites: Approval from Department Chair and enrollment in the Police Academy. [CIP43.0107]

**CJLE 1518**

**Basic Peace Officer III  
(5 credits)**

This course is one in a series of courses taught in the Police Academy. The course provides instruction and participation in Fitness & Wellness, Multiculturalism, History of Policing, Criminal Justice System, Drugs, Stress Management, Hazardous Materials Awareness, Victims of Crime, Problem Solving, Professional Policing Approaches, Criminal Investigation. (3 lecture hours / 6 lab hours) Prerequisites: Approval from Department Chair and enrollment in the Police Academy. [CIP43.0107]

**CJLE 1524**

**Basic Peace Officer IV  
(5 credits)**

This course is one in a series of courses taught in the Police Academy. The course provides instruction and participation in Mechanics of Arrest, Emergency Medical Assistance, Professional Police Driving. (3 lecture hours / 6 lab hours) Prerequisites: Approval from Department Chair and enrollment in the Police Academy. [CIP43.0107]

**CJLE 1211**

**Basic Peace Officer V  
(2 credits)**

This course is one in a series of courses taught in the Police Academy. The course provides instruction and participation in Basic Firearms Training. (1 lecture hour / 2 lab hours) Prerequisites: Approval from Department Chair and enrollment in the Police Academy. [CIP43.0107]

**CJLE 2424**

**Texas Peace Office Capstone  
(4 credits)**

Recently identified current events, skills, knowledge, and/or attitudes and behaviors that are components of the Texas Commission on Law Enforcement (TCLEOSE) learning objectives pertinent to a law enforcement career. This class is the capstone course of TCLEOSE Course 1011 (3 lecture hours and 4 lab hours per week) [CIP43.0107]

**CJLE 2345**

**Vice and Narcotics Investigation  
(3 credits)**

Study of various classifications of commonly used narcotics, dangerous drugs, gambling, sex crimes, fraud, gangs and investigative techniques; and identify proper interaction procedures and techniques. (3 lecture hours per week). [CIP43.0107]

**CJLE 2420**

**Texas Peace Officer Procedures  
(4 credits)**

Study of the techniques and procedures used by police officers on patrol. Includes controlled substance identification, handling abnormal persons, traffic collision investigation, notetaking and report writing, vehicle operation, traffic direction, crowd control, and jail operations. This is a TCLEOSE-approved sequencing course to satisfy requirements to sit for the Basic Peace Officer licensure exam in addition to obtaining an Associate's or Bachelor's Degree with approval of the department chair. (3 lecture and 4 laboratory hours per week). [CIP43.0107]

**CJLE 2421**

**Texas Peace Officer Law  
(4 credits)**

Study of laws directly related to police field work. Topics include Texas Transportation Code, intoxicated driver, Texas Penal Code, elements of crimes, Texas Family Code, Texas Alcoholic Beverage Code, and civil liability. This is a TCLEOSE-approved sequencing course to satisfy requirements to sit for the Basic Peace Officer licensure exam in addition to obtaining an Associate's or Bachelor's Degree and approval of the department chair. (3 lecture and 4 laboratory hours per week). [CIP43.0107]

**CJLE 2522**

**Texas Peace Officer Skills  
(5 credits)**

Requires the demonstration and practice of the skills of a police officer including patrol, driving, traffic stop skills, use of force, mechanics of arrest, firearm safety, and emergency medical care. This is a TCLEOSE-approved sequencing course to satisfy requirements to sit for the Basic Peace Officer licensure exam in addition to obtaining an Associate's or Bachelor's Degree and approval of the department chair. (3 lecture and 5 laboratory hours per week). [CIP43.0107]

**CJSA 1308**

**Criminalistics I  
(3 credits)**

Introduction to the field of criminalistics. Topics include the application of scientific and technical methods in the investigation of crime including location, identification, and handling of evidence for scientific analysis. (3 lecture hours per week). [CIP43.0104]

**CJSA 1325**

**Criminology  
(3 credits)**

This course examines the cases, treatment and prevention of crime and delinquency. Students will analyze the various aspects of deviant behavior, criminological and methodological, relative to the social sciences. (3 lecture hours per week). [CIP43.0104]

**CJSA 1342**

**Criminal Investigation  
(3 credits) Tech Prep/Dual Credit only**

Investigative theory; collection and preservation of evidence; sources of information; interview and interrogation; uses of forensic sciences; case and trial preparation. (3 lecture hours per week). [CIP 43.0104]

**CJSA 1351**

**Use of Force  
(3 credits)**

A study of the use of force including introduction to and statutory authority for the use of force, force options, deadly force, and related legal issues. Fulfills the TCLEOSE Use of Force Intermediate Certificate requirement. (3 lecture hours per week). [CIP43.0104]

**CJSA 1364, CJSA 1365**

**Practicum (or Field Experience) - Criminal Justice Studies, Corrections  
(3 credits)**

Practical general training and experiences in the workplace. The College, with the employer, develops and documents an individualized plan for the student. The plan relates the workplace training and experiences to the student's general and technical course of study. The guided external experiences may be paid or unpaid. This course may be repeated if topics and learning outcomes vary. Student may enroll in only one Practicum course per semester. (21 external hours per week). [CIP43.0104]

**CJSA 2302**

**Police Management, Supervision, and Related Topics  
(3 credits)**

Techniques and theories regarding dealing with people, their performance and problems. Topics include basic supervision, leadership, time management, first-line supervision, and management by objectives. (3 lecture hours per week). [CIP43.0103]

**CJSA 2323**

**Criminalistics II  
(3 credits)**

Theory and practice of crime scene investigation. Topics include report writing, blood and other body fluids, document examination, etchings, casts and molds, glass fractures, use of microscope and firearms identification. (2 lecture and 4 laboratory hours per week). [CIP43.0104]

**CJSA 2332**

**Criminalistics III  
(3 credits)**

A study of the practical aspects of criminalistics procedures. Topics include crime scene investigation, collecting and preserving evidence, and testifying in court. (2 lecture and 4 laboratory hours per week). [CIP43.0104]

**CJSA 2364, CJSA 2365**

**Practicum (or Field Experience) - Criminal Justice Studies, Law Enforcement  
(3 credits)**

Practical general training and experiences in the workplace. The College, with the employer, develops and documents an individualized plan for the student. The plan relates the workplace training and experiences to the student's general and technical course of study. The guided external experiences may be paid or unpaid. This course may be repeated if topics and learning outcomes vary. Student may enroll in only one Practicum course per semester. (21 external hours per week). [CIP43.0104]

**CJLE 2424**

**Texas Peace Officer Capstone  
(3 credits)**

Recently identified current events, skills, knowledge, and/or attitudes and behaviors that are components of the Texas Commission on Law Enforcement (TCLEOSE) learning objectives pertinent to a law enforcement career. This class is the capstone course of TCLEOSE Course 1011. (3 lecture and 4 laboratory hours per week). [CIP43.0107]

**CRIJ 1301**  
**Introduction to Criminal Justice**  
**(3 credits)**

History and philosophy of criminal justice and ethical considerations; crime defined; its nature and impact; overview of the criminal justice system; law enforcement; court system; prosecution and defense; trial process; corrections. (3 lecture hours per week). [CB4301045124]

**CRIJ 1306**  
**Court Systems and Practices**  
**(3 credits)**

The judiciary in the criminal justice system; structure of the American court system; prosecution; right to counsel; pre-trial release, grand juries; adjudication process, types and rules of evidence, and sentencing. (3 lecture hours per week). [CB2201015424]

**CRIJ 1307**  
**Crime in America**  
**(3 credits)**

This course explores American crime problems in a historical perspective, social and public policy factors affecting crime, impact and crime trends, social characteristics of specific crimes, and prevention of crime. (3 lecture hours per week). [CB4504015242]

**CRIJ 1310**  
**Fundamentals of Criminal Law**  
**(3 credits)**

A study of the nature of criminal law; philosophical and historical development; major definitions and concepts; classification of crime; elements of crimes and penalties using Texas statutes as illustrations; criminal responsibility. (3 lecture hours per week). [CB2201015324]

**CRIJ 1313**  
**Juvenile Justice System**  
**(3 credits)**

A study of the juvenile justice process to 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. (3 lecture hours per week). [CB4301045224]

**CRIJ 2301**  
**Community Resources in Corrections**  
**(3 credits)**

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. (3 lecture hours per week). [CB4301045324]

**CRIJ 2313**  
**Correctional Systems and Practices**  
**(3 credits)**

Corrections in the criminal justice system, organization of correctional systems; correctional role; institutional operations; alternatives to institutionalization; treatment and rehabilitation; current and future issues. (3 lecture hours per week). [CB4301045442]

**CRIJ 2314**  
**Criminal Investigation**  
**(3 credits)**

Investigative theory; collection and preservation of evidence; sources of information; interview and interrogation; uses of forensic sciences; case and trial preparation. (3 lecture hours per week). [CB4301045542]

**CRIJ 2323**  
**Legal Aspects of Law Enforcement**  
**(3 credits)**

Police authority; responsibilities; constitutional constraints; laws of arrest, search, and seizure; police liability. (3 lecture hours per week). [CB4301045642]

**CRIJ 2328**  
**Police Systems and Practices**  
**(3 credits)**

The police profession; organization of law enforcement systems; the police role; police discretion; ethics, police-community interaction, current and future issues. (3 lecture hours per week). [CB4301045742]

## Culinary Arts

*Leslie Bartosh, Department Chairperson*

**CHEF 1291**  
**Current Events in Culinary Arts**  
**(2 Credits)**

Topics address recently identified current events, skills, knowledge's, 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. Topics include sustainable agriculture, aquaculture, current events affecting food safety and career exploration. (2 lecture hours per week). Prerequisite: READ 0309 [CIP12.0503]

**CHEF 1301**  
**Basic Food Preparation**  
**(3 Credits)**

A study of the fundamental principles of food preparation and cookery to include the Brigade System, cooking techniques, material handling, heat transfer, sanitation, safety, nutrition, and professionalism. Knife skills, proper tool and equipment use, dry and moist heat cookery, stock and sauce production are among the topics covered. (2 lecture and 3 lab hours per week). Corequisite: CHEF 1305 & PSTR 1301 [CIP12.0503]

**CHEF 1302**  
**Principles of Healthy Cuisine**  
**(3 Credits)**

Introduction to the principles of planning, preparation, and presentation of nutritionally balanced meals. Adaptation of basic cooking techniques to lower

the fat and caloric content. Alternative methods and ingredients will be used to achieve a healthier cooking style. Students will modify recipes and substitute ingredients to reduce calories, sugar, fat, and sodium. (2 lecture and 3 lab hours per week). Prerequisite: CHEF 1301. [CIP12.0503]

**CHEF 1305**  
**Sanitation and Safety**  
**(3 Credits)**

A study of personal cleanliness; sanitary practices in food preparation; causes, investigation, control of illness caused by food contamination (Hazard Analysis Critical Control Points); and work place safety standards. Topics include: causes of and prevention procedures for food-borne illness, intoxication, and infection; good personal hygiene and safe food handling procedures; food storage and refrigeration techniques; sanitation of dishes, equipment, and kitchens including cleaning material, garbage, and refuse disposal; Occupational Safety and Health Administration (OSHA) requirements and effective workplace safety programs. The student has the opportunity to earn the ServSafe Certificate through this course. (3 lecture hours per week). Corequisite: CHEF 1301 [CIP12.0503]

**CHEF 1310**  
**Garde Manger**  
**(3 Credits)**

A study of specialty foods and garnishes. Emphasis on design, techniques, and display of fine foods. Topics will include hot and cold hors d'oeuvres, canapés, salads, basic charcuterie skills, and the preparation of forcemeat items. (2 lecture and 3 lab hours per week). Prerequisite: CHEF 1301. [CIP12.0503]

**CHEF 1341**  
**American Regional Cuisine**  
**(3 Credits)**

A study of the development of regional cuisine's in the United States with emphasis on the similarities in production and service systems. Application of skills to develop, organize, and build a portfolio of recipe strategies and production systems. The importance of the immigration phenomena in shaping America's cuisine will be examined as students prepare regional specialties. (2 lecture and 3 lab hours per week). Prerequisite: CHEF 1301. [CIP12.0503]

**CHEF 1345**  
**International Cuisine**  
**(3 Credits)**

The study of classical cooking skills associated with the preparation and service of international and ethnic cuisines. Topics include similarities between food production systems used in the United States and other regions of the world. The cuisines of Latin America, France, Spain, the Middle East, Germany, Eastern Europe and Asia are explored in this class. (2 lecture and 3 lab hours per week). Prerequisite: CHEF 1301. [CIP12.0503]

**CHEF 1364**  
**Practicum**  
**(3 Credits)**

Practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student. As outlined

in the learning plan; apply the theory, concepts, and skills involving specialized materials, tools, equipment, procedures, regulations, laws, and interactions within and among political, economic, environmental, social, and legal systems associated with the occupation and the business/industry and will demonstrate legal and ethical behavior, safety practices, interpersonal and teamwork skills, and appropriate written and verbal communication skills using the terminology of the occupation and the business/industry. (30 practicum hours per week). Prerequisite: CHEF 1301. [CIP12.0503]

**CHEF 1365**  
**Practicum**  
**(3 Credits)**

Practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student. As outlined in the learning plan; apply the theory, concepts, and skills involving specialized materials, tools, equipment, procedures, regulations, laws, and interactions within and among political, economic, environmental, social, and legal systems associated with the occupation and the business/industry and will demonstrate legal and ethical behavior, safety practices, interpersonal and teamwork skills, and appropriate written and verbal communication skills using the terminology of the occupation and the business/industry. (22.5 practicum hours per week). Prerequisite: CHEF 1301. [CIP12.0503]

**CHEF 2301**  
**Intermediate Food Preparation**  
**(3 Credits)**

Continuation of previous food preparation course. Topics include the concept of pre-cooked food items, as well as scratch preparation. Covers full range of food preparation techniques. Topics include: product identification, sandwich and salad cookery, breakfast cookery and the utilization of convenience products. (2 lecture and 3 lab hours per week). Prerequisite: CHEF 1301. [CIP12.0503]

**CHEF 2302**  
**Saucier**  
**(3 Credits)**

Instruction in the preparation of stocks, soups, classical sauces, contemporary sauces, accompaniments, and the pairing of sauces with a variety of foods. Topics include: the usage and storage of stocks and sauces, emulsions, thickening agents, compound butters, dessert sauces, relishes, chutneys, compotes, vinaigrettes. (2 lecture and 3 lab hours per week). Prerequisite: CHEF 1301. [CIP12.0503]

**HAMG 1321**  
**Introduction to the hospitality Industry**  
**(3 Credits)**

Explain the elements of the hospitality industry; discuss current issues facing food service; discuss current guest needs; and explain general hotel/motel operations. Explain and discuss the role of service in the hospitality industry. (3 lecture hours per week). Prerequisite: READ 0309 [CIP52.0901]

**HAMG 1324**  
**Hospitality Human Resources Management**  
**(3 Credits)**

A study of the principles and procedures of managing people in the hospitality workplace. Topics include a systematic approach to human resources planning and implementation as it applies to the hospitality industry; including the procedures involved in making hiring decisions; training and federal laws related to employment. (3 lecture hours per week). Prerequisite: READ 0309 [CIP52.0901]

**IFWA 1217**  
**Food Production and Planning**  
**(2 Credits)**

Skill development in basic mathematical operations and study of their applications in the food service industry. Topics include percentages, weights and measures, ratio and proportion, weights and measures conversions, determination of portion costs for menu items and complete menus, portion control, and the increase and decrease of standard recipes. (2 lecture hours per week). Prerequisite: READ 0309 [CIP12.0508]

**IFWA 1318**  
**Nutrition for the Food Service Professional**  
**(3 Credits)**

An introduction to nutrition including nutrients, digestion and metabolism, menu planning, recipe modification, dietary guidelines and restrictions, diet and disease, and healthy cooking techniques. (3 lecture hours per week). Prerequisite: READ 0309 [CIP12.0508]

**PSTR 1301**  
**Fundamentals of Baking**  
**(3 Credits)**

The Fundamentals of baking including yeast dough, quick breads, pies, cakes, cookies, tarts, and doughnuts. Instruction in flours, fillings, and ingredients. Topics include baking terminology, tool and equipment use, kitchen safety, formula conversions, functions of ingredients, and the evaluation of baked products. (2 lecture and 3 lab hours per week). Corequisite: CHEF 1301 [CIP12.0501]

**RSTO 2301**  
**Principles of Food and Beverage Controls**  
**(3 Credits)**

A study of financial principles and controls of food service operation including review of operation policies and procedures. Topics include financial budgeting and cost analysis emphasizing food and beverage labor costs, operational analysis, and international and regulatory reporting procedures. (3 lecture hours per week). Prerequisite: READ 0309 and BCIS 1405 or COSC 1401. [CIP12.0504]

**Diagnostic Cardiovascular Sonography**

*Jessica Murphy, Department Chairperson*

**CVTT 1161**  
**Clinical - Cardiovascular Technology**  
**(1 Credit)**

A method of instruction providing detailed education, training, work-based experience, and direct patient care generally at a clinical site in the specialty of electrodiagnosics. Specific learning objectives related to ECG, stress testing, and holter monitoring will be met. Students will be instructed, supervised, and evaluated at the clinical site. (6 clinical hours per week). Corequisite: DSAE 1340. [CIP51.0901]

**DMSO 1210**  
**Introduction to Sonography**  
**(Any student who would like to explore the profession of Sonography may take this course)**  
**(2 credits)**

This course is an introduction to the profession of Sonography and the role of the technologists. Emphasis will be placed on medical terminology ethical/legal issues, oral and written communication, management, professional issues related to registry, accreditation, sonography organizations, and the history of ultrasound and the branches of Diagnostic Medical Sonography. (2 lecture hours per week). [CIP51.0910]

**DSAE 1303**  
**Introduction to Echocardiography Techniques (Echo I)**  
**(3 Credits)**

The purpose of this course is to introduce to scanning techniques and procedures with hands-on experience in the lab setting. Emphasis will be placed on the sonographic explanation of the normal adult heart by performing a basic scan protocol to include two-dimensional, M-Mode, and Doppler along with the standard measurements for each modality. (2 lecture and 4 lab hours per week) Corequisite: DSAE 1360. [CIP51.0910]

**DSAE 1318**  
**Sonographic Instrumentation**  
**(3 credits)**

The purpose of this course is to provide an overview of basic acoustical physics, properties of ultrasound, interaction of ultrasound with tissue, transducers, Doppler, instrumentation, image display, artifacts, quality assurance, bioeffects and safety of ultrasound. (2 lecture and 2 lab hours per week) [CIP51.0910]

**DSAE 1340**  
**Diagnostic Electrocardiography**  
**(3 credits)**

A course of study related to electrocardiography procedures such as Electrocardiography (ECG), Stress testing, and Holter monitoring. Emphasis will be placed on performing and interpreting procedures, arrhythmia recognition, cardiovascular pharmacology concepts and treatment methods. Additional topics may also include patient assessment skills, vital signs, history, and clinical monitoring. (2 lecture and 4 lab hours per week) [CIP51.0910]

**DSAE 1360****Clinical– DMST, Introduction to Echocardiography (3 credits)**

This course is an introductory clinical for learning basic echocardiography skills. Students will observe, assist, and begin to gain hands-on experience in clinical. Emphasis will be placed on instrumentation, transducer handling, patient positioning, image orientation, and identification of anatomic structures found in basic echocardiographic views. (16 clinical hours per week) Corequisite: DSAE 1303, DSAE 1318. [CIP51.0910]

**DSAE 1407****Basic Patient Care Skills (4 credits)**

This course presents an overview of basic health and patient care concepts. Topics in this course may include personal/patient safety, infection control, patient monitoring, vital signs, assessment, physical exam, history, and patient transport. (3 lecture and 2 lab hours per week) [CIP51.0910]

**DSAE 2303****Cardiovascular Concepts (this course may be taken in advance or to renew expired A&P prior to acceptance) (3 credits)**

This course offers a detailed study of anatomy, physiology, and pathophysiology of the cardiovascular system. Focus will be on cardiac and vascular structural anatomy, relationships, electrical innervation, embryology, and hemodynamics of the heart and vascular system. Pathophysiology concepts are also covered including the etiology, pathology, signs and symptoms, risk factors, and treatment of cardiovascular disease. (3 lecture and 1 lab hours per week). [CIP51.0910]

**DSAE 2335****Advanced Echocardiography (3 credits)**

This course will cover topics in the ever-changing world of diagnostic cardiac sonography. Potential topics may include transesophageal echo, stress echo, 3D echo, tissue and doppler harmonics, power doppler, tissue doppler, digital echo, contrast echo, intra-operative and intra-cardiac echo. Students will attend conferences and local society meetings as well as review current journals and prepare for the registry examination. (2 lecture and 4 lab hours per week) Prerequisite: DSAE 2437 Corequisite: DSAE 2462. [CIP51.0910]

**DSAE 2361****Clinical – DMST, Echocardiography I (3 credits)**

The purpose of this course is to provide education, training, work-based experience and direct patient care, generally at a clinical site. This will include instruction, supervision, and evaluation of students in the field of echocardiography. Emphasis will be on gaining hands-on experience to develop scanning ability for the evaluation of the normal adult echocardiogram utilizing a standard scan protocol. (12 clinical hours per week) Prerequisite: DSAE 1360, Corequisite: DSAE 2404 [CIP51.0910]

**DSAE 2404****Echocardiographic Evaluation of Pathology I (Echo II) (4 credits)**

The purpose of this course is to emphasize the methods for evaluating adult acquired cardiac pathologies. Topics may include cardiovascular pathophysiology, quantitative measurements, and the application of 2D, Mmode, and Doppler to evaluate for abnormalities. Emphasis will be placed on valvular heart disease, endocarditis, ischemic heart disease, systemic and pulmonary hypertension, pericardial disease, and cardiomyopathy. (2 lecture and 4 lab hours per week) Prerequisite: DSAE 1303 Corequisite: DSAE 2361. [CIP51.0910]

**DSAE 2437****Echocardiographic Evaluation of Pathology II (Echo III) (4 credits)**

This course is a continuation of Echocardiographic Evaluation of Pathology I with emphasis on cardiac disease. Topics may include congenital heart disease, diseases of the aorta and great vessels, cardiac masses, and myxomas, arrhythmias' effect on echo findings and other syndromes and diseases relevant to echocardiography with continued emphasis on quantitative measurements and calculations used during 2D, Mmode, and doppler to evaluate for these diseases. (2 lecture and 4 lab hours per week) Prerequisite: DSAE 2404, Corequisite: DSAE 2461. [CIP51.0910]

**DSAE 2461****Clinical – DMST, Echocardiography II (4 credits)**

This course is to provide additional clinical education, training, experience, and direct patient care. It will include instruction, supervision and evaluation of students in the field of echocardiography. Emphasis will be on broadening and improving existing skills, recognition, evaluation, and measurements of acquired heart disease. (24 clinical hours per week) Prerequisite: DSAE 2361, Corequisite: DSAE 2437 [CIP51.0910]

**DSAE 2462****Clinical – DMST, Echocardiography III (4 credits)**

This course will provide advanced clinical education, training, experience, and patient care. It will include instruction, supervision, and evaluation of students in the field of echocardiography. Emphasis will be placed on recognition and quantification of pathology, improving accuracy, speed and proficiency of the student's skills. (24 clinical hours per week) Prerequisite: DSAE 2461, Corequisite: DSAE 2335. [CIP51.0910]

**DSPE 2261****Clinical-DMST, Pediatric Echocardiography I (2 Credits)**

The purpose of this course is to provide education, training, work-based experience and direct patient care, generally at a clinical site. This will include instruction, supervision, and evaluation of students in the field of pediatric echocardiography. Emphasis

will be on gaining hands-on experience to develop scanning ability for the evaluation of the abnormal pediatric echocardiogram utilizing a standard scan protocol. (12 clinical hours per week) [CIP51.0910]

**DSPE 2255****Neonatal/Pediatric Patient Care Skills (2 Credits)**

This course presents an overview of neonatal and pediatric patient care concepts. Topics in this course may include age appropriate care, patient safety, infection control, patient monitoring, vital signs, assessment, physical exam, thermal regulation, sedation, CPR, PALS, and NRP. (1 lecture and 3 lab hours per week) [CIP 51.0910]

**DSPE 2360****Clinical – DMST, Introduction to Pediatric Echocardiography (3 Credits)**

This is an introductory clinical course for developing basic pediatric echocardiography skills. Students will observe, assist, and begin to gain hands-on experience in the hospital and/or clinic setting. Emphasis will be placed on how to scan the pediatric patient, including safety techniques, engaging the child, sedation, patient positioning, image orientation, and identification of anatomic structures found in the basic pediatric scan. (16 clinical hours per week) [CIP51.0910]

**DSPE1300****Introduction to Pediatric Echocardiography Techniques (3 Credits)**

The purpose of this course is to introduce pediatric echocardiography scanning techniques and procedures with hands-on experience in the laboratory setting. Emphasis will be placed on the sonographic explanation of the neonatal/pediatric heart by performing a basic scan protocol to include two-dimensional, M-Mode, Doppler, and standard measurements. Topics will also include segmental approach to congenital heart disease, situs determination, recognition of septation defects and physiology of persistent fetal circulation. (2 lecture and 3 lab hours per week) Prerequisite: acceptance into program [CIP51.0910]

**DSPE 2357****Echocardiographic Evaluation of Congenital Heart Disease I (3 Credits)**

The purpose of this course is to emphasize the methods for evaluating congenital heart disease. Topics may include physiology, hemodynamics, and anomalies of each of the following: the aorta, arch, aortic valve, tetralogy of Fallot, pulmoic valve (atresia), tricuspid valve (Ebstein's), and pulmonary veins. The evaluation will include pathophysiology, quantitative measurements, and the application of echo techniques to identify and quantify these anomalies. (2 lecture and 3 lab hours per week) [CIP51.0910]

**DSPE 2359****Advanced Pediatric Echocardiography  
(3 Credits)**

This course will cover topics in specialized techniques in pediatric echocardiography. Topics will include transesophageal echocardiography and fetal echocardiography. The course will also focus on acquired cardiac pathology and additional rare anomalies. (2 lecture and 3 lab hours per week) [CIP51.0910]

**DSPE 2349****Echocardiographic Evaluation of Congenital Heart Disease II  
(3 Credits)**

This course is a continuation of Echocardiographic Evaluation of Congenital Heart Disease I. Topics will include anomalies of the following: great vessels, ventricles (ie: hypoplasia), and extra cardiac structures. In addition, echo evaluation of post operative repairs and defects shall be included with continued emphasis on quantitative measurements and calculations used during 2D, M-Mode, and Doppler. (2 lecture and 3 lab hours per week) [CIP51.0910]

**DSPE 2461****Clinical – DMST, Pediatric Echocardiography II  
(4 Credits)**

The purpose of this course is to provide additional clinical education, training, experience, and direct patient care. It will include instruction, supervision and evaluation of students in the field of pediatric echocardiography. Emphasis will be on broadening and improving existing skills, recognition, evaluation, and quantification of congenital heart disease. (24 clinical hours per week) . [CIP51.0910]

**DSPE 2462****Clinical – DMST, Pediatric Echocardiography III  
(4 Credits)**

This course will provide advanced clinical education, training, experience, and patient care. It will include instruction, supervision, and evaluation of students in the field of pediatric echocardiography. Emphasis will be placed on recognition and quantification of pathology, improving accuracy, speed and proficiency of the student's skills. (24 clinical hours per week) [CIP51.0910]

**DSVT 1300****Principles of Vascular Technology (Vasc I)  
(3 credits)**

The purpose of this course is to introduce non-invasive vascular technology modalities including two-dimensional imaging, duplex, doppler, plethysmography, and segmental pressures. Emphasis will be on performing basic exam protocols for carotid duplex, arterial duplex and non-imaging, and venous duplex along with basic measurements and features of the normal exam. (2 lecture and 4 lab hours per week) Corequisite: DSVT 1360, DSAE 1318. [CIP51.0910]

**DSVT 1360****Clinical – DMST, Introduction to Vascular  
(3 credits)**

This is an introductory clinical for learning basic non-invasive vascular techniques. Students will observe, assist, and begin to gain hands-

on experience in clinical. Emphasis will be on instrumentation, patient positioning, transducer handling, image orientation, and identification of anatomic structures and waveforms. (16 clinical hours per week) Corequisite: DSVT 1300. [CIP51.0910]

**DSVT 2335****Advanced Non-Invasive Vascular Technology  
(3 credits)**

This course will cover advances in the ever changing world of diagnostic medical sonography specifically, peripheral non-invasive vascular technology. Possible topics may include intravascular ultrasound, transcranial imaging, 3D, power doppler, intra-operative, and abdominal vascular concepts. Students will attend conferences and local society meetings as well as review current journals and prepare to take the registry examination. (2 lecture and 4 lab hours per week) Prerequisite: DSVT 2430 Corequisite: DSVT 2462. [CIP51.0910]

**DSVT 2361****Clinical – DMST, Vascular Technology I  
(3 credits)**

The purpose of this course is to provide education, training, work-based experience, and direct patient care, generally at a clinical site. This will include instruction, supervision, and evaluation of students in the field of non-invasive vascular technology. Emphasis will be placed on hands-on experience to develop peripheral non-invasive vascular techniques used to evaluate the appearance of normal exams utilizing a standard scan protocol. (12 clinical hours per week) Prerequisite: DSVT 1360, Corequisite: DSVT 2430. [CIP51.0910]

**DSVT 2418****Non-Invasive Peripheral Vascular Evaluation  
(4 credits)**

This course is an integration of basic concepts and application of prior knowledge and skills to the understanding and evaluation of peripheral vascular diseases utilizing non-invasive vascular techniques. Emphasis will be placed on venous and arterial diseases of the extremities. (2 lecture and 4 lab hours per week) Prerequisite: DSVT 1300. Corequisite: DSVT 2461. [CIP51.0910]

**DSVT 2430****Non-Invasive Cerebral Vascular Evaluation  
(4 credits)**

This course is a continuation of Vascular Evaluation with emphasis on recognition, evaluation and quantification of cerebrovascular diseases and interventions utilizing duplex ultrasonography, transcranial doppler, and non-imaging techniques used to evaluate the cerebrovascular circulation. (2 lecture and 4 lab hours per week) Prerequisite: DSVT 1300, Corequisite: DSVT 2361. [CIP51.0910]

**DSVT 2461****Clinical – DMST, Vascular Technology II  
(4 credits)**

This course will provide additional clinical education, training, experience, and direct patient care. It will include instruction, supervision, and evaluation of students in the field of peripheral non-invasive vascular technology. Emphasis will be placed on

recognition and evaluation of pathology, broadening and improving existing skills. (16 clinical hours per week) Prerequisite: DSVT 2361, Corequisite: DSVT 2418. [CIP51.0910]

**DSVT 2462****Clinical – DMST, Vascular Technology III  
(4 credits)**

This course will provide advanced clinical education, training, experience, and patient care. It will include instruction, supervision, and evaluation of students in the field of non-invasive vascular technology. Emphasis will be placed on improving identification and quantification of pathology, accuracy, speed and proficiency of student's skills. (16 clinical hours per week) Prerequisite: DSVT 2461, Corequisite: DSVT 2335. [CIP51.0910]

**Drama**

*C. Jay Burton, Department Chairperson*

**DRAM 1220****Theatre Practicum I  
(2 credits)**

This course is an activities course in which the student participates in Theater productions either as an actor or crew member. (6 laboratory hours per week). [CB50.0506.5326]

**DRAM 1221****Theatre Practicum II  
(2 credits)**

This course is an activities course in which the student participates in Theater productions either as an actor or crew member. (6 laboratory hours per week). [CB50.0506.5326]

**DRAM 1310****Introduction to Theater  
(3 credits)**

This course is the study of the principles of drama and the development of the Theater as an art as evidenced through study of areas of productions past and present. (3 lecture and 2 laboratory hours per week). Prerequisite: READ 0309 . [CB50.0501.5126]

**DRAM 1322****Stage Movement and Dance  
(3 credits)**

This course provides instruction and participation in stage movement and beginning dance. (1 lecture and 3 laboratory hours per week). [CB50.0506.5426]

**DRAM 1330****Stagecraft I  
(3 credits)**

This course is a study of the basics for working in the areas of construction, properties, and sets. (2 lecture and 4 laboratory hours per week). Prerequisite: READ 0309. [CB50.0502.5126]

**DRAM 1341**  
**Stage Makeup**  
**(3 credits)**

This course provides a survey of the reasons for stage makeup and the types of makeup available. It includes principles for defining makeup for characters in a play and intensive practical application. (2 lecture and 4 laboratory hours per week). Prerequisite: READ 0309. [CB50.0502.5226]

**DRAM 1351**  
**Acting I**  
**(3 credits)**

This course is a study of the basic techniques of acting. Included in the course are relaxation, concentration, objectives and intentions, scene work, and improvisational acting. (2 lecture and 4 laboratory hours per week). Prerequisites: READ 0309. [CB50.0506.5126]

**DRAM 1352**  
**Acting II**  
**(3 credits)**

This course is a study of script analysis, character analysis, characterization, and situation. (2 lecture and 4 laboratory hours per week). [CB50.0506.5126]

**DRAM 2120**  
**Theatre Practicum III**  
**(1 credit)**

This course is an activities course in which the student participates in Theater productions either as actor or crew member. (6 laboratory hours per week). [CB50.0506.5326]

**DRAM 2121**  
**Theatre Practicum IV**  
**(1 credits)**

This course is an activities course in which the student participates in Theater productions either as actor or crew member. (6 laboratory hours per week). [CB50.0506.5326]

**DRAM 2331**  
**Stagecraft II**  
**(3 credits)**

This course is a study of the basic concepts of stage lighting, including principles and practice. The course also presents the basic principles of lighting design. (3 lecture and 3 laboratory hours per week). Prerequisite: READ 0309. [CB50.0502.5126]

**DRAM 2336**  
**Voice for the Theatre**  
**(3 credits)**

This course is a study of the necessary development of the voice for use for the stage. The course includes voice development, placement, projection, and diction. (3 lecture hours per week). Prerequisite: READ 0309. [CB50.0506.5226]

**DRAM 2361**  
**History of the Theatre I**  
**(3 credits)**

This course is an historical investigation of the theatre and dramatic literature from ancient Greece through 1800. (3 lecture hours per week). Prerequisites: READ 0309 and ENGL 0309. [CB50.0505.5126]

**DRAM 2362**  
**History of the Theatre II**  
**(3 credits)**

This course is an historical investigation of the theatre and dramatic literature from 1800 to the present. (3 lecture hours per week). Prerequisites: READ 0309, ENGL0309. [CB50.0505.5126]

**DRAM 2366**  
**Development of the Motion Picture**  
**(3 credits)**

Emphasis in this course is on the analysis of the visual and aural aspects of selected motion pictures. Dramatic aspects of narrative films, historical growth, and sociological impact of film as an art will also be studied. (3 lecture hours per week). Prerequisites: READ 0309 [CB50.0602.5126]

**Economics**

*Kevin Jefferies, Department Chairperson*  
*Tim Reynolds, Gregory Roof*

**ECON 2301**  
**Principles of Economics I**  
**(3 credits)**

An introduction to the macro-economics of a modern industrial society. This course is an analysis of economic aggregates: inflation, unemployment, economic growth, and the distribution of income (including current policies and problems). The course presents problems of fiscal and monetary policy and places primary emphasis on critical understanding of the economy's ability to meet the needs of its people participating as workers, consumers, and citizens. (3 lecture hours per week). Prerequisites: READ 0310 and ENGL 0310. [CB45.0601.5125]

**ECON 2302**  
**Principles of Economics II**  
**(3 credits)**

An introduction to the micro-economics of a modern industrial society. This course provides a study of supply-demand relationships, economics of the firm and resource allocation (price and output determination, pure competition, monopolistic competition, oligopoly, and monopoly), economic problems (business, agriculture, labor, etc.), and international economic relations. (3 lecture hours per week). Prerequisites: READ 0310 and ENGL 0310. [CB45.0601.5125]

**Electroneurodiagnostics**  
**(END)**

*Stacy Pedigo, Department Chair*

**ENDT 1345**  
**Allied Electronics & Instrumentation**  
**(3 credits)**

Theory & application of electrical concepts, recording techniques, data analysis, and descriptions. Includes electronics & instrumentation associated with the conventional electroencephalograph such as the power supply, contribution of electrodes, differential amplifier concepts, filters (low frequency, high frequency and 60-Hz filters), the writer unit, electrical output, electrical safety, and standards for clinical electroencephalographs. Also covers ambulatory monitoring & digital electroencephalography. (2 lecture hours & 2 lab hours per week) [CIP 51.0903]

**ENDT 1350**  
**Electroencephalography**  
**(3 credits)**

The field of electroencephalography (EEG) and its use in medicine & surgery. Emphasizes patient hookup, taking histories, careful handling of the patient, and reviewing normal and abnormal brainwaves, identifying artifacts, EEG instrumentation, pattern recognition, and sleep recordings. Includes examination of EEG findings in neurological disease and introduces special EEG procedures. (2 lecture hours & 2 lab hours per week) [CIP 51.0903]

**ENDT 1463**  
**Electroneurodiagnostics Clinical I**  
**(4 credits)**

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. (20 clinical hours per week) [CIP 51.0903]

**ENDT 2210**  
**Evoked Potentials**  
**(2 credits)**

Evoked potentials (EP) instrumentation, EP history, signal averaging, statistics, A/D converter, amplifiers, filters & simulators. Includes recording evoked potentials from volunteers & observing the effect of different variables. Emphasizes somatosensory, visual & brainstem auditory evoked responses & provides practical application & evaluation of EP data. (2 lecture hours per week) [CIP 51.0903]

**ENDT 2215**  
**Nerve Conduction Studies**  
**(2 credits)**

Electrodiagnostics, principles of nerve conduction studies and methods designed to assess neuromuscular transmission. Includes conventional & single-fiber electromyography & methods designed for reaching less accessible regions of the nervous system. (2 lecture hours per week) [CIP 51.0903]

**ENDT 2320**

**Electroneurodiagnostics Technology I**

**(3 credits)**

Electroneurodiagnostics & normal functional neuroanatomy & physiology. Explores abnormal functional neuroanatomy & physiological conditions & correlates. Includes an examination of electroencephalographic signs of cerebral disorders, specific neurological diseases entities & the integration of electroencephalography patterns for cerebral disorders & diagnosis. (2 lecture hours & 2 lab hours per week) [CIP 51.0903]

**ENDT 2425**

**Electroneurodiagnostics Technology II**

**(4 credits)**

Electroneurodiagnostics & normal & abnormal functional neuroanatomy & physiology. (3 lecture & 2 lab hours per week) [CIP 51.0903]

**ENDT 2463**

**Electroneurodiagnostics Clinical II**

**(4 credits)**

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. (14 clinical hours per week) [CIP 51.0903]

**ENDT 2561**

**Electroneurodiagnostics Clinical III**

**(5 credits)**

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. (30 clinical hours per week) [CIP 51.0903]

**Emergency Medical Technology**

*Douglas Stevenson, Department Chairperson*

*Patty Stemmer, Instructor*

*David Suffian, MD Medical Director*

**EMSP 1160**

**Emergency Medical Technician Basic - Clinical**  
**(1 credit)**

A course of instruction that provides detailed education, training, and work-based experience in the hospital and ambulance arena. Clinical experiences are unpaid external learning experiences. (6 hours per week external experience). Co-Requisites: American Heart Association or Red Cross CPR certification. Enrollment in EMSP 1501. [CIP51.0904]

**EMSP 1166**

**EMS Practicum I**  
**(1 credit)**

A course of instruction that provides detailed education, training, and work-based experience in various ambulance services. All EMS practicum experiences are unpaid external learning experiences. (7 hours per week external experience). Prerequisite: Completion of EMSP 1501/ EMSP 1160. Co-Requisite: Enrollment in EMSP 1338, EMSP 1355, EMSP 1356, EMSP 1261. [CIP51.0904]

**EMSP 1261**

**Paramedic Clinical I**

**(2 credits)**

A course of instruction that provides detailed education, training, and work-based experience in the hospital clinical areas. Clinical experiences are unpaid external learning experiences. (1 lecture hours & 6 lab hours per week) Prerequisite: Completion of EMSP 1501/ EMSP 1160. Co-Requisite: Enrollment in EMSP 1338, EMSP 1356, EMSP 1355, EMSP 1166. [CIP51.0904]

**EMSP 1338**

**Introduction to Advanced Practice**

**(3 credits)**

An exploration of the foundations necessary for mastery of the advanced topics or prehospital care. (3 hours of lecture and 1 hour of laboratory hours per week). Prerequisite: Completion of EMSP 1501/ EMSP 1160. Co-Requisite: Enrollment in EMSP 1356, EMSP 1355, EMSP 1261, EMSP 1166. [CIP51.0904]

**EMSP 1355**

**Trauma Management**

**(3 credits)**

A detailed study of the knowledge and skills necessary to reach competence in the assessment and management of patients with traumatic injuries. (2 hours of lecture and 3 hour of laboratory per week). Prerequisite: Completion of EMSP 1501/ EMSP 1160. Co-Requisite: Enrollment in EMSP 1338, EMSP 1356, EMSP 1261, EMSP 1166. [CIP51.0904]

**EMSP 1356**

**Patient Assessment and Airway Management**

**(3 credits)**

A detailed study of the knowledge and skills required to reach competency in performing patient assessment and airway management. (2 hours of lecture and 2 hours of laboratory per week). Prerequisite: Completion of EMSP 1501/ EMSP 1160. Co-Requisite: Enrollment in EMSP 1338, EMSP 1355, EMSP 1261, EMSP 1166. [CIP51.0904]

**EMSP 1391**

**Special Topics in EMS**

**(3 credits)**

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. (2 hours lecture, and 2 hours laboratory per week). [CIP51.0904]

**EMSP 1501**

**Emergency Medical Technician - Basic**

**(5 credits)**

Introduction to the level of Emergency Medical Technician (EMT) - Basic. Includes all the skills necessary to provide emergency medical care at a basic life support level with an ambulance service or other specialized service. (5 lecture and 6 laboratory hours per week). Co-Requisites: American Heart Association or Red Cross CPR certification. Enrollment in EMSP 1160. [CIP51.0904]

**EMSP 2160**

**Paramedic Clinical II**

**(1 credit)**

A course of instruction that provides detailed education, training, and work-based experience in the hospital emphasizing cardiovascular care. Clinical experiences are unpaid external learning experiences. (6 hours per week external experience). Prerequisite: Completion of EMSP 1501/ EMSP 1160/ EMSP 1338/ EMSP 1356/ EMSP 1355/ EMSP 1261/ EMSP 1166. Co-Requisite: Enrollment in EMSP 2248, EMSP 2338, EMSP 2444. [CIP51.0904]

**EMSP 2166**

**Paramedic Practicum II**

**(1 credit)**

A course of instruction that provides detailed education, training, and work-based experience in the pre-hospital area. Clinical experiences are unpaid external learning experiences. (9 hours per week external experience). Prerequisite: Completion of EMSP 1501/ EMSP 1160/ EMSP 1338/ EMSP 1356/ EMSP 1355/ EMSP 1261/ EMSP 1166/ EMSP 2444/ EMSP 2248/ EMSP2338/ EMSP 2160/ EMSP 2434/ EMSP 2261. Co-Requisite: Enrollment in EMSP 2330/ EMSP 2243. [CIP51.0904]

**EMSP 2243**

**Assessment Based Management**

**(2 credits)**

The capstone course of the EMSP program. Designed to provide for teaching and evaluating comprehensive, assessment-based patient care management. (1 hour of lecture and 3 hours of laboratory per week). Prerequisite: Completion of EMSP 1501/ EMSP 1160/ EMSP 1338/ EMSP 1356/ EMSP 1355/ EMSP 1261/ EMSP 1166/ EMSP 2444/ EMSP 2248/ EMSP2338 /EMSP 2160/ EMSP 2434/ EMSP 2261. Co-Requisite: Enrollment in EMSP 2330/ EMSP 2166. [CIP51.0904]

**EMSP 2248**

**Emergency Pharmacology**

**(2 credits)**

A comprehensive course covering all aspects of the utilization of medications in treating emergency situations. Course is designed to complement Cardiology, Special Populations, and Medical Emergency courses. (2 hours of lecture hours and 1 hour of laboratory per week). Prerequisite: Completion of EMSP 1501/ EMSP 1160/ EMSP 1338/ EMSP 1356/ EMSP 1355/EMSP 1261/ EMSP 1166. Co-Requisite: Enrollment in EMSP 2444, EMSP 2338, EMSP 2160. [CIP51.0904]

**EMSP 2261**

**Paramedic Clinical III**

**(2 credits)**

A course of instruction that provides detailed education, training, and work-based experience in the hospital areas specializing in the care of patients with medical emergencies.. Clinical experiences are unpaid external learning experiences. (1 lecture hour & 8 clinical hours per week) Prerequisite: Completion of EMSP 1501/ EMSP 1160/ EMSP 1338/ EMSP 1356/ EMSP 1355/ EMSP 1261/ EMSP 1166/ EMSP 2444/ EMSP 2248/ EMSP2338/ EMSP 2160. Co-Requisite: Enrollment in EMSP 2434. [CIP51.0904]

**EMSP 2300****Methods of Teaching - Emergency Medical Services****(3 credits)**

Instruction in teaching methodology for instructors of emergency medical services. (3 hours of lecture per week). Sponsorship by a Texas State Department of Health Services EMS Coordinator required. [CIP51.0904]

**EMSP 2330****Special Populations****(3 credits)**

A detailed study of the knowledge and skills necessary to reach competence in the assessment and management of ill or injured patients in non-traditional populations. (2 hours of lecture and 2 hours of laboratory per week). Prerequisite: Completion of EMSP 1501/ EMSP 1160/ EMSP 1338/ EMSP 1356/ EMSP 1355/EMSP 1261/ EMSP 1166/ EMSP 2444/ EMSP 2248/ EMSP 2338/EMSP 2160/ EMSP 2434/ EMSP 2261. Co-Requisite: EMSP 2243/ EMSP 2166. [CIP51.0904]

**EMSP 2338****EMS Operations****(3 credits)**

A detailed study of the knowledge and skills necessary to reach competence to safely manage the scene of an emergency. (3 hours of lecture per week). Prerequisite: Completion of EMSP 1501/ EMSP 1160/ EMSP 1338/ EMSP 1356/ EMSP 1355/ EMSP 1261/ EMSP 1166. Co-Requisite: EMSP 2444, EMSP 2248, EMSP 2160. [CIP51.0904]

**EMSP 2352****EMS Research****(3 credits)**

Primary and/or secondary research in current and emerging issues in EMS. Basic research principles, scientific inquiry, and interpretation of professional literature are emphasized. (3 hours of lecture per week). [CIP51.0904]

**EMSP 2359****EMS Supervision/ Management****(3 credits)**

Instruction, literary review, group discussions, and case study on topics pertinent to the emergency medical service (EMS) supervisor or manager. (3 lecture and 1 lab hour per week). [CIP51.0904]

**EMSP 2434****Medical Emergencies****(4 credits)**

A detailed study of the knowledge and skills necessary to reach competence in the assessment and management of patients with medical emergencies. (3 hours of lecture and 3 hours of laboratory per week). Prerequisite: Completion of EMSP 1501/ EMSP 1160/ EMSP 1338/ EMSP 1356/ EMSP 1355/ EMSP 1261/ EMSP 1166/ EMSP 2444/ EMSP 2248/ EMSP2338/ EMSP 2160. Co-Requisite: Enrollment in EMSP 2261 [CIP51.0904]

**EMSP 2444****Cardiology****(4 credits)**

A detailed study of the knowledge and skills necessary to reach competence in the assessment and management of patients with cardiac emergencies. (3 hours of lecture and 3 hours of laboratory and per week). Prerequisite: Completion of EMSP 1501/ EMSP 1160/ EMSP 1338/ EMSP 1356/ EMSP 1355/ EMSP 1261/ EMSP 1166.

Co-Requisite: EMSP 2248, EMSP 2338, EMSP 2160. [CIP51.0904]

**EMSP 2458****Critical Care Paramedic****(4 credits)**

Prepares healthcare personnel to function as members of a critical care transport team. ( lecture and 6 lab hours per week).. Prerequisite: Completion of EMSP 1501/ EMSP 1160/ EMSP 1338/ EMSP 1356/ EMSP 1355/ EMSP 1261/ EMSP 1166/ EMSP 2444/ EMSP 2248/ EMSP2338/ EMSP 2160/ EMSP 2434/ EMSP 2261/ EMSP 2330/ EMSP 2243/ EMSP 2166 Or current Texas State Department of Health Services Paramedic certification or Paramedic Licensure. [CIP51.0904]

**HITT 1305****Medical Terminology****(3 credits)**

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. (3 lecture hours per week). [CIP51.0707]

**English**

*Thomas Parker, Department Chairperson  
James Creel, Ann Guess, Linda Matteson,  
Brietta Perez, Ashley Salter*

**NOTE:** *The basics of writing are taught in ENGL 0309 and ENGL 0310. These courses benefit students needing additional preparation for college-level work and those desiring only to improve their writing skills.*

*One or both of these course may be required by state law for students whose scores on either the local placement test or the TASP fall below the established cutoff levels.*

**ENGL 0309****Developmental Writing I****(3 credits)**

Beginning with a study of basic grammar, this course concentrates on correct sentence patterns and gives some attention to paragraph writing. (3 lecture hours and 1 laboratory hour per week). [CB32.0108.5312]

**ENGL 0310****Developmental Writing II****(3 credits)**

Extensive practice in writing paragraphs and short papers follows a review of grammar.Prerequisite: ENGL 0309 and READ 0310 (3 lecture hours and 1 laboratory hour per week). [CB32.0108.5312]

**ENGL 1301****Composition I****(3 credits)**

This standard course focuses on correct and effective writing through a review of grammar and progression of written assignments. Reading assignments in the short story provide topics for required themes. (3 lecture hours per week). Prerequisite: ENGL 0310 & READ 0310 or passing score on THEA or equivalent test. [CB23.1301.5112]

**ENGL 1302****Composition II****(3 credits)**

This course is a continuation of ENGL 1301. There is more intensive practice in theme writing, including a research paper, and reading assignments include drama and poetry as well as fiction. (3 lecture hours per week). Prerequisite: ENGL 1301. [CB23.1301.5112]

*NOTE: To fulfill the sophomore English requirements of ACC programs of study, the English Department recommends either ENGL 2332-2333 or 2322-2323, taken in sequence. However, a combination of one course from Group A and one from Group B, taken in any order, is acceptable. Group A: 2332 or 2322. Group B: 2333 or 2323 or 2327 or 2328. Under appropriate circumstances, ENGL 2311 may be allowed as one of the two required sophomore courses.*

**ENGL 2307****Creative Writing****(3 credits)**

Designed for students interested in writing poetry, fiction, or nonfiction, this humanities elective course presents a study of literary techniques in contemporary published examples, but it emphasizes writing and revising original works. (3 lecture hours per week). Prerequisite: ENGL 1302. [CB23.1302.5112]

**ENGL 2311****Technical Communication****(3 credits)**

Designed primarily for students working toward a four-year science or technology degree, this course stresses accurate and effective writing in formal reports and other professional communication forms. Brief attention is also given to the oral report. (3 lecture hours per week). [CB23.1101.5112]

**ENGL 2322****Survey of English Literature I****(3 credits)**

This course covers British literature from its beginning to the eighteenth century. Collateral reading and reports are required. (3 lecture hours per week). Prerequisite: ENGL 1302. [CB23.1404.5112]

**ENGL 2323****Survey of English Literature II  
(3 credits)**

As a continuation of ENGL 2322, this course is a study of British literature from the Romantic Period to the present. Collateral reading and reports are required. (3 lecture hours per week). Prerequisite: ENGL 1302. [CB23.1404.5112]

**ENGL 2327****Survey of American Literature I  
(3 credits)**

Selected significant works of American Literature from the pre-colonial era through 1865. (3 lecture hours per week) Prerequisite: ENGL 1302 [CB 23.1402.5112]

**ENGL 2328****Survey of American Literature II  
(3 credits)**

Selected significant works of American Literature from 1865 to the present. (3 lecture hours per week) Prerequisite: ENGL 1302 [CB 23.1402.5112]

**ENGL 2332****Survey of Literature I  
(3 credits)**

Readings in world masterpieces dating from ancient times to the eighteenth century provide topics for various kinds of written analysis. Collateral reading and reports are required. (3 lecture hours per week). Prerequisite: ENGL 1302. [CB16.0104.5213]

**ENGL 2333****Survey of Literature II  
(3 credits)**

This course is a continuation of ENGL 2332. World literature ranging from seventeenth-century Europe to twentieth-century America is the subject area of reading and writing assignments. Collateral reading and reports are required. (3 lecture hours per week). Prerequisite: ENGL 1302. [CB16.0104.5213]

**English for Speakers of  
Other Languages****ESOL 0300****Reading and Vocabulary for Non-Native Speakers  
(3 credits)**

Develop reading fluency and vocabulary in speakers of languages other than English and prepare them to function in an English speaking society. (3 lecture hours per week). [CB32.0108.5612]

**ESOL 0306****Oral Communication  
(3 credits)**

Develop listening and speaking skills, preparing students to function in an English speaking society. (3 lecture hours per week). [CB32.0108.5512]

**French**

*Amalia D. Parra, Department Chairperson*

*NOTE: All foreign language classes aim to integrate acquisition with culture, cultural comparisons, connections to other disciplines, and participation in other language communities. Students with two or more years of high school French are urged to take the departmental online placement test to determine at which level to begin French.*

**FREN 1411****Elementary French I  
(4 credits)**

Fundamental skills in listening comprehension, speaking, reading, and writing. Includes basic vocabulary, grammatical structures, and culture. (3 lecture and 2 lab hours per week) (3 lecture and 2 laboratory hours per week). [CB16.0901.5113]

**FREN 1412****Elementary French II  
(4 credits)**

Fundamental skills in listening comprehension, speaking, reading, and writing. Includes basic vocabulary, grammatical structures, and culture. (3 lecture and 2 lab hours per week) Prerequisite: FREN 1411 with grade of C or above or the departmental online placement test. [CB 16.0901.5113]

**FREN 2306****Intermediate French Conversation  
(3 credits)**

Basic practice in comprehension and production of the spoken language. (3 lecture hours per week) [CB16.0901.5413]

**FREN 2311****Intermediate French I  
(3 credits)**

Review and application of skills in listening comprehension, speaking, reading, and writing. Emphasizes conversation, vocabulary acquisition, reading, composition, and culture. (3 lecture and 1 lab hour per week) Prerequisite: FREN 1412 or the departmental online placement test. [CB16.0901.5213]

**FREN 2312****Intermediate French II  
(3 credits)**

Review and application of skills in listening comprehension, speaking, reading, and writing. Emphasizes conversation, vocabulary acquisition, reading, composition, and culture. (3 lecture and 1 lab hour per week) Prerequisite: FREN 2311 or the departmental online placement test. [CB16.0901.5213]

**Geography**

*Christopher Chance, Department Chairperson  
Johanna Hume*

**GEOG 1301****Physical Geography  
(3 credits)**

This course is designed to enhance student understanding of the physical and human elements that have shaped the present physical environments and cultures of the world. Emphasis is placed on scientific principles and explanations underlying the distribution of tectonic activities and landforms, elements and factors of local and world climates, population, economic activities, cultures, urban landscapes, and political systems. The important role of maps in geography is also discussed. (3 lecture hours per week). Prerequisites: READ 0310 and ENGL 0310. [CB45.0701.5125]

**GEOG 1303****World Regional Geography  
(3 credits)**

A survey of the world's major geographic regions, with emphasis on intra-regional and inter-regional similarities and differences in climates, land and water resources, population distribution, and the extent of resource utilization. Physical and human factors that enhance, hinder, or threaten economic development and living conditions in the respective regions are also stressed. (3 lecture hours per week). Prerequisites: READ 0310, ENGL 0310 [CB45.0701.5325]

**GEOG 2389****Academic Cooperative  
(3 credits)**

An instructional program designed to integrate on-campus study with practical hands-on experience in geography. In conjunction with class seminars, the individual student will set specific goals and objectives in the study of human social behavior and/or social institutions. (3 lecture hours per week) [45.0101.5125]

**Geology**

*Dora Devery, Department Chairperson*

**GEOG 1301****Investigating the Earth, Sea and Sky  
(3 credits)**

This is a survey course to introduce non-majors to the solid Earth, the oceans, the atmosphere, and the Earth's neighbors in space. (3 lecture hours per week). Prerequisite: READ 0310. [CB40.0601.5103]

**GEOG 1303****Essentials of Physical Geology  
(3 credits)**

An introductory class designed for non-majors to study the composition, internal structure, and physical processes of the earth. (3 lecture hours per week). Prerequisite: READ 0310. [CB40.0601.5403]

**GEOL 1401**  
**Earth Science**  
**(4 credits)**

Topics covered in this course include geology, oceanography, meteorology and astronomy. The course integrates information about the earth and how it works. Emphasis is placed on the study of the structure and composition of the earth, natural hazards; such as tornadoes and hurricanes, as well as discussions about the solar system. This course is particularly well suited for students planning a career teaching in the elementary grades. (3 lecture and 3 laboratory hours per week). Prerequisite: READ 0310. [CB40.0601.5103]

**GEOL 1403**  
**Physical Geology**  
**(4 credits)**

This course provides an introduction to the study of rocks, minerals and physical processes that modify the surface of the earth, and it gives special attention to the practical aspects of geology in society, such as mineral, energy, and water resources, volcanism, and geologic factors that influence the environment. (3 lecture and 3 laboratory hours per week). Prerequisite: READ 0310. [CB40.0601.5403]

**GEOL 1404**  
**Historical Geology**  
**(4 credits)**

This course is a study of the history of the Earth as recorded by rocks and fossils. Topics covered in the course include: plate tectonics, determining sequence of events, and the identification of fossils. Special emphasis is placed on the study of sedimentary rocks and geologic maps. Prerequisite: READ 0310. [CB40.0601.5403]

**GEOL 1405**  
**Environmental Geology**  
**(4 credits)**

Topics covered in this course include geologic hazards, energy resources, waste disposal, air and water pollution, medical geology, environmental law as well as land use planning. The emphasis is on geologic processes and how they influence human activities. (3 lecture and 3 lab hours per week). Prerequisite: READ 0310. [CB03.0103.5301]

**GEOL 1445**  
**Oceanography**  
**(4 credits)**

This course is an online lab science course (both lecture and lab are offered online). It is designed to introduce students to the physical, geological, and chemical characteristics of the Earth's oceans. Topics covered include: plate tectonics and ocean basin formation, topographic features of the ocean floors, properties of ocean water, as well as tides, waves, and ocean currents. This course also looks at the interaction between marine organisms and the marine environment as well as the interaction between land and sea and the interaction between the atmosphere and the sea. Prerequisite: READ 0310 and MATH 0312. [CB40.0601.5103]

**GEOL 1447**  
**Meteorology**  
**(4 credits)**

The study of the atmosphere and weather are the focus of this online, lab science course (both lecture and lab are offered online). Topics include: composition and structure of the atmosphere, solar and terrestrial radiation, air pressure, humidity, clouds, precipitation, thunderstorms, tornadoes, hurricanes, and climate change. Prerequisite: READ 0310 and MATH 0312. [CB40.0601.5103]

**German**

*Amalia D. Parra, Department Chairperson*

*NOTE: Students with two or more years of high school German are urged to take a placement examination to determine at which level to begin German.*

**GERM 1411**  
**Elementary German I**  
**(4 credits)**

Fundamental skills in listening comprehension, speaking, reading, and writing. Includes basic vocabulary, grammatical structures, and culture. (3 lecture and 2 lab hours per week) [CB16.0501.5113]

**GERM 1412**  
**Elementary German II**  
**(4 credits)**

Fundamental skills in listening comprehension, speaking, reading, and writing. Includes basic vocabulary, grammatical structures, and culture. Prerequisite: GERM 1411 or an appropriate placement test. (3 lecture and 2 lab hours per week) [CB16.0501.5113]

**GERM 2311**  
**Intermediate German I**  
**(3 credits)**

Review and application of skills in listening comprehension, speaking, reading, and writing. Emphasizes conversation, vocabulary acquisition, reading, composition, and culture. (3 lecture and 1 lab hour per week) Prerequisites: GERM 1412 or an appropriate placement test. [CB 16.0501.5213]

**GERM 2312**  
**Intermediate German II**  
**(3 credits)**

Review and application of skills in listening comprehension, speaking, reading, and writing. Emphasizes conversation, vocabulary acquisition, reading, composition, and culture. (3 lecture and 1 lab hour per week) Prerequisites: GERM 2311 or an appropriate placement test. [CB16.0501.5213]

**Government**

*Kevin Jefferies, Department Chairperson*  
*Tim Reynolds, Gregory Roof*

**GOVT 2301**  
**American National & State Governments I**  
**(3 credits)**

This course surveys the origin and development of the federal system and includes an analysis of the federal constitution and various state constitutions, particularly the Texas constitution. The course focuses on federal, state and interstate relations, Texas state government, and citizenship in a modern democratic society. (3 lecture hours per week). Prerequisites: READ 0310 and ENGL 0310. [CB45.1002.5125]

**GOVT 2302**  
**American National and State Governments II**  
**(3 credits)**

The primary focus of this course is the federal system. Particular emphasis is placed on national issues and the executive, judicial and legislative branches of the federal government. The course also surveys the functions and services of the federal system and those of the various state governments, including the Texas state government. Prerequisites: READ 0310 and ENGL 0310. [CB45.1002.5125]

**History**

*Christopher Chance, Department Chairperson*  
*John Duke, Johanna Hume, Marjorie Nash*

**HIST 1301**  
**The United States to 1877**  
**(3 credits)**

This course surveys United States history from colonial origins through reconstruction, including exploration and colonization of the new world, the American Revolution, westward expansion, the Civil War, and reconstruction. (3 lecture hours per week). Prerequisites: READ 0310 and ENGL 0310. [CB54.0102.5125]

**HIST 1302**  
**The United States Since 1877**  
**(3 credits)**

This course surveys United States history from 1877 to the present. Topics include big business, big labor, the United States as a world power, the Great Depression, and the Cold War. (3 lecture hours per week). Prerequisites: READ 0310 and ENGL 0310. [CB54.0102.5125]

**HIST 2301**  
**Texas History**  
**(3 credits)**

This course surveys social, economic and political developments in Texas from the arrival of the first Native Americans in Texas to present. (3 lecture hours per week). Prerequisites: READ 0310 and ENGL 0310. [CB54.0102.5225]

*\*Texas law stipulates that three hours in Texas history may be applied toward satisfying the United States history requirement.*

**HIST 2311**  
**Western Civilization I**  
**(3 credits)**

This course surveys the primary political, social, intellectual, and religious developments of near eastern and western human societies with emphasis on the Mesopotamian, Egyptian, Greek, and Roman civilizations; the development of Judaism, Christianity, and Islam; the Byzantine empire; feudalism in eastern and western Europe; the Renaissance and the Reformation; national monarchies and state building in the early modern period; and the Scientific Revolution. Prerequisites: READ 0310 and ENGL 0310. (3 lecture hours per week) [CB 54.0101.5425]

**HIST 2312**  
**Western Civilization II**  
**(3 credits)**

This course surveys the primary political, social, intellectual, and religious developments in western human societies from the 17th century to the 20th century. Particular emphasis will be placed on the trans-Atlantic world, absolutism and state building, the Enlightenment, the period of revolutions, ideology, the rise of nation-states, and the wars of the 20th century. READ 0310 and ENGL 0310. (3 lecture hours per week) [CB54.0101.5425]

**HIST 2312**  
**Western Civilization II**  
**(3 credits)**

This course surveys the primary political, social, intellectual, and religious developments in western human societies from the 17th century to the 20th century. Particular emphasis will be placed on the trans-Atlantic world, absolutism and state building, the Enlightenment, the period of revolutions, ideology, the rise of nation-states, and the wars of the 20th century. (3 lecture hours per week) Prerequisites: READ 0310 and ENGL 0310 [CB54.0101.5425]

**HIST 2313**  
**History of England I**  
**(3 credits)**

Survey of the political, social, economic, military, cultural, and intellectual development of England from prehistory to 1603. (3 lecture hours per week) [CB54.0101.5425]

**HIST 2314**  
**History of England II**  
**(3 credits)**

Survey of the political, social, economic, military, cultural, and intellectual development of England from prehistory to 1603 to the present. (3 lecture hours per week) [CB 54.0101.5425]

**HIST 2321**  
**World Civilizations I**  
**(3 credits)**

A survey of the political, social, cultural, intellectual, diplomatic, technological, and economic development of civilizations in Africa, Asia, Europe and the New World to 1500. Particular attention is given to intersections between cultures along with a comparative analysis of their unique historical trajectories. (3 lecture hours per week). Prerequisites: READ 0310, ENGL 0310 [CB54.0101.5325]

**HIST 2322**  
**World Civilizations II**  
**(3 credits)**

A survey of the political, social, cultural, intellectual, diplomatic, technological, and economic development of civilizations in Africa, Asia, Europe and the New World from the 16th to the 20th centuries. Particular emphasis is placed on the rise of the nation-state and the West as a hegemonic power and its impact on the balance of civilization. (3 lecture hours per week). Prerequisites: READ 0310, ENGL 0310. [CB54.0101.5325]

**HIST 2389**  
**Academic Cooperative**  
**(3 credits)**

An instructional program designed to integrate on-campus study with practical hands-on experience in history. (3 lecture hours per week) [CB54.0101.5425]

**Horticulture**

*Dwight Rhodes, Department Chairperson*

**HORT 1401**  
**Principles of Horticulture**  
**(4 credits)**

This course presents the fundamental principles and practices of structure, growth, development, maintenance, and use of horticultural plants. The course outlines the commercial horticulture industry and occupational opportunities. The laboratory experience provides an introduction to growing, grounds maintenance, planting, and transplanting. (3 lecture and 3 laboratory hours per week). [CB01.0601.5101]

**Humanities**

*Amalia D. Parra, Department Chairperson*

**HUMA 1301**  
**Introduction to Humanities I**  
**(3 credits)**

An interdisciplinary multi-perspective study of the cultural, political, philosophical, and aesthetic factors critical to the formulation of values and the historical development of the individual and of society. This course examines Ancient and Medieval thought and culture through works from Mesopotamia, Egypt, the early Greeks, the Roman Empire, Judaism, Christianity, Islam, the Byzantine Empire, and the Middle Ages. (3 lecture hours per week). Prerequisites: READ 0310 and ENGL 0310. [CB24.0103.5112]

**HUMA1302**  
**Introduction to Humanities II**  
**(3 credits)**

An interdisciplinary multi-perspective study of the cultural, political, philosophical, and aesthetic factors critical to the formulation of values and the historical development of the individual and of society. This semester focuses on works from the Renaissance, the Reformation and counter-Reformation, the Baroque world, the age of Reason and Neoclassicism, the Romantic era, and the twentieth century. (3 lecture hours per week). Prerequisites: READ 0310 and ENGL 0310. [CB24.0103.5112]

**HUMA 1305**  
**Introduction to Mexican-American Studies**  
**(3 credits)**

Introduction to the field of Mexican American/Chicano studies from its inception to the present. Interdisciplinary survey designed to introduce students to the salient cultural, economic, educational, historical, political, and social aspects of the Mexican-American/Chicano experience. (3 lecture hours per week) [CB 05.0203.5125]

**Human Services -  
 Substance Abuse  
 Counseling**  
**(formerly Mental Health)**

*G. E. Carrier, Department Chairperson*

**CMSW 1341**  
**Behavior Modification and Cognitive Disorder**  
**(3 credits)**

In depth study of the theories and principles of behavioral science and skill development in the methods of modifying and controlling behavior. Clinical and personal settings. Emphasis on techniques as managing self behavior. Topics include stimulus controls, shaping, relaxation training, reinforcement scheduling and taken economics. (3 lecture hours per week) (3 lecture and 3 laboratory hours per week) [CIP51.1503]

**DAAC 1304 (see also SOCI 2340)**  
**Pharmacology of Addiction**  
**(3 credits)**

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. (3 lecture hours per week) [CIP51.1501]

**DAAC 1305**  
**Co-occurring Disorders**  
**(3 credits)**

Provides students with an understanding of co-occurring psychiatric and substance abuse disorders and their impact on the individual, family, and community. The course includes an integrated approach to address the issues accompanying the illness. (3 lecture hours per week) [CIP: 51.1502]

**DAAC 1309****Assessment Skill of Alcohol and Other Drug Addictions  
(3 credits)**

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. (3 lecture hours per week) [CIP51.1501]

**DAAC 1311****Counseling Theories  
(3 credits)**

An introduction to major theories of various treatment modalities including Reality Therapy, Psycho-dynamic, Grief Therapy, Client Centered Therapy, Rational Emotive Therapy, cognitive-behavioral approaches such as life skills training, behavior modification, and the introduction to experiential therapies as they relate to detoxification, residential, outpatient, and extended treatment. (3 lecture hours per week) [CIP51.1501]

**DAAC 1317****Basic Counseling Skills  
(3 credits)**

This course is designed to facilitate development of the basic communication skills necessary to develop an effective helping relationship with clients. Includes the utilization of special skills to assist individuals, families, or groups in achieving objectives through exploration of a problem and its ramification of attitudes and feelings; consideration of alternative solutions; and decision making. (3 lecture hours per week) [CIP51.1501]

**DAAC 1319****Introduction to Alcohol and Other Drug Addictions  
(3 credits)**

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. (3 lecture hours per week) [CIP51.1501]

**DAAC 1364****Practicum Substance Abuse/Addiction Counseling  
(3 credits)**

Practical, general workplace training supported by an individualized learning plan developed by the state, college, employer and student. The student will apply concepts and skills associated with substance abuse counseling in a licensed treatment facility. (1 lecture hour and 20 lab hours per week) [CIP: 51.1502]

**DAAC 1380****Cooperative Education I - Alcohol/Drug Abuse Counseling  
(3 credits)**

Career related activities encountered in the student's area of specialization are offered through a cooperative agreement between the college, employer, and student. Under supervision of the college and employer, the student combines

classroom learning with work experience. Directly related to a technical discipline, specific learning objective guide the student through the work experience. This course may be repeated if topics and learning outcomes vary. (1 lecture hour and 20 laboratory hours per week) Prerequisite: DAAC 1364. [CIP51.1501]

**DAAC 1381****Cooperative Education II - Alcohol/Drug Abuse Counseling  
(3 credits)**

Career related activities encountered in the student's area of specialization are offered through a cooperative agreement between the college, employer, and student. Under supervision of the college and employer, the student combines classroom learning with work experience. Directly related to a technical discipline, specific learning objective guide the student through the work experience. This course may be repeated if topics and learning outcomes vary. (1 lecture hour and 20 laboratory hours per week) Prerequisite: DAAC 1380 [CIP51.1501]

**DAAC 1391****Special Topics in Alcohol/Drug Abuse Counseling  
(3 credits)**

This course is a review of the requirements for licensure in addiction counseling examination. The course is also used to work on topics in the area of mental health or addiction studies - example: research/projects/field work. (3 lecture hours per week) [CIP51.1501]

**DAAC 2306****Substance Abuse Prevention  
(3 credits)**

This course focuses on aspects of substance abuse prevention from a public health model. We will identify risk and evidence based prevention strategies within a cultural context, include resources for prevention planning and programs. (3 lecture hours per week) [CIP: 51.1502]

**DAAC 2307****Addicted Family Intervention  
(3 credits)**

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. (3 lecture hours per week) [CIP51.1501]

**DAAC 2341****Counseling Alcohol and Other Drug Addictions  
(3 credits)**

Special skills and techniques in the application of counseling skills for the Alcohol and Other Drug (AOD) client. Development and utilization of advanced treatment planning and management. Includes confidentiality and ethical issues. The course will use the format of the oral licensure process to prepare students for licensure. (3 lecture hours per week) [CIP51.1501]

**DAAC 2343****Current Issues  
(3 credits)**

A study of issues that impact addiction counseling. Special populations, dual diagnosis, ethics, gambling, and infectious diseases associated with addiction counseling will be associated. (3 lecture hours per week) [CIP51.1501]

**DAAC 2354****Dynamics of Group Counseling  
(3 credits)**

Exploration of group counseling skills, techniques, and stages of group development. (3 lecture hours per week) [CIP 51.1501]

**DAAC 2380****Cooperative Education III - Alcohol/Drug Abuse Counseling  
(3 credits)**

Career related activities encountered in the student's area of specialization are offered through a cooperative agreement between the college, employer, and student. Under supervision of the college and employer, the student combines classroom learning with work experience. Directly related to a technical discipline, specific learning objective guide the student through the work experience. This course may be repeated if topics and learning outcomes vary. (1 lecture hour and 20 laboratory hours per week) [CIP51.1501]

**GERS 1301****Introduction to Gerontology  
(3 credits)**

Overview of the social, psychological, and biological changes that accompany aging and an overview of the implications of these changes for the individual, as well as for the larger society. (3 lecture hours per week) [CIP30.1101]

**PMHS 1380****Cooperative Education I - Psychiatric/Mental Health Services Technician  
(3 credits)**

Career related activities encountered in the student's area of specialization are offered through a cooperative agreement between the college, employer, and student. Under supervision of the college and employer, the student combines classroom learning with work experience. Directly related to a technical discipline, specific learning objective guide the student through the work experience. This course may be repeated if topics and learning outcomes vary. (1 lecture hour and 20 laboratory hours per week) [CIP51.1502]

**PMHS 1381****Cooperative Education II - Psychiatric/Mental Health Services Technician  
(3 credits)**

Career related activities encountered in the student's area of specialization are offered through a cooperative agreement between the college, employer, and student. Under supervision of the college and employer, the student combines classroom learning with work experience. Directly related to a technical discipline, specific learning objective guide the student through the work experience. This course may be repeated if topics and learning outcomes vary. (1 lecture hour and 20 laboratory hours per week) Prerequisite: DAAC 1380. [CIP51.1502]

**PMHS 1391****Special Topics in Psychiatric/Mental Health Services Technician****(3 credits)**

This course will examine the management of psychological technicians and review the duties of training required. A variety of mental health settings, such as mental retardation, mental illness and dual diagnosis units will be discussed. Residential and non-residential settings will be reviewed in terms of training requirements and employment opportunities. (3 lecture hours per week) [CIP51.1502]

**PMHS 2380****Cooperative Education III - Psychiatric/Mental Health Services Technician****(3 credits)**

Career related activities encountered in the student's area of specialization are offered through a cooperative agreement between the college, employer, and student. Under supervision of the college and employer, the student combines classroom learning with work experience. Directly related to a technical discipline, specific learning objective guide the student through the work experience. This course may be repeated if topics and learning outcomes vary. (1 lecture hour and 20 laboratory hours per week) Prerequisite: DAAC 1381 [CIP51.1502]

**RECT 1301****Introduction to Therapeutic Recreation****(3 credits)**

Introduction to the value, history, philosophy, terminology, process, and outcomes of therapeutic recreation. Emphasis on identification of client groups, leisure activities, application of therapeutic recreation in various human services settings, and professional development and career opportunities. (3 lecture hours per week) [CIP51.2309]

**SCWK 1313****Introduction to Social Work****(3 credits)**

An overview of the social work profession and introduction to the terms, concepts, people, and critical events that have shaped the profession. We will examine why individuals enter the helping professions, apply the code of ethics to case work skills, evaluate the impact of social service delivery, discuss case management related to the needs of a culturally diverse society, identify community resources to meet various client needs and learn the role of advocacy for individuals who cannot advocate for themselves. (3 lecture hours per week) [CIP: 44.0701]

**SCWK 1321****Orientation to Social Services****(3 credits)**

Introduction to the basic concepts of social welfare, insurance, and service programs and practices. Topics include historical development, social and legal as well as clinical issues in the helping professions. Methods of treatment and services will be discussed for addicted persons and persons with mental illness or mental retardation. (Equates to PMHS 1301) (3 lecture hours per week) [CIP44.0701]

**Industrial Design Technology****(formerly Drafting)**

*James Langley, Department Chairperson  
Lupe Gonzales*

**ARCE 1452****Structural Drafting****(4 Credits)**

A study of structural systems including concrete foundations and frames, wood framing and trusses, and structural steel framing systems; Includes detailing of concrete, wood, and steel to meet industry standards including the American Institute of Steel Construction and The American Concrete Institute. Identify components of structural systems; use reference materials; produce drawings for concrete, wood, and steel framing systems; draw design details and connections for framing components; and draw column and beam details for manufacture and assembly utilizing various fastening methods. (2 Lecture and 6 Laboratory hours per week) Prerequisites: DFTG 2419 [CIP04.0901]

**ARCE 2452****Mechanical and Electrical systems****(4 Credits)**

The properties of building materials (assemblies), specifications, codes, vendor references, and uses of mechanical, plumbing, conveying, and electrical systems as they relate to architecture for residential and commercial construction. Perform mechanical/electrical/plumbing (MEP) calculations; select MEP components; interpret codes and specifications; and produce MEP drawings. (2 Lecture and 6 Laboratory hours per week) Prerequisites: DFTG 2428 [CIP04.0901]

**DFTG 1405****Technical Drafting****(4 credits)**

Course Description: Introduction to the principles of drafting to include terminology and fundamentals, including size and shape descriptions, projection methods, geometric construction, sections, and auxiliary views. Create technical sketches, geometric constructions, orthographic projections, pictorial/sectional views, and dimensioned drawings. (2 Lecture and 6 Laboratory hours per week) Prerequisites: DFTG 1409. [CIP15.1301]

**DFTG 1409****Basic Computer Aided Drafting****(4 credits)**

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. Identify terminology and basic functions used with CAD software; use CAD hardware and software to create, display, and plot/print working drawings. (2 Lecture and 6 Laboratory hours per week) [CIP15.1302]

**DFTG 1410****Specialized Computer Aided Drafting (CAD)****(4 credits)**

Microstation. A supplemental course to Basic Computer Aided Drafting using an alternative computer-aided drafting (CAD) software to create detail and working drawings. (2 lecture and 6 laboratory hours per week) [CIP15.1302]

**DFTG 1433****Mechanical Drafting****(4 credits)**

Study of mechanical drawings using dimensioning and tolerances, sectioning techniques, orthographic projection, and pictorial drawings. Develop a set of working drawings including assembly, detail, and pictorial. (2 Lecture and 6 Laboratory hours per week) Prerequisite: DFTG 2419 [CIP15.1306]

**DFTG 1445****Parametric Modeling and Design****(4 credits)**

Parametric-based design software for 3D design and drafting. Use parametric modeling techniques to create rendered assemblies, orthographic drawings, auxiliary views, and details from 3-dimensional models. (2 Lecture and 6 Laboratory hours per week). [CIP15.1306]

**DFTG 2317****Descriptive Geometry****(3 Credits)**

Graphical solutions to problems involving points, lines, and planes in space. Describe spatial relationships; use sequential thinking; and create views necessary to show object's true size and shape/development using points, lines, and planes in space. (3 lecture and 3 laboratory hours per week) Prerequisite: DFTG 1409. [CIP15.1301]

**DFTG 2406****Machine Design****(4 Credits)**

Theory and practice of design. Projects in problem-solving, including press fit, bolted and welded joints, and transmission components. Utilize the steps used in the design process, terminology, and mechanical processes to produce drawings. (2 Lecture and 6 Laboratory hours per week). Prerequisite: DFTG 1433 and DFTG 2440. [CIP15.1306]

**DFTG 2419****Intermediate Computer-Aided Drafting****(4 credits)**

AutoCAD. A continuation of practices and techniques used in basic computer-aided drafting including the development and use of prototype drawings, construction of pictorial drawings, extracting data, and basics of 3D. Produce 2D and 3D drawings, pictorial drawings; use external referencing of multiple drawings (2 Lecture and 6 Laboratory hours per week) Prerequisites: DFTG 1409 and BCIS 1405 or COSC 1401. [CIP15.1302]

**DFTG 2423****Pipe Drafting****(4 credits)**

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. Create drawings of foundations, structural supports, and process equipment; identify symbols and research specifications; generate a bill of material list; use charts and standards; generate isometric drawings; and calculate measurements for pipe fittings. (2 Lecture and 6 Laboratory hours per week) Prerequisites: DFTG 2419 [CIP15.1302]

**DFTG 2428**  
**Architectural Drafting – Commercial**  
**(4 credits)**

Architectural drafting procedures, practices, governing codes, terms and symbols including the preparation of detailed working drawings for a commercial building, with emphasis on commercial construction methods. Apply commercial construction materials and processes; produce a set of commercial construction drawings including a site plan, floor plans, reflected ceiling plan, sections, elevations, schedules, and details. (2 Lecture and 6 Laboratory hours per week) Prerequisite: DFTG 2419. [CIP15.1303]

**DFTG 2430**  
**Civil Drafting**  
**(4 credits)**

In-depth study of drafting methods and principles used in civil engineering. Interpret field notes; develop documents for a civil project; analyze and layout drainage and utilities infrastructure; and perform related calculations. (2 Lecture and 6 Laboratory hours per week). Prerequisites: DFTG 1409 Co requires: DFTG 2419. [CIP15.1304]

**DFTG 2435**  
**Advanced Technologies in Mechanical Design and Drafting**  
**(4 Credits)**

(SolidWorks). An advanced course in the use of parametric design techniques to design, assemble, evaluate and render mechanical assemblies; develop orthographic drawings, auxiliary views and details from three-dimensional models. (2 lecture and 6 lab hours per week) [CIP15.1306]

**DFTG 2440**  
**Solid Modeling/Design**  
**(4 credits)**

AutoCAD. A computer-aided modeling course. Development of three-dimensional drawings and models from engineering sketches and orthographic drawings and utilization of three dimensional models in design work. Create three-dimensional solid model objects; and generate pictorial and orthographic drawings. (2 Lecture and 6 Laboratory hours per week). Prerequisite: DFTG 1409 [CIP15.1302]

**DFTG 2445**  
**Advanced Pipe Drafting**  
**(4 Credits)**

A continuation of pipe drafting concepts building on the basic principles acquired in pipe drafting. Compile a comprehensive set of construction documents from engineering notes and process flow diagrams; solve design implementation problems; apply appropriate codes and standards; document the implementation of a comprehensive industrial plan; create details

for cost effective implementation; and integrate appropriate instrumentation and industrial devices. (2 Lecture and 6 Laboratory hours per week). Prerequisite: DFTG 2423 [CIP15.1302]

**DFTG 2450**  
**Geometric Dimensioning and Tolerancing**  
**(4 credits)**

Course Description: Geometric dimensioning and tolerancing, according to standards, application of various geometric dimensions and tolerances to production drawings. Apply tolerance, feature control frame, feature of size, datums, form, orientation, location, runout, and profile controls between various parts. Prerequisite: DFTG 1433 (2 Lecture and 6 Laboratory hours per week) [CIP15.1306]

**DFTG 2481**  
**Cooperative Education**  
**(4 credits)**

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. As outlined in the learning plan, apply the theory, concepts, and skills involving specialized materials, tools, equipment, procedures, regulations, laws, and interactions within and among political, economic, environmental, social, and legal systems associated with the occupation and the business/industry and will demonstrate legal and ethical behavior, safety practices, interpersonal and teamwork skills, and appropriate written and verbal communication skills using the terminology of the occupation and the business/industry. (2 Lecture and 6 Laboratory hours per week) [CIP15.1301]

**ENTC 1323**  
**Strength of Materials**  
**(3 credits)**

Course Description: Introduces the relationship between externally applied forces and internally induced stresses and the resulting deformations in structural members. Identify the principles of force and load; and calculate and measure the stresses and loads on structures. Prerequisite: TECM 1403 (3 lecture and 3 laboratory hours per week). [CIP15.0000]

**ENTC 2331**  
**Manufacturing Materials**  
**(3 credits)**

Identification of materials used in manufacturing including metals, plastics, composite materials, concrete, ceramics, and wood. Includes application of material properties and quality standards for selection of materials to manufacture components. Evaluate material properties to meet specific manufacturing criteria; employ quality assurance methods to verify material quality; and produce components using specified manufacturing processes. (3 lecture and 3 laboratory hours per week). [CIP15.0000]

**MCHN 1426**  
**Introduction to Computer-Aided Manufacturing (CAM)**  
**(4 credits)**

A study of Computer-Aided Manufacturing (CAM) software which is used to develop applications for manufacturing. Emphasis on tool geometry, tool selection, and the tool library. Use Computer-Aided

Manufacturing software to create part programs; transfer programs to the machine control unit; and machine parts. Prerequisite: DFTG 1433 and DFTG 2440 (2 Lecture and 6 Laboratory hours per week) [CIP48.0501]

**TECM 1403**  
**Technical Calculations**  
**(4 Credits)**

Specific mathematical calculations required by business and industry; Includes whole numbers, fractions, mixed numbers, decimals, percents, ratios, and proportions. Also covers converting to different units of measure (standard and/or metric). Solve business/industry problems using addition, subtraction, multiplication, and division; convert between whole numbers, fractions, mixed numbers, and decimals; perform calculations involving percents, ratios, and proportions; and convert numbers to different units of measurement (standard and/or metric). (3 lecture and 3 laboratory hours per week) [CIP27.0301]

## Journalism

*Thomas Parker, Department Chairperson*

**JOUR 1120**  
**Journalism Activities**  
**(1 credit)**

This course gives basic journalism training to students through experience on college publications. (2 laboratory hours per week). [CB0904015426]

## Management Development

*Susan Cooper, Department Chairperson*

**BMGT 1327**  
**Principles of Management**  
**(3 credits)**

The concepts, terminology, principles, theory, and issues that are the substance of the practice of management are examined. The student will explain the various theories and processes of management including its functions; identify roles of leadership in business; and recognize elements of the communication process and the guidelines for organizational design. (3 lecture hours per week). [CIP52.0201]

**BMGT 1382**  
**Cooperative Education-Business Administration and Management, General I**  
**(3 credits)**

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

repeated if topics and learning outcomes vary. Contact Dept. Chair prior to registering. ( 1 lecture and 20 laboratory hours per week).

[CIP52.0201]

#### **BMGT 2303**

##### **Problem Solving and Decision Making (3 credits)**

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. Skills and attitudes will be built around a series of critical questions. These critical questions provide a structure for critical thinking that support a continual, ongoing search for better opinions, decisions, or judgments. (3 lecture hours per week). [CIP52.0201]

#### **BMGT 2382**

##### **Cooperative Education - Business Administration & Management, General II (3 credits)**

Career related activities encountered in the student's area of specialization are offered through a cooperative agreement between the college, employer and student. Under supervision of the college and the employer, the student combines classroom learning with work experience. Directly related to a technical discipline, specific learning objectives guide the student through the paid or unpaid work experience. This course may be repeated if topics and learning outcomes vary. Contact Dept. Chair prior to registering. (1 lecture and 20 laboratory hours per week). [CIP52.0201]

#### **BMGT 2383**

##### **Cooperative Education - Business Administration & Management, General III (3 credits)**

Career related activities encountered in the student's area of specialization are offered through a cooperative agreement between the college, employer and student. Under supervision of the college and the employer, the student combines classroom learning with work experience. Directly related to a technical discipline, specific learning objectives guide the student through the paid or unpaid work experience. This course may be repeated if topics and learning outcomes vary. Contact Dept. Chair prior to registering. (1 lecture and 20 laboratory hours per week). [CIP52.0201]

#### **BUSG 2309**

##### **Small Business Management (3 credits)**

A course on how to start and operate a small business. Topics include facts about a small business, essential management skills, how to prepare a business plan, financial needs, marketing strategies, and legal issues. (3 lecture hours per week). [CIP52.0701]

#### **HRPO 1311**

##### **Human Relations (3 credits)**

Practical application of the principles and concepts of the behavioral sciences to interpersonal relationships in the business and industrial environment. (3 lecture hours per week). [CIP52.1003]

#### **HRPO1391**

##### **Special Topics in Human Resources Management (3 credits)**

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. Learning outcomes/objectives are determined by local occupational need and business and industry needs. (3 lecture hours per week). [CIP52.1001]

#### **HRPO 2301**

##### **Human Resources Management (3 credits)**

Behavioral and legal approaches to the management of human resources in organizations. The student will describe and explain the development of human resources management; evaluate current methods of job analysis, recruitment, selection, training/development, performance appraisal, promotion, and separation; discuss management's ethical, socially responsible, and legally required actions; assess methods of compensation and benefits planning; and examine the role of strategic human resource planning in support of organizational mission and objectives. (3 lecture hours per week). [CIP52.1001]

#### **HRPO 2307**

##### **Organizational Behavior (3 credits)**

The analysis and application of organizational theory, group dynamics, motivations theory, leadership concepts, and the integration of interdisciplinary concepts from the behavioral sciences. Experiences in managing and resolving organizational problems as well as team dynamics, team building strategies, and cultural diversity will be examined. (3 lecture hours per week.) [CIP52.1003]

#### **MRKG 1301**

##### **Services Marketing/Management (3 Credits)**

This course examines the characteristics of the service domain which today is the dominate industry in the United States. The planning, organization, production and marketing of quality services will be the focus of the course. It is designed to help develop an understanding of the unique marketing needs and management challenges faced by service organizations through examining customer interactions and perceptions to service experiences. (3 lecture hours per week). Prerequisite: MRKG 1311 [CIP 52.1401]

#### **MRKG 1311**

##### **Principles of Marketing (3 credits)**

This course is an introduction to basic marketing functions, identification of consumer and organizational needs, explanation of economic, psychological, sociological, and global issues, and description and analysis of the importance of marketing research. The student will identify the marketing mix components in relation to market segmentation and interpret market research data to forecast industry trends and meet customer demands. (3 lecture hours per week). [CIP52.1401]

#### **MRKG 2333**

##### **Principles of Selling (3 credits)**

This course serves as an introduction to the selling process and its application to all forms of sales. Identification of all the elements of the communication process between buyers and sellers in business and examination of the legal regulations and ethical issues of business which affect salespeople. The student will define the selling process and its application to all forms of sales, identify the elements of the communications process between buyers and sellers in business; and examine ethical issues and legal restrictions of American business which affect salespeople. (3 lecture hours per week). [CIP08.0706]

## **Mathematics**

*Jennifer Hopkins, Department Chairperson  
Bette Nelson, James Boler, Tammi Lansford, Deanna Dick, Charles Kilgore, Ralph Best, Robin Harbour*

*NOTE: The basics of arithmetic and algebra are taught in MATH 0309, MATH 0310, and MATH 0312. These courses benefit students needing additional preparation for college level work and those desiring only to improve their mathematical skills. One or all of these courses may be required by state law, or by the ACC Developmental Education Plan, for students whose scores on placement tests fall below established cutoff levels.*

#### **MATH 0309**

##### **Pre-Algebra (3 credits)**

This course offers instruction and practice in the basic arithmetic operations, geometry, and statistics. Topics covered include operations on whole numbers, fractions, decimals, percents, descriptive statistics, geometry and a study of signed numbers. The purpose of MATH 0309 is to prepare the students for MATH 0310. Enrollment in this course is based upon a self-perceived need to develop the skills covered or upon the college placement test. (3 lecture hours and 1 lab hour per week). [CB32.0104.5119]

#### **MATH 0310**

##### **Developmental Mathematics - Algebra (3 credits)**

This course includes linear equations and inequalities, applications, polynomial, and rational expression operations and equations. The purpose of MATH 0310 is to prepare students for MATH 0312. Students enrolling in this course must meet the developmental algebra standard on the placement test or have passed MATH 0309 with a grade of A, B, or C. (3 lecture hours and 1 lab hour per week). [CB32.0104.5119]

#### **MATH 0312**

##### **Developmental Mathematics - Intermediate Algebra (3 credits)**

Topics of this course include graphing linear equations, solving systems of equations, laws of exponents, radicals, solving quadratic equations, and

functions. The purpose of MATH 0312 is to prepare students for MATH 1314 or MATH 1332. Students enrolling in this course must meet the intermediate algebra standard on the placement test or have passed MATH 0310 with a grade of A, B, or C. (3 lecture hours per week). [CB32.0104.5219]

**MATH 1314**  
**College Algebra**  
**(3 credits)**

This course includes a review of the fundamental concepts of intermediate algebra, followed by a more intensive study of algebraic equations and inequalities, functions and graphs, graphs and zeros of polynomial functions, rational functions, exponential and logarithmic functions, systems of equations, matrices and the binomial theorem. Graphing calculators (TI-83, TI-84 or comparable models) are required. Students enrolling in this course must meet the college algebra standard on the placement test or have passed MATH 0312 with a grade of A, B, or C. (3 lecture hours per week). Prerequisite: READ 0310 with a C or better or the TSI standard in Reading. [CB27.0101.5419]

**MATH 1324**  
**Mathematics for Business & Social Science I**  
**(3 credits)**

This course is designed for business, economics, management, and finance students. The course begins with a review of linear equations and functions followed by a study of matrices, inequalities and linear programming, quadratic functions, exponential and logarithmic functions, mathematics of finance, and concludes with a study of probability. Applications in business and economics will be emphasized (3 lecture hours per week). Prerequisite: MATH 1314. [CB27.0301.5219]

**MATH 1325**  
**Mathematics for Business & Social Science II**  
**(3 credits)**

This course is designed for business, economics, management, and finance students. The course includes a study of derivatives, higher order derivatives, indefinite integrals, definite integrals, and functions of two or more variables. Applications in business and economics will be emphasized. (3 lecture hours per week). Prerequisite: MATH 1314 or MATH 1324. [CB27.0301.5319]

**MATH 1332**  
**Contemporary Mathematics I**  
**(3 credits)**

This course is designed for liberal arts, humanities and human/social sciences. It is not intended for mathematics, science, engineering, elementary education or business majors. The course emphasizes an appreciation of the art, history, beauty, and application of mathematics. Topics may include sets, logic, number theory, measurement, geometric concepts, and an introduction to probability and statistics. Prerequisite: MATH 0312 with a grade of A,B, or C or meeting the college algebra standard on a placement test and READ 0310 with a C or better or the TSI standard in Reading. (3 lecture hours per week). [CB27.0101.5119]

**MATH 1333**  
**Contemporary Mathematics for Tech**  
**(3 credits)**

This course provides a broad background in principles and applications of mathematics found in the technical and vocational degree programs. Topics will include: a survey of equations, a survey of relations and functions, probability and statistics, and applications. This course will satisfy the math requirements of the Associate of Applied Science, but does not satisfy the math requirements of the Associate of Arts, The Associate of Science, or the Associate of Arts in Teaching degree. Prerequisite: MATH 0310 with a C or higher or the equivalent on the college placement exam and READ 0310 with a C or better or the TSI standard in Reading. (3 lecture hours per week). [CB27.0101.5119]

**MATH 1342**  
**Elementary Statistical Methods**  
**(3 credits)**

This course includes such topics as permutations and combinations, probability, testing hypotheses, sample theory, parameter estimation, frequency functions, and correlation and regression. Students enrolling in this course should have previously taken two years of high school algebra and/or passed MATH 1314. (3 lecture hours per week). Prerequisites: MATH 1314. [CB27.0501.5119]

**MATH 1350**  
**Fundamentals of Mathematics I**  
**(3 credits)**

This course is designed specifically for students who seek teacher certification. Topics and concepts in this course include 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. Prerequisite: MATH 1314 or equivalent or higher level math. [CB2701015619]

**MATH 1351**  
**Fundamentals of Mathematics II**  
**(3 credits)**

This course is designed specifically for students who seek teacher certification. Topics and concepts in this course include concepts of geometry, probability, and statistics, as well as applications of algebraic properties of real numbers to concepts of measurement with an emphasis on problem solving and critical thinking. Prerequisite: MATH 1314 or MATH 1350 or equivalent. [CB27.0101.6019]

**MATH 2318**  
**Linear Algebra**  
**(3 credits)**

This course includes such topics as vector spaces, linear independence, bases, linear transformations, matrices, determinants, eigenvalues, eigenvectors, and applications. (3 lecture hours per week). Prerequisite: MATH 2413 or departmental approval. [CB27.0101.6119]

**MATH 2320**  
**Differential Equations**  
**(3 credits)**

This course covers Ordinary Differential Equations and Applications. Included are First Order Equations, Linear Homogeneous Equations with Constant Coefficients, Undetermined Coefficients and Variation of Parameters, and Power Series Methods. The Laplace Transform is used to solve Initial Value Problems. Eigenvalues and Eigenvectors are introduced in order to solve Systems of Linear Differential Equations. Fourier Series are introduced. (3 lecture hours per week). Prerequisite: MATH 2414 or departmental approval. [CB27.0301.5119]

**MATH 2412**  
**Pre-Calculus Math**  
**(4 credits)**

This course covers a review of algebraic operations, trigonometric functions, trigonometric identities and equations, applications of trigonometry, exponential and logarithmic functions, and analytic geometry. Graphing calculators (TI-83, TI-84 or comparable models) are required. (4 lecture hours per week). Prerequisite: MATH 1314 or departmental approval. [CB2701015819]

**MATH 2413**  
**Calculus I**  
**(4 credits)**

This course is designed to meet the needs of mathematics, engineering, and science students. Topics included in this course are vectors and vector operations, limits, continuity, differentiation and integration of algebraic and transcendental functions, with applications such as optimization, curve sketching, and finding area under a curve. Students enrolling in this course should have previously taken two years of high school algebra, a course in plane trigonometry, and a course in analytic geometry, or passed MATH 1314 and MATH 2412. (4 lecture hours per week). Prerequisites: MATH 2412 or departmental approval. [CB27.0101.5919]

**MATH 2414**  
**Calculus II**  
**(4 credits)**

This course is a continuation of MATH 2413. Topics include differentiation and integration of hyperbolic and inverse trigonometric functions, techniques of integration, sequences and series, and applications such as the area between curves. (4 lecture hours per week). Prerequisites: MATH 2413 or equivalent course. [CB27.0101.5919]

**MATH 2415**  
**Calculus III**  
**(4 credits)**

This course is a continuation of MATH 2414. Topics covered include vector-valued functions, functions of several variables, partial differentiation, multiple integrals, vector fields, line integrals, Green's Theorem, Stoke's Theorem, and the Divergence Theorem. (4 lecture hours per week). Prerequisite: MATH 2414 or equivalent course. [CB27.0101.5919]

## Music

Kevin Moody, Department Chairperson  
David Griffith

### General Music

#### **MUSI 1158** **Opera Workshop** (1 credit)

This course provides practical experience for the singing actor in the integration of music, acting, and staging of portions of operas. (1 lecture and 2 laboratory hours per week). [CB50.0908.5226]

#### **MUSI 1159/2159** **Musical Theater** (1 credit)

This course can be repeated for credit. This course stresses the study and performance of works selected from the music Theater repertoire. (1 lecture and 4 laboratory hours per week). [CB50.0903.6126]

#### **MUSI 1166** **Woodwind Class** (1 credit)

This required course for music education majors with instrumental concentrations examines techniques of performing and of instructing beginning instrumentalists on flute, oboe, clarinet, bassoon, saxophone, and piccolo. (1 lecture and 2 laboratory hours per week). [CB50.0903.5126]

#### **MUSI 1168** **Brass Class** (1 credit)

This required course for music education majors with instrumental concentrations examines techniques of performing and of instructing beginning instrumentalists on trumpet, French horn, trombone, and tuba. (1 lecture and 2 laboratory hours per week). [CB50.0903.5126]

#### **MUSI 1181** **Class Piano I** (1 credit)

This course is designed for students with little or no previous keyboard experience and provides a study of basic technique, scales, chords, and repertoire. (1 lecture and 1 laboratory hours per week). [CB50.0907.5126]

#### **MUSI 1182** **Class Piano II** (1 credit)

This Class piano course for beginners continues the study of basic techniques, scales, chords, and basic repertoire. (1 lecture and 1 laboratory hours per week). [CB50.0907.5126]

#### **MUSI 1183** **Voice Class** (1 credit)

This laboratory class, designed for students with no previous voice training, provides instruction in breathing, tone production, and diction. (1 lecture and 2 laboratory hours per week). [CB50.0908.5126]

#### **MUSI 1188** **Percussion Class** (1 credit)

This required course for music education majors with instrumental concentrations examines techniques of performing and of instructing beginning instrumentalists on snare drum, tympani, xylophone, cymbals, and other percussion instruments. (1 lecture and 2 laboratory hours per week). [CB50.0903.5126]

#### **MUSI 1192** **Guitar Class** (1 credit)

This course, designed for beginning guitar students, provides a study of basic techniques, chords, and basic repertoire. (1 lecture and 2 laboratory hours per week). [CB50.0911.5126]

#### **MUSI 1211** **Music Theory I** (2 credits)

This course provides a review of musical rudiments, harmony and voice-leading through submediant and mediant chords, figured bass, cadences and phrase structure, basic analysis, and elementary composition. (3 lecture hours per week). Prerequisite: READ 0310. Corequisite: MUSI 1216 [CB50.0904.5126]

#### **MUSI 1212** **Music Theory II** (2 credits)

This course studies harmony and voice-leading through modal mixture, secondary dominants and modulation, periodic structures, and further analysis and composition. (3 lecture hours per week). Prerequisite: READ 0310 and MUSI 1211. Corequisite: MUSI 1217 [CB50.0904.5126]

#### **MUSI 1216** **Elementary Sight Singing & Ear Training I** (2 credits)

This required course for music majors is the first of a four-semester presentation of basic aural, visual, and vocal exercises in dictation and in sight-singing. (3 laboratory hours per week). Corequisite: MUSI 1211. [CB50.0904.5626]

#### **MUSI 1217** **Elementary Sight Singing & Ear Training II** (2 credits)

This required course for music majors is the second of a four-semester presentation of basic aural, visual, and vocal exercises in dictation and sight-singing. (3 laboratory hours per week). Prerequisite: MUSI 1216. Corequisite: MUSI 1212. [CB50.0904.5626]

#### **MUSI 1263** **Improvisation** (2 credits)

This course presents the techniques of improvising music through the analysis of melodic motives, chordal construction, and sequencing, and it applies this analysis to traditional and contemporary materials. (1 lecture and 2 laboratory hours per week). [CB50.0903.6526]

#### **MUSI 1301** **Introduction to Music** (3 credits)

This course is an introduction to the elements of music including notation, rhythm, melody, scales, keys, and chords. The course meets the needs of elementary education majors and other students who wish to gain a working knowledge of music. (3 lecture hours per week). Prerequisite: READ 0309. [CB50.0904.5526]

#### **MUSI 1306** **Music Appreciation** (3 credits)

What is music? Where does it come from? What did music sound like 2000 years ago? Who was Beethoven and why should I care? Take this course and find out. (3 lecture hours per week). Prerequisites: READ 0309. [CB50.0902.5126]

#### **MUSI 1308** **Survey of Music Literature I** (3 credits)

This course is a study of instrumental and vocal music forms. It includes representative compositions from sacred and secular music. (3 lecture hours per week). Prerequisites: READ 0310 and ENGL 0310. [CB50.0902.5226]

#### **MUSI 1309** **Survey of Music Literature II** (3 credits)

This course is a survey of western classical music from Beethoven through the present. This music history course is open to non-majors. (3 lecture hours per week). Prerequisites: READ 0310 and ENGL 0310 [CB50.0902.5226]

#### **MUSI 1310** **American Music** (3 credits)

The Beatles, Elvis, The Rolling Stones, from Rag Time to Hip-Hop: How did all this get started? You'll find out if you take this class. (3 lecture hours per week). Prerequisite: READ 0309 [CB50.0902.5326]

#### **MUSI 1386** **Composition** (3 credits)

This course provides instruction in music composition in small forms for simple media in both traditional and contemporary electronic styles. (3 lecture hours per week). [CB50.0904.5326]

#### **MUSI 2181** **Class Piano III** (1 credit)

This class piano course is for students who have taken 1 year of piano and is a continuation of basic techniques. (1 lecture and 1 laboratory hours per week). [CB50.0907.5126]

#### **MUSI 2182** **Class Piano IV** (1 credit)

This class piano course is for students who have taken 3 semesters of class piano and is a continuation of basic techniques. (1 lecture and 1 laboratory hours per week) [CB50.0907.5126]

**MUSI 2211**

**Music Theory III  
(2 credits)**

This course studies harmony and voice-leading through linear chords, the Neapolitan and augmented sixths, advanced modulation, ninth chords, binary form, more advanced modulation and composition. (3 lecture hours per week). Corequisite: MUSI 2216. Prerequisite: MUSI 1212. [CB50.0904.5226]

**MUSI 2212**

**Music Theory IV  
(2 credits)**

This course studies compositional practices of the twentieth century and later, through analysis and composition exercises. (3 lecture hours per week). Prerequisite: MUSI 2211. Corequisite: MUSI 2217 [CB50.0904.5226]

**MUSI 2216**

**Advanced Sight Singing & Ear Training I  
(2 credits)**

This required course for music majors is the third of a four-semester presentation of basic aural, visual, and vocal exercises in dictation and sight-singing. (3 laboratory hours per week). Prerequisite: MUSI 1217. Corequisite: MUSI 2211. [CB50.0904.5726]

**MUSI 2217**

**Advanced Sight Singing & Ear Training II  
(2 credits)**

This required course for music majors is the fourth of a four-semester presentation of basic aural, visual, and vocal exercises in dictation and sight-singing. (3 laboratory hours per week). Prerequisite: MUSI 2216. Corequisite: MUSI 2212. [CB50.0904.5726]

**Ensembles**

**MUEN 1125, 1126, 2125, 2126**

**Jazz Band  
(1 credit each)**

This course can be repeated for credit. This organization rehearses and performs contemporary jazz and rock music as well as standard big band literature. Performances include concerts and participation in area festivals. membership is open to all College students by approval of the instructor. (4 laboratory rehearsal hours per week). [CB50.0903.5526]

**MUEN 1122, 1123, 2122, 2123**

**Concert Band  
(1 credit each)**

This course can be repeated for credit. This concert group of brass, woodwind, and contemporary works for wind ensembles. (5 laboratory rehearsal hours per week). [CB50.0903.5526]

**MUEN 1135, 2135**

**Jazz Lab  
(1 credit each)**

This course can be repeated for credit. This organization performs for many special occasions on and off campus. Music includes small band jazz-rock with emphasis on individual improvisation. Membership is open to all College students by approval of the instructor. (3 laboratory hours per week). [CB50.0903.5626]

**MUEN 1141, 1142, 2141, 2142**

**Concert Choir  
(1 credit each)**

This course can be repeated for credit. This organization rehearses and performs traditional and contemporary choral literature. In addition to local concerts, the group participates in campus activities. In order to obtain credit, members must attend all called rehearsals and public performances. (5 laboratory rehearsal hours per week). [CB50.0903.5726]

**MUEN 1143, 1144, 2143, 2144**

**College Singers  
(1 credit each)**

This course can be repeated for credit. This organization is limited in membership. Students are selected through auditions from the membership of the College choir. The student must have previous experience in choral music, a member in good standing of the concert choir, ability to sight-read, and instructor approval. (4 laboratory rehearsal hours per week). [CB50.0903.5726]

**MUEN 1151, 1152, 2151, 2152**

**Chamber Singers  
(1 credit)**

This course can be repeated for credit. Membership is open to all students on the basis of audition/conference with the director. Students are also expected to enroll in Concert Choir. (4 laboratory rehearsal hours per week). [CB50.0903.5826]

**Applied Music**

*All applied music courses are under [CB50.0903.5426]*

**MUAP 1217, 1218**

**Applied Music Woodwind  
(2 credits each)**

These courses provide one hour of individual instruction per week in bassoon, clarinet, flute, oboe, or saxophone. (1 lecture and 4 laboratory practice hours per week).

**MUAP 1237, 1238**

**Applied Music Brass  
(2 credits each)**

These courses provide one hour of individual instruction per week in trumpet, trombone, French horn or tuba. (1 lecture and 4 laboratory practice hours per week).

**MUAP 1257, 1258**

**Applied Music Percussion  
(2 credits each)**

These courses provide one hour of individual instruction a week in the use of percussion instruments. (1 lecture and 4 laboratory practice hours per week).

**MUAP 1261, 1262**

**Applied Music Guitar  
(2 credits each)**

These courses provide one hour of individual instruction a week in guitar. (1 lecture and 4 laboratory practice hours per week).

**MUAP 1269, 1270**

**Applied Music Piano  
(2 credits each)**

These courses provide one hour of individual instruction a week in piano. (1 lecture and 4 laboratory practice hours per week).

**MUAP 1281, 1282**

**Applied Music Voice  
(2 credits each)**

These courses provide one hour of individual instruction per week in voice. (1 lecture and 4 laboratory practice hours per week).

**MUAP 1291, 1292**

**Applied Music Composition  
(2 credits each)**

These courses provide one hour of instruction per week in music composition. Composing in small forms for simple media in both traditional styles and styles of the student's choice. (1 lecture and 4 laboratory practice hours per week).

**MUAP 2217, 2218**

**Applied Music Woodwind  
(2 credits each)**

These courses provide one hour of individual instruction per week in bassoon, clarinet, flute, oboe, or saxophone. (1 lecture and 4 laboratory practice hours per week).

**MUAP 2237, 2238**

**Applied Music Brass  
(2 credits each)**

These courses provide one hour of individual instruction per week in trumpet, trombone, French horn or tuba. (1 lecture and 4 laboratory practice hours per week).

**MUAP 2257, 2258**

**Applied Music Percussion  
(2 credits each)**

These courses provide one hour of individual instruction per week in percussion instruments. (1 lecture and 4 laboratory practice hours per week).

**MUAP 2261, 2262**

**Applied Music Guitar  
(2 credits each)**

These courses provide one hour of individual instruction per week in guitar. (1 lecture and 4 laboratory practice hours per week).

**MUAP 2269, 2270**

**Applied Music Piano  
(2 credits each)**

These courses provide one hour of individual instruction per week in piano. (1 lecture and 4 laboratory practice hours per week).

**MUAP 2281, 2282**

**Applied Music Voice  
(2 credits each)**

These courses provide one hour of individual instruction per week in voice. (1 lecture and 4 laboratory practice hours per week).

**MUAP 2291, 2292****Applied Music Composition  
(2 credits each)**

These courses provide one hour of instruction per week in music composition. Composing in small forms for simple media in both traditional styles and styles of the student's choice. (1 lecture & 4 laboratory practice hours per week).

**Recording****MUSC 1327****Audio Engineering I  
(3 credits)**

An overview of the modern recording studio and related personnel. Topics include basic studio electronics and acoustic principles, waveform analysis, microphone concepts and miking techniques, studio set up and signal flow, recording console theory, signal processing concepts, tape machine principles and operation and an overview of mixing and editing. (2 lecture and 4 lab hours per week). [CB 10.0203]

**MUSC 2427****Audio Engineering II  
(4 credits)**

A continuation of Audio Engineering I with emphasis on implementation of the techniques and theories of the recording process. Topics include applications on microphones, the audio console, the multitrack tape recorder and signal processing devices in recording sessions environments. (2 lecture and 4 lab hours per week). Prerequisites: MUSC 1327. [CB 10.0203]

**MUSC 2447****Audio Engineering III  
(4 credits)**

Presentation of advanced procedures and techniques utilized in recording and manipulating audio information. Topics include advanced computer based console automation, hard disk based digital audio editing, nonlinear digital multitrack recording and advanced engineering project completions. (2 lecture and 4 lab hours per week). [CB 10.0203]

**Nursing****(Associate Degree)**

*Sally Durand, Director*

*Robin Abrams, Mary Alice Estes, Debra Fontenot, Judy Hafner, Sharon Hightower, Manuela Imthum, Susan Priest, Christy Scales, Wendy Stewart, Briana Sowell.*

**RNSG 1108****Dosage Calculations for Nursing  
(1 credit)**

Dosage calculations include reading, interpreting and solving calculation problems encountered in the preparation of medications, includes conversion of measurements within the apothecary, avoirdupois, and metric system. This course emphasizes critical thinking skills and techniques needed to accurately and safely calculate medication dosages. Concepts of society, client/family, health and nursing roles are incorporated. (1 lecture hour per week)

Prerequisite: MATH 0310 [CIP51.3801]

**RNSG 1162****Clinical Nursing: Mental Health Nursing  
(1 credit)**

A health related work-based learning experience that enables the student to apply nursing theory, skills and concepts. Direct supervision is provided by the clinical professional. (3 lab hours per week). Prerequisite: RNSG 1513, 1215, 1108. Corequisite: RNSG 2213 [CIP51.3801]

**RNSG 1215****Health Assessment  
(2 credits)**

Development of skills and techniques required for a comprehensive health assessment within a legal/ethical framework. This course emphasizes critical thinking skills and techniques needed to perform health assessments of the adult and family. Concepts of society, client/family, health and nursing roles are incorporated. (1 lecture and 2 lab hours per week). Prerequisite: BIOL 2401 [CIP51.3801]

**RNSG 1246****Legal and Ethical Issues for Nurses  
(2 credits)**

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. Emphasis is on collaboration to analyze and integrate legal/ethical issues as related to professional nursing practice. Concepts of society, client/family, health and nursing roles are incorporated. (2 lecture hours per week). Co-requisite: RNSG 1512 or 1443. [CIP51.3801]

**RNSG 1260****Clinical Nursing: Foundations for Nursing Practice  
(2 credits)**

A health related work-based learning experience that enables the student to apply nursing theory, skills and concepts. Direct supervision is provided by the clinical professional. Clinical experiences allow the student opportunities to begin utilizing nursing skills in caring for adults and family in acute care settings. Clinical education is an unpaid learning experience. Concurrent theory enrollment in RNSG 1513 is required. (6 lab hours per week) Prerequisites: Admission into the ADN Program, BIOL 2401, BIOL 2402, ENGL 1301. Corequisites: , PSYC 2314, RNSG 1513, RNSG 1215, RNSG 1108. [CIP51.3801]

**RNSG 1262****Clinical Nursing: Concepts of Nursing Practice I for Articulating Students  
(2 credits)**

A health related work-based learning experience that enables the student to apply nursing theory, skills and concepts. Direct supervision is provided by the clinical professional. Concurrent theory enrollment is required in RNSG 1417. (6 lab hours per week) Prerequisites: Admission into the ADN Program, RNSG 1215, BIOL 2401, BIOL 2402, BIOL 2420, PSYC 2301, PSYC 2314, ENGL 1301. (Corequisites: RNSG 1417. [CIP51.3801]

**RNSG 1417****Concepts of Nursing Practice I for Articulating Students  
(4 credits)**

Provides the articulating student the opportunity to examine the role of the professional nurse; application of a systematic problem solving process and critical thinking skills which includes a focus on the adult population in selected settings; and competency in knowledge, judgment, skill, and professional values within a legal/ethical framework. Concepts of society, client/family, health and nursing roles are incorporated. Concurrent clinical enrollment is required in RNSG 1262. (3 lecture and 2 lab hours per week) Prerequisites: Admission into the ADN Program, RNSG 1215, BIOL 2401, BIOL 2402, BIOL 2420, PSYC 2301, PSYC 2314, ENGL 1301. Corequisites: RNSG 1262. [CIP51.3801]

**RNSG 1441****Common Concepts of Adult Health  
(4 credits)**

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 is on knowledge, judgement, skills, and professional values within a legal-ethical framework. Incorporates the nursing roles of provider of care, coordinator of care and member of a profession. Concepts of society, client/family, health and nursing roles are incorporated. Concurrent clinical enrollment is required in RNSG 1561 (3 lecture and 2 lab hours per week). Prerequisites: RNSG 1513, RNSG 1215, RNSG 1108. Corequisites: PSYC 2301, RNSG 1561. [CIP51.3801]

**RNSG 1443****Complex Concepts of Adult Health  
(4 credits)**

Integration of previous knowledge and skills related to common adult health needs into the continued development of the professional nurse as 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 is on knowledge, judgments, skills, and professional values within a legal/ethical framework. Concepts of society, client/family, health and nursing roles are incorporated. Concurrent clinical enrollment is required in RNSG 2563. (3 lecture and 2 lab hours per week) Prerequisites: BIOL 2420; and either RNSG 2213, 1441 or RNSG 1417. Corequisites: RNSG 2563. [CIP51.3801]

**RNSG 1512****Nursing Care of the Childbearing and Childrearing Family  
(5 credits)**

Study of the concepts related to the provision of nursing care for childbearing and childrearing families; application of systematic problem solving processes and critical thinking skills, including a focus on the childbearing family during preconception, prenatal, antepartum, neonatal, and postpartum periods and the childrearing family from birth to adolescence; and competency in knowledge, judgment, skill, and professional values within a legal/ethical framework. Analysis and synthesis of knowledge and skills

are based upon normal and abnormal assessment findings. Concepts of society, client/family, health and nursing roles are incorporated. Concurrent clinical enrollment is required in RNSG 2463. (4 lecture and 2 lab hours per week.) Prerequisites: RNSG 1417 and BIOL 2420, or RNSG 1441. Corequisites: RNSG 2463. [CIP51.3801]

**RNSG 1513**  
**Foundations for Nursing Practice**  
**(5 credits)**

Introduction to the role of the professional nurse as a provider of care, coordinator of care, and member of the profession. Topics include but are not limited to the fundamental concepts of nursing practice, history of professional nursing, a systematic framework for decision-making, mechanisms of disease, the needs and problems that nurses help patients manage, and basic psychomotor skills. Emphasis is on knowledge, judgment, skills and professional values within a legal/ethical framework. Concepts of society, client/family, health and nursing roles are incorporated. Concurrent clinical enrollment in RNSG 1260 is required. (4 lecture and 3 lab hours per week) Prerequisites: Admission into the ADN Program, BIOL 2401, BIOL 2402, ENGL 1301. Corequisites: PSYC 2314, RNSG 1215, RNSG 1108, RNSG 1260. [CIP51.3801]

**RNSG 1561**  
**Clinical Nursing: Common Concepts of Adult Health**  
**(5 credits)**

A health related work-based learning experience that enables the student to apply nursing theory, skills and concepts. Direct supervision is provided by the clinical professional. Concurrent theory enrollment is required in RNSG 1441. (15 lab hours per week) Prerequisites: RNSG 1513, RNSG 1215, RNSG 1108. Corequisites: PSYC 2301, RNSG 1441. [CIP51.3801]

**RNSG 2121**  
**Management of Client Care**  
**(1 credit)**

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. This course emphasizes leadership and management theories, personal qualities, and tasks necessary to positively influence patient care and outcomes of the health care facility. Concepts of society, client/family, health and nursing roles are incorporated. (1 lecture hour per week). Co-Req: RNSG 1512 or 1443. [CIP51.3801]

**RNSG 2213**  
**Mental Health Nursing**  
**(2 credits)**

Principles and concepts of mental health, psychopathology, and treatment modalities related to the nursing care of clients and their families. The course focuses on the study of behavioral patterns considered to be deviations from normal. Concepts of society, client/family, health and nursing roles are incorporated. Concurrent clinical enrollment in RNSG 1162 is required. (2 lecture hours per week) Prerequisites: RNSG 1513, 1215, 1108, PSYC 2301. Corequisites: RNSG 1162. [CIP51.3801]

**RNSG 2463**  
**Clinical Nursing: Nursing of the Childbearing and Childrearing Family**  
**(4 credits)**

A health related work-based learning experience that enables the student to apply nursing theory, skills and concepts. Direct supervision is provided by the clinical professional. Clinical experience provides the student with opportunities to care for and observe the family during pregnancy, childbirth and childrearing in the hospital and clinic settings. Concurrent theory enrollment is required in RNSG 1512. (12 lab hours per week) Corequisites: RNSG 1512. [CIP51.3801]

**RNSG 2563**  
**Clinical Nursing: Complex Concepts of Adult Health**  
**(5 credits)**

A health related work-based learning experience that enables the student to apply nursing theory, skills and concepts. Direct supervision is provided by the clinical professional. Concurrent theory enrollment is required in RNSG 1443. (15 lab hours per week). Prerequisites: RNSG 2213 or RNSG 1417. Corequisites: RNSG 1443. [CIP51.3801]

**Nursing**  
**(Vocational)**

*Karen Briza, Department Chairperson*  
*Nedette Devries-Klasing, Melinda Wallace*

**VNSG 1122**  
**Vocational Nursing Concepts**  
**(1 credit)**

Introduction to the nursing profession and its responsibilities and the legal and ethical issues in nursing practice. Concepts related to the physical, emotional, and psychosocial self-care of the learner/professional. Learning Outcomes: The student will discuss the personal adjustments essential to the development of the vocational nurse; identify the role of the licensed vocational nurse; and discuss the legal and ethical responsibilities in vocational nursing practice. (1 lecture hour per week). [CIP51.3901]

**VNSG 1160**  
**Clinical - Practical Nurse I**  
**(1 credit)**

A method of instruction providing detailed education, training and work-based experience, and direct patient/client care, generally at a clinical site. Specific detailed learning objectives are developed for each course by the faculty. On-site clinical instruction, supervision, evaluation, and placement is the responsibility of the college faculty. Clinical experiences are unpaid external learning experience. Course may be repeated if topics and learning outcomes vary. Learning Outcomes: As outlined in the learning plan, the student will apply the theory, concepts, and skills involving specialized materials, equipment, procedure, regulations, laws, and interactions within and among political, economic, environmental, social, and legal systems associated with the particular occupation and the

business/industry, and demonstrate legal and ethical behavior, safety practices, interpersonal and teamwork skills, communicating in the applicable language of the occupation and the business or industry. (5 clinical hours per week). Corequisite: VNSG 1423. [CIP51.3901]

**VNSG 1219**  
**Professional Development**  
**(2 credits)**

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. Learning Outcomes: The student will describe the role of the licensed vocational nurse in multi-disciplinary settings inclusive of basic principles of leadership and management; discuss the role of professional organizations and regulatory agencies; and identify criteria and appropriate resources for continuing education. (2 lecture hours per week). [CIP51.3901]

**VNSG 1226**  
**Geriatrics**  
**(2 credits)**

Overview of the normal physical, psychological, and cultural aspects of the aging process. Addresses common disease processes of aging and explores attitudes towards care of the elderly. Topics include but are not limited to introduction to aging; the aging adult; geriatric mental health; sexuality and aging; pain management; geriatric medications; assisting the dying client and family; hospice care. (2 lecture hours per week). [CIP51.3901]

**VNSG 1227**  
**Essentials of Medication Administration**  
**(2 credits)**

General principles of medication administration including determination of dosage, preparation, safe administration, and documentation of multiple forms of drugs, IV administration is not included. Instruction includes various systems of measurement. Lab required. Learning Outcomes: The student will demonstrate accurate dosage calculation; discuss the principles of medication administration safety; and identify the elements of accurate documentation of medication administration. (1 lecture and 2 laboratory hours per week). [CIP51.3901]

**VNSG 1230**  
**Maternal - Neonatal Nursing**  
**(2 credits)**

Utilization of the nursing process in the assessment and management of the child bearing 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. Learning Outcomes: The student will discuss the bio-psycho-socio-cultural needs of the childbearing family; and utilize the nursing process to assist in planning the care of the childbearing family. (2 lecture hours per week). Corequisite: VNSG 1660. [CIP51.3901]

**VNSG 1234**  
**Pediatrics**  
**(2 credits)**

Study of childhood growth & development childhood

diseases and childcare from infancy through adolescence. Focus on the care of the well and the ill child utilizing the nursing process. Learning Outcomes: The student will identify principles of growth & development and utilize the nursing process to assist in planning care for the well or ill child. (2 lecture hours per week). Corequisite: VNSG 1660. [CIP51.3901]

**VNSG 1301  
Mental Health and Mental Illness  
(3 credits)**

Study of personality development, human needs, common mental mechanisms, and factors influencing mental health and mental illness. Includes common mental disorders and related therapy. The student will identify the characteristics of mental health; identify common mental illness and maladaptive behaviors; describe trends in psychotherapeutic treatment; discuss the application of therapeutic communication skills; and assist in the formulation of a plan of care for the individual with mental illness or maladaptive behavior. (3 lecture hours per week). [CIP51.3901]

**VNSG 1329  
Medical Surgical Nursing I  
(3 credits)**

Application of the nursing process to the care of adult and geriatric patients experiencing respiratory, gastrointestinal, genitourinary, musculoskeletal, and dermatological medical-surgical conditions in the health-illness continuum. A variety of health care settings are utilized. Learning Outcomes: The student will identify the components of the health-illness continuum; identify prevalent respiratory, gastrointestinal, genitourinary, musculoskeletal, and dermatological medical surgical conditions affecting the adult and gerian and utilize the nursing process to assist in developing a plan of care for selected medical-surgical conditions. (3 lecture hours per week). Corequisite: VNSG 1661. [CIP51.3901]

**VNSG 1331  
Pharmacology  
(3 credits)**

Fundamentals of medications and their diagnostic, therapeutic, and curative effects. Includes nursing interventions utilizing the nursing process. Learning Outcomes: The student will identify properties, effects, and principles of pharmacotherapeutic agents; and list common nursing interventions associated with the various pharmacotherapeutic agents. (4 lecture hours per week). [CIP51.3901]

**VNSG 1332  
Medical - Surgical Nursing II  
(3 credits)**

Continuation of Medical-Surgical Nursing I with application of the nursing process to the care of adult and geriatric patients experiencing cardiovascular, neurosensory, endocrine, and oncological medical-surgical conditions in the health-illness continuum. Includes a variety of health care settings. Learning Outcomes: The student will identify the components of the health-illness continuum; identify prevalent cardiovascular, neurosensory, endocrine, and oncological medical surgical conditions affecting the adult and gerian and utilize the nursing process to assist in developing a

plan of care for selected medical-surgical conditions. (3 lecture hours per week). Corequisite: VNSG 1661. [CIP51.3901]

**VNSG 1420  
Anatomy & Physiology for Allied Health  
(4 credits)**

Introduction to the normal structure and function of the body including an understanding of the relationship of body systems in maintaining homeostasis. Learning Outcomes: The student will identify the structure of each of the major body systems; describe the function of each of the major body systems; and discuss the interrelationship of systems in maintaining homeostasis. (4 lecture hours per week). [CIP51.3901]

**VNSG 1423  
Basic Nursing Skills  
(4 credits)**

Mastery of entry level nursing skills and competencies for a variety of health care settings. Utilization of the nursing process as the foundation for all nursing interventions. Lab required. Learning Outcomes: The student will demonstrate competency in basic nursing skills; identify the steps in the nursing process and how each relates to nursing care; and discuss the delivery of basic nursing skills in a variety of health care setting. (3 lecture and 4 laboratory hours per week). Corequisite: VNSG 1160. [CIP51.3901]

**VNSG 1660  
Clinical - Practical Nurse II  
(6 credits)**

A method of instruction providing detailed education, training, and work-based experience, and direct patient/client care, generally at a clinical site. Specific detailed learning objectives are developed for each course by the faculty. On-site clinical instruction, supervision, evaluation, and placement is the responsibility of the college faculty. Clinical experiences are unpaid external learning experience. Course may be repeated if topics and learning outcomes vary. Learning Outcomes: As outlined in the learning plan, the student will apply the theory, concepts, and skills involving specialized materials, equipment, procedure, regulations, laws, and interactions within and among political, economic, environmental, social, and legal systems associated with the particular occupation and the business/industry, and demonstrate legal and ethical behavior, safety practices, interpersonal and teamwork skills, communicating in the applicable language of the occupation and the business or industry. (24 clinical hours per week). Corequisites: VNSG 1330 and VNSG 1334. [CIP51.3901].

**VNSG 1661  
Clinical - Practical Nurse III  
(6 credits)**

A method of instruction providing detailed education, training and work-based experience, and direct patient/client care, generally at a clinical site. Specific detailed learning objectives are developed for each course by the faculty. On-site clinical instruction, supervision, evaluation, and placement is the responsibility of the college faculty. Clinical experiences are unpaid external learning experience. Course may be repeated if topics and learning

outcomes vary. Learning Outcomes: As outlined in the learning plan, the student will apply the theory, concepts, and skills involving specialized materials, equipment, procedure, regulations, laws, and interactions within and among political, economic, environmental, social, and legal systems associated with the particular occupation and the business/industry, and demonstrate legal and ethical behavior, safety practices, interpersonal and teamwork skills, communicating in the applicable language of the occupation and the business or industry. (24 clinical hours per week). Corequisites: VNSG 1329 and VNSG 1332. [CIP51.3901]

**Nutrition**

*Sally Durand, Department Chairperson*

**HECO 1322  
Nutrition & Diet Therapy**

**\*This course is only offered in the Fall Semester.**

**(3 credits)**

This course is a study of nutrients including functions, food sources, digestion, absorption and metabolism with application to normal and preventative nutrition needs across the lifespan. The course includes nutrient intake analysis, energy expenditure evaluation, and diet planning. (3 lecture hours per week). Prerequisite: BIOL 2401, READ 0309. [CIP19.0502]

**Office Administration—  
(formerly Business Technology)**

*Catherine Finley, Department Chairperson  
Crystal Price*

***It is the responsibility of all students taking Office Administration internet course(s) to contact their instructor(s) by the third class day through MyBlackboard.***

***Students are required to use the same text books and software version used by the Office Administration Department. This allows students to locate correct assignments and examples. Internet students have access to the computer labs in D211 when space is available.***

**ACNT 1303  
Introduction to Accounting I  
(3 credits)**

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. (3 lecture and 1 laboratory hours per week). [CIP52.0302]

**ACNT 1311  
Introduction to Computerized Accounting  
(3 credits)**

Introduction to utilizing the computer and maintaining accounting records, making management decisions,

and processing common business applications with primary emphasis on a general ledger package. (2 lecture and 3 laboratory hours per week). Prerequisite: ACNT 1303. [CIP52.0302]

**HITT 1305**  
**Medical Terminology I**  
(3 credits)

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. (2 lecture and 3 lab hours per week). [CIP51.0707]

**POFI 1301**  
**Computer Applications I**  
(3 credits)

For Non-OFAD Majors  
Overview of computer office applications including current terminology and technology. Introduction to computer hardware, software applications, and procedures. (3 lecture and 1 lab hour per week) [CIP52.0407]

**POFI 1401**  
**Computer Applications I**  
(4 credits)

Overview of computer office applications including current terminology and technology. Introduction to computer hardware, software applications, and procedures. Prerequisite: POFT 1329 or POFT 1429 (3 lecture and 3 lab hours per week) [CIP52.0407]

**POFI 1449**  
**Spreadsheets**  
(4 credits)

Spreadsheet software for business applications. (3 lecture and 3 lab hours per week) [CIP52.0407]

**POFI 2331**  
**Desktop Publishing**  
(3 credits)

In-depth coverage of desktop publishing terminology, text editing, and use of design principles. Emphasis on layout techniques, graphics, multiple page displays, and business applications. (2 lecture and 3 lab hours per week) [CIP52.0407]

**POFI 2401**  
**Word Processing**  
(4 credits)

Word processing software focusing on business applications. Prerequisite: POFT 1329 or POFT 1429. (3 lecture and 3 lab hours per week). [CIP52.0407]

**POFL1305**  
**Legal Terminology**  
(3 credits)

This course presents an overview of the areas of law and legal professions, including spelling, pronunciation, and definition of legal terms. (2 lecture and 3 lab hours per week). [CIP22.0301]

**POFL 2301**  
**Legal Document Processing**  
(3 credits)

This course develops the skills for the production of legal documents. (2 lecture and 3 lab hours per week). [CIP22.0301]

**POFM 1317**  
**Medical Administrative Support**  
(3 credits)

Instruction in medical office procedures including appointment scheduling, medical records creation and maintenance, telephone communications, coding, billing collecting, and third party reimbursement. Prerequisite: Computer Literacy required. (2 lecture and 3 lab hours per week). [CIP51.0716]

**POFM 1380, 2380**  
**Cooperative Education - Medical Administrative Assistant/Secretary**  
(3 credits)

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. (1 lecture and 20 lab hours per week) [CIP51.0716]

**POFT 1301**  
**Business English**  
(3 credits)

Introduction to a practical application of basic language usage skills with emphasis on fundamentals of writing and editing for business. (2 lecture and 3 lab hours per week). [CIP52.0501]

**POFT 1309**  
**Administrative Office Procedures I**  
(3 credits)

Study of current office procedures, duties, and responsibilities applicable to an office environment. (2 lecture and 3 lab hours per week) [CIP52.0401]

**POFT 1329**  
**Beginning Keyboarding I**  
(3 credits)

For Non-OFAD Majors  
Skill development keyboarding techniques. Emphasis on development of acceptable speed and accuracy levels and formatting basic documents. (3 lecture and 1 lab hours per week) [CIP52.0408]

**POFT 1382, 2382, 2383**  
**Cooperative Education - Office Occupations and Clerical Services**  
(3 credits)

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. (1 lecture and 20 lab hours per week) [CIP52.0408]

**POFT 1419**  
**Records & Information Management I**  
(4 credits)

Introduction to basic records information management filing systems including manual and electronic filing. (3 lecture and 3 lab hours per week). [CIP52.0401]

**POFT 1425**  
**Business Math & Machine Applications**  
(4 credits)

Business Math problem-solving skills using office technology. (3 lecture and 3 lab hours per week). [CIP52.0408]

**POFT 1429**  
**Beginning Keyboarding II**  
(4 credits)

Skill development keyboarding techniques. Emphasis on development of acceptable speed and accuracy levels and formatting basic documents. (3 lecture and 3 lab hours per week). [CIP52.0408]

**POFT 2401**  
**Intermediate Keyboarding**  
(4 credits)

A continuation of keyboarding skills emphasizing acceptable speed and accuracy levels and formatting documents. Prerequisite: POFT 1429. (3 lecture and 3 lab hours per week). [CIP52.0408]

**Paralegal** \_\_\_\_\_

*Karen Barnett, Department Chairperson*

**LGLA 1301**  
**Legal Research & Writing**  
(3 credits)

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. (3 lecture hours per week). Prerequisites: READ 0310 and ENGL 0310. [CIP22.0302]

**LGLA 1311**  
**Introduction to Law**  
(3 credits)

This course provides an overview of the law and the legal system. Topics include legal concepts, procedures, terminology and current issues in law. (3 lecture hours per week). Prerequisites: READ 0309 and ENGL 0309. [CIP22.0302]

**LGLA 1342**  
**Federal Civil Litigation**  
(3 credits)

This course presents fundamental concepts and procedures of civil litigation with emphasis on the paralegal's role. Federal Civil Litigation covers litigation from the pre-trial stage to the post-trial phase. Federal law will be emphasized in this course. Prerequisites: READ 0309 and ENGL 0309. [CIP22.0302]

**LGLA 1343****Bankruptcy  
(3 credits)**

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. (3 lecture hours per week) [CIP: 22.0302]

**LGLA 1344****Texas Civil Litigation  
(3 credits)**

This course presents fundamental concepts and procedures of civil litigation with emphasis on the paralegal's role. Texas Civil Litigation covers litigation from the pre-trial stage to the post-trial phase. State law will be emphasized in this course. Prerequisite: READ 0309 and ENGL 0309. [CIP22.0302]

**LGLA 1351****Contract Law  
(3 credits)**

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. The student will learn to define and properly use contract law terminology; locate, describe and analyze sources of law relating to contract law; understand the ethical obligations of the paralegal and draft documents commonly used in contract law. (3 lecture hours per week). Prerequisites: READ 0309 and ENGL 0309. [CIP22.0302]

**LGLA 1353****Wills, Trusts, and Probate Administration  
(3 credits)**

This course presents fundamental concepts of the law of wills, trusts, and probate administration with emphasis on the paralegal's role. (3 lecture hours per week). Prerequisites: READ 0309 and ENGL 0309. [CIP22.0302]

**LGLA 1355****Family Law  
(3 credits)**

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. (3 lecture hours per week). Prerequisites: READ 0309 and ENGL 0309. [CIP22.0302]

**LGLA 1380, LGLA 2381****Cooperative Education (Internship) - Paralegal  
(3 credits)**

The objective of the cooperative education course is to combine the student's classroom learning with work experience. Students must contact the department chair well in advance of taking this course, to arrange a co-op (internship) site. Students should be aware that a co-op (internship) is typically an unpaid experience. (1 lecture & 20 lab hours per week Fall & Spring semester; 25 lab hours per week, Summer semester) Prerequisites: READ 0310, ENGL 0310; LGLA 1301, 1342, 1344, 1353, 1355, 2303, 2313; POFT 1329, POFI 1301. [CIP22.0302]

**LGLA 2303****Torts and Personal Injury law  
(3 credits)**

This course presents fundamental concepts of tort law with emphasis on the paralegal's role. Topics include intentional torts, negligence, and strict liability. (3 lecture hours per week). Prerequisites: READ 0309 and ENGL 0309. [CIP22.0302]

**LGLA 2305****Interviewing and Investigating  
(3 credits)**

Study and development of paralegal skills of interviewing and investigating including communication skills, conducting client and witness interviews, preparation of witness statements, formulating a plan of investigation, techniques for locating persons, conducting investigations in public and private records, locating and working with experts, the rules of evidence as they relate to interviewing and investigating, proper handling of documents and other physical evidence, conducting formal discovery in civil and criminal proceedings and the ethical and professional responsibilities of the practitioner and legal assistant in interviewing and investigative work. (3 lecture hours per week) [CIP22.0302]

**LGLA 2311****Business Organizations  
(3 credits)**

This course presents basic concepts of business organizations with emphasis on the paralegal's role. Topics include law of agency, sole proprietorships, forms of partnerships, corporations and other emerging business entities. The student will learn terminology related to business organizations, the formation and termination of businesses and how to draft documents related to business entities. (3 lecture hours per week) Prerequisites: READ 0309, ENGL 0309. [CIP22.0302]

**LGLA 2313****Criminal Law and Procedure  
(3 credits)**

This course introduces the criminal justice system including procedures from arrest to final disposition, principles of federal and state law, and the preparation of pleadings and motions. (3 lecture hours per week.) Prerequisites: READ 0309 and ENGL 0309. [CIP22.0302]

**LGLA 2323****Intellectual Property  
(3 credits)**

This course presents the fundamentals of intellectual property law, including creation, procurement, preparation, and filing documents related to patents, copyrights, trademarks, and processes of intellectual property litigation with emphasis on the paralegal's role. (3 lecture hours per week) [CIP 22.0302]

**Pharmacy Technician —**

*Rhonda Boone, DC, CPhT, Coordinator*

**PHRA 1205****Drug Classification  
(2 credits)**

This course provides an introduction to the study of disease processes, pharmaceutical drugs abbreviations, classifications, dosages, actions in the body, and routes of administration. (2 lecture hours per week). [CIP51.0805]

**PHRA 1301****Introduction to Pharmacy  
(3 credits)**

This course provides an overview of the qualifications, operational guidelines, and job duties of a pharmacy technician. Topics include definitions of a pharmacy environment, the profile of a pharmacy technician, legal and ethical guidelines, job skills and duties, verbal and written communication skills, professional resources and safety techniques. (3 lecture hours per week). [CIP51.0805]

**PHRA 1309****Pharmaceutical Mathematics I  
(3 credits)**

This course includes reading, interpreting, and solving calculation problems encountered in the preparation and distribution of drugs. It will cover conversion of measurements within the apothecary, avoirdupois, and metric systems with emphasis on the metric system of weight and volume. Topics include ratio and proportion, percentage, dilution and concentration, milliequivalents, units, intravenous flow rates, and solving dosage problems. (3 lecture hours per week). [CIP51.0805]

**PHRA 1313****Community Pharmacy Practice  
(3 credits)**

This course introduces the skills necessary to process, prepare, label, and maintain records of physicians' medication orders and prescriptions in a community pharmacy. It is designed to train individuals in supply, inventory, and data entry. It also includes customer service, count and pour techniques, prescription calculations, drug selection and preparation, over-the-counter drugs, record keeping, stock level adjustment, data input, editing, and legal parameters. (2 lecture and 3 lab hours per week). [CIP51.0805]

**PHRA 1315****Pharmacy Terminology  
(3 credits)**

This course provides a study of word origins and structure through the introduction of prefixes, suffixes, and root words as it relates to a pharmaceutical setting. It focuses on translation and recognition of commonly used pharmacy abbreviations. (3 lecture hours per week). [CIP51.0805]

**PHRA 1349****Institutional Pharmacy Practice  
(3 credits)**

This course is an exploration of the unique role and practice of pharmacy technicians in an institutional pharmacy with emphasis on daily pharmacy operation. Topics include hospital pharmacy organization, work

flow and personnel, medical and pharmaceutical terminology, safety techniques, data entry, packaging and labeling operations, extemporaneous compounding, inpatient drug distribution systems, unit dose cart fills, quality assurance, drug storage, and inventory control. (2 lecture and 3 lab hours per week). [CIP51.0805]

**PHRA 1441**  
**Pharmacy Drug Therapy and Treatment**  
(4 credits)

This course is the study of therapeutic agents, their classifications, properties, actions, and effects on the human body and their role in the management of disease. It provides detailed information regarding drug dosages, side effects, interactions, toxicities, and incompatibilities. (3 lecture and 3 lab hours per week). [CIP51.0805]

**PHRA 1445**  
**Intravenous Admixture and Sterile Compounding**  
(4 credits)

This course is a study of sterile products, legal and regulatory guidelines, hand washing techniques, pharmaceutical calculations, references, safety techniques, aseptic techniques in parenteral compounding, proper use of equipment, preparation of sterile products, and safe handling of antineoplastic drugs. (2 lecture and 4 lab hours per week). Prerequisites: None. [CIP51.0805]

**PHRA 2266**  
**Practicum (or Field Experience)-Pharmacy Technician Assistant**  
(2 credits)

This course provides practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student. (16 externship hours per week). Prerequisites: PHRA 1313. [CIP51.0805]

**Philosophy**

*Christopher Chance, Department Chairperson*  
*Marjorie Nash*

**PHIL 1301**  
**Introduction to Philosophy**  
(3 credits)

A survey course designed to introduce students to some of the more important problems in philosophy and with the methods used to deal with them. Readings from both ancient and modern philosophers will be included. (Three lecture hours per week) Prerequisite: ENGL 0310, READ 0310. [CB38.0101.5112]

**PHIL 1304**  
**Introduction to World Religions**  
(3 credits)

A comparative study of various world religions including Judaism, Christianity, Islam, Hinduism, Buddhism, Confucianism and Taoism (Daoism), Sikhism, Jainism, and Shinto. (3 lecture hours per week) Prerequisite: ENGL 0310, READ 0310 [CB38.0201.5212]

**PHIL 2303**  
**Introduction to Logic**  
(3 credits)

This course will explore the nature and methods of clear and critical thinking and correct reasoning such as deduction, induction, scientific reasoning and fallacies. Prerequisite: ENGL 0310, READ 0310 (3 lecture hours per week) [CB38.0101.5212]

**PHIL 2306**  
**Introduction to Ethics**  
(3 credits)

A philosophical reflection to the basic principles and applications of the moral life in traditional and contemporary views concerning the nature of goodness, happiness, duty and freedom. (3 lecture hours per week) Prerequisite: ENGL 0310, READ 0310. [CB38.0101.5312]

**Physics**

*Dora Devery, Department Chairperson*  
*Joseph Mills*

**PHYS 1301**  
**Essentials of College Physics**  
(3 credits)

This is a survey course for non-majors to study mechanics, heat, electricity, magnetism, light, and nuclear physics. (3 lecture hours per week) Prerequisite: MATH 0312 and READ 0310. [CB 40.0801.5303]

**PHYS 1401**  
**College Physics I**  
(4 credits)

This introductory course continues the study of mechanics, heat, electricity, magnetism, light, and nuclear physics. (3 lecture and 3 laboratory hours per week). Prerequisite: MATH 2412, READ 0310. [CB40.0801.5303]

**PHYS 1402**  
**College Physics II**  
(4 credits)

This introductory course continues the study of mechanics, heat, electricity, magnetism, light, and nuclear physics. (3 lecture and 3 laboratory hours per week). Prerequisite: PHYS 1401. [CB40.0801.5303]

**PHYS 1403**  
**Planetary Astronomy**  
(4 credits)

Introductory planetary astronomy course which includes basic material on the history of astronomy, physics of planetary motion, the nature of light, operation of telescopes, formation of solar system, terrestrial planets, Jovian planets, Kuiper Belt objects, comets, and asteroids. Lab includes observing the stars, nebulae, galaxies, planets, and a variety of exercises in observational astronomy. (3 lecture and 3 lab hours per week) [CB 40.0201.5103]

**PHYS 1404**  
**Stellar & Galactic Astronomy**  
(4 credits)

An introductory course that will concentrate on the origin, life and fate of the stars, star clusters, galaxies, and cosmology. An appropriate laboratory program will include lab experiments, telescope observations, field trips, and Internet research. This is a course for non-science majors who need natural science credit or anyone interested in the study of the universe. (3 lecture and 3 lab hours per week) [CB40.0201.5203]

**PHYS 2425**  
**University Physics I**  
(4 credits)

This course is designed primarily to meet the needs of the pre-engineering student or physics major. Problem solving techniques with the use of calculus re developed in the topics of vectors, kinematics, forces, work and energy, momentum, torque, angular momentum, simple harmonic motion, gravity, properties of solids and fluids, heat and thermodynamics. Prerequisites: READ 0310 and MATH 2413 (3 lecture and 3 lab hours per week) [CB 40.0801.5403]

**PHYS 2426**  
**University Physics II**  
(4 credits)

A continuation of PHYS 2425. The topics covered are vibration and mechanical waves, sound electrostatics, electricity, dc and ac circuits, magnetism and electromagnetism, light, optics, lenses and mirrors, relativity and some quantum physics. Prerequisites: READ 0310 and PHYS 2425 (3 lecture and 3 lab hours per week) [CB 40.0801.5403]

**Polysomnography**

*Georgette Goodwill, Department Chairperson*  
*Daniel Glaze, MD, Medical Director*

**HITT 1305**  
**Medical Terminology I**  
(3 credits)

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. (3 lecture hours per week) Prerequisite: READ 0309 [CIP 51.0707]

**HPRS 1304**  
**Basic Health Profession Skills**  
(3 credits)

A study of the concepts that serve as the foundation for health profession courses, including client care and safety issues, basic client monitoring, and health documentation methods. (2 lecture and 2 lab hours per week). [CIP51.0000]

**PSGT 1205**  
**Neurophysiology of Sleep**  
(2 credits)

This course is an introduction to the history of sleep medicine and the different stages of sleep. Emphasis is on associated wave patterns and collection and utilization of sleep histories. (2 lecture hours per week) [CIP51.0903]

**PSGT 1260**  
**Polysomnography Clinical I**  
**2 credits**

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. (12 clinical hours per week) Corequisite: PSGT-1400. [CIP 51.0903]

**PSGT 1291**  
**Special Topics in Polysomnography**  
**(2 credit)**

Topics address recently identified current events, skills, knowledge, and/or attitudes and behaviors pertinent to the field of polysomnography and relevant to the professional development of the student. (2 lecture hours per week). [CIP 51.0903]

**PSGT 1310**  
**Neuroanatomy and Physiology**  
**(3 credits)**

This course is a study of the anatomy of the human central nervous system. The student will also be introduced to cardiopulmonary structures and function as well as ECG interpretation. (3 lecture hours per week) [CIP51.0903]

**PSGT 1400**  
**Polysomnography I**  
**(4 credits)**

This course is designed to provide both didactic and laboratory training for entry-level personnel in the basics of polysomnographic technology. Students will become familiar with terminology, instrumentation setup and calibration, patient safety and infection control, recording and monitoring techniques, documentation, professional issues, and patient-technologist interactions related to polysomnography technology. (2 lecture and 5 lab hours per week). [CIP51.0903]

**PSGT 1440**  
**Sleep Disorders**  
**(4 credits)**

A discussion of disorders of that affect sleep including insomnias, circadian rhythm disorders, narcolepsy, sleep disordered breathing, movement and neuromuscular disorders, and medical and psychiatric disorders. (3 lecture and 2 lab hours per week) [CIP51.0903]

**PSGT 2205**  
**Sleep Scoring & Staging**  
**(2 credits)**

This course provides the student with the skill to score and stage sleep studies: prepare comprehensive sleep records; identify effects of medication, age, gender, sleep/wake schedules and sleep habits and other relevant factors. Evaluate pertinent parameters in sleep disorder studies. Prerequisite: PSGT 1400. (4 lab hours per week) [CIP 51.0903]

**PSGT 2250**  
**Infant and Pediatric Polysomnography**  
**(2 credit)**

This course is an introduction to the sleep patterns of the infant and pediatric population. the student will be provided with opportunities to perform a pediatric study. (2 lecture hours per week). [CIP51.0903]

**PSGT 2660**  
**Polysomnography Clinical II**  
**(6 credits)**

This course provides the student with patient contact in a sleep lab. The student will have the opportunity to observe, perform (under supervision), and evaluate sleep studies. (24 clinical hours per week) Prerequisite: PSGT 1260. Corequisite: PSGT 2411. [CIP51.0903]

**PSGT 2661**  
**Polysomnography Clinical III**  
**(6 credits)**

This course provides the student with patient contact in a sleep lab. The student will have the opportunity to observe, perform (under supervision), and evaluate sleep studies. (24 clinical hours per week) Prerequisite: PSGT 2411. [CIP51.0903]

**PSGT 2411**  
**Polysomnography II**  
**(4 credits)**

Development of skills for sleep scoring and staging. Consideration of medication effects, age, gender, sleep/wake schedules, changes in sleep habits, and other pertinent factors. Students will evaluate parameters such as total record time, total sleep time, sleep efficiency, total wake time, wake after sleep onset, wake after sleep offset, sleep latency, REM latency, stage 1-3, REM sleep, awakenings, arousals, EEG, sleep disordered breathing, leg movements, and cardiac patterns. (2 lecture and 5 lab hours). Prerequisites: PSGT 1400, Corequisite: PSGT 1260. [CIP51.0903]

## Process Technology

*Mark Demark, Department Chairperson*

**CTEC 1401**  
**Applied Petrochemical Technology (Physics)**  
**(4 credits)**

This course teaches students the basic principles of physics and their application in process facilities. Included are: fundamental units of measurement related to length, time, mass, pressure, temperature, flow, and level. The properties of solids, liquids, gases, and flowing fluids are reviewed with emphasis placed on how these properties relate to the operation of process equipment. Students are introduced to the gas laws, principles of heat transfer, sensible and latent heat electricity and magnetism. (3 lecture hours, 2 lab hours per week). [CIP410301]

**CTEC 2480**  
**Internship - Process Technology**  
**(4 credits)**

An intermediate or advanced course with lecture and work-based instruction that helps students gain practical experience in the discipline, enhance skills, and integrate knowledge. This course may be substituted for PTAC 1454. Indirect supervision is provided by the work supervisor while the lecture is provided by the college faculty or by other individuals under the supervision of the educational institution.

Cooperative education may be a paid or unpaid learning experience. Availability of this course depends on positions in industry. (1 lecture hour, 21 co-op hours per week). [CIP410301]

**PTAC 1302**  
**Introduction to Process Technology**  
**(3 credits)**

An introduction to process operations in refineries and chemical plants. The course includes: process technician duties, responsibilities, equipment, and expectations; plant organizations; review of applied mathematics; applied physics; applied chemistry; plant process and utility systems; maintenance expectations for process technicians; communication skills; quality statistics, economics, and problem solving. A discussion of physical and mental requirements of the process technician, family, and career considerations is included. (2 lecture hours, 2 lab hours per week). [CIP410301]

**PTAC 1308**  
**Safety, Health, and Environment**  
**in the Process Industry**  
**(3 credits)**

This course focuses on the fire triangle, firefighting for process technicians; hazards of air, steam, water, electricity, light hydrocarbons, operating hazards, properties of hazardous materials, personal protective equipment, engineering and administrative controls, testing equipment; and regulatory review—Federal, state, local. (3 lecture hours, 1 lab hour per week) [CIP410301]

**PTAC 1332**  
**Process Instrumentation I**  
**(3 credits)**

This course introduces the student to the varied instruments and instrument systems employed in the refining and chemical industry. It includes primary variables: flow, temperature, pressure, level; analyzers, piping and instrument symbology and diagrams, hardware, control fired equipment, separation equipment; troubleshooting. (2 lecture hours, 2 lab hours per week) [CIP410301]

**PTAC 1410**  
**Process Technology I (Equipment)**  
**(4 credits)**

This course reviews the fundamentals and operating considerations of process equipment and processes including: valves, piping, vessels, positive displacement and centrifugal pumps, positive displacement and centrifugal compressors, steam turbines, motors, and heat transfer. This course develops theory as well as mechanics of plant equipment. (3 lecture hours, 2 lab hours per week) [CIP410301]

**PTAC 1454**  
**Industrial Processes**  
**(4 credits)**

This course examines the types of processes employed in petroleum refining and chemical operations. Included are crude distillation, coking, fluid catalytic cracking, hydrocracking, desulfurization, reforming, alkylation, polymerization, treating, olefin

production, and many other common processes. (3 lecture hours, 2 lab hours per week) Prerequisite: PTAC 2420. [CIP410301]

#### PTAC 2314

##### Quality (including SPC and Economics) (3 credits)

Students are taught advanced quality techniques employed by industry to remain competitive in today's global economy. The widespread use of statistical techniques is stressed. Students learn principles of data handling, plotting, flow charting, histograms, standard deviation, control charts, cause and effect diagrams, etc. Principles of economics, as they affect unit, plant and corporate realizations are explored to give the student a foundation in the factors which affect business profitability. This course is only offered on-line. (2 lecture hours, 2 lab hours per week) [CIP410301]

#### PTAC 2420

##### Process Technology II (Systems) (4 Credits)

This course reviews the unit operations employed in the refining and chemical industry including: distillation; absorption; adsorption; reactions; refrigeration; cooling systems, utilities, and auxiliary systems. (3 lecture hours, 2 lab hours per week) Prerequisite: PTAC 1302. [CIP410301]

#### PTAC 2436

##### Process Instrumentation II (4 credits)

This course prepares students to recognize and understand instrumentation and controls as applied to process operations. Process control systems for basic unit operations such as furnace/boiler firing, distillation, and reactors are described and explained with actual instrument-operations including manual, auto, proportional, integral, derivative modes. Feedback and feed forward control systems, cascade, split range, ratio control systems are covered. Process analyzers, computer, and programmable logic controllers are described. (3 lecture hours, 2 lab hours per week) Prerequisites: PTAC 1332. [CIP410301]

#### PTAC 2438

##### Process Technology III (Operations) (4 credits)

This course will review process plant operations with emphasis on the elements of effective operations, routine technician duties, startups, shutdowns, emergency and non-routine operations, procedure writing, team and communications skills, process economic considerations, and commissioning new and revamped process facilities. Students work with operating process model and tour the college cogen/refrigeration facility. (3 lecture hours, 2 lab hours per week) Prerequisites: PTAC 2420. [CIP410301]

#### PTAC 2446

##### Process Troubleshooting (4 credits)

This course introduces students to different types of troubleshooting techniques and describes how these methods are used to solve problems in

various process operations. Teams of students are given field problems which they approach from both a technical and practical viewpoint. The text includes specific problems which are presented in a comprehensive and easy to understand style. (3 lecture hours, 2 lab hours per week) Prerequisite: PTAC 2420 [CIP410301]

#### PTRT 1407

##### Production Methods (4 credits)

An introduction to the different methods associated with oil and gas production: natural flow and artificial lift. The student will also develop skills and competency in lease layout and specific recovery methods such as water flooding, chemical flooding, thermal processes, and CO<sub>2</sub> injections. Prerequisites: PTAC 1302 (3 lecture and 2 lab hours per week) [CIP150903]

#### PTRT 1491

##### Special Topics in Petroleum Technology (4 credits)

Building on the material learned in PTRT 1407, this course reviews down-hole and surface equipment in more detail and covers production problems, troubleshooting and workover operations. Also covered is natural gas and cogeneration, along with new technology for oil and gas production. (3 lecture and 2 lab hours per week) Prerequisite: PTRT 1407 [CIP15.0903]

#### SCIT 1414

##### Applied General Chemistry (4 credits)

Industrial chemistry introduces students to the fundamentals of chemistry, particularly as they apply to process system operations. Topics covered include atomic structure, elements, compounds, mixtures, equations, material balances, inorganic and organic process reactions. Particular emphasis is placed on hydrocarbon chemistry—the many families that are found in crude oil and natural gas. Included are typical process reactions such as alkylation, hydrogenation, polymerization, olefins production, etc. (3 lecture hours, 3 lab hours per week) [CIP400501]

## Psychology

*Traci Elliott, Department Chairperson  
Nancey Lobb, Jean Raniseski*

#### PSYC 1300

##### Learning Strategies (3 credits)

This course provides an introduction to basic learning theories and strategies. Emphasis will be placed on identifying individual learning styles and developing the necessary skills for college success. (3 lecture hours per week) [CB42.2701.5125]

#### PSYC 2301

##### General Psychology (3 credits)

This course gives students a broad overview of the field and introduces them to fundamental theories of behavior. Emphasis will be placed on experimental research; cognitive, social and emotional development; neuroscience; sensation and perception; motivation; and identity. (3 lecture hours per week) Prerequisites: READ 0310 and ENGL 0310. [CB42.0101.5125]

#### PSYC 2302

##### Applied Psychology (3 credits)

This course is a survey of the applications of psychological knowledge and methods in such fields as business, industry, education, medicine, law enforcement, social work, government, and other areas of life. (3 lecture hours per week) Prerequisites: READ 0310 and ENGL 0310. [CB42.0101.5225]

#### PSYC 2306

##### Human Sexuality (3 credits)

This course involves the study of psychological, sociological, and physiological aspects of human sexuality. (3 lecture hours per week) Prerequisites: READ 0310 and ENGL 0310. [CB 42.0101.5325]

#### PSYC 2307

##### Adolescent Psychology (3 credits)

This course explores physical, cognitive, social, and emotional factors that impact adolescent development. Emphasis will be placed on the transition between adolescence and early adulthood. (3 lecture hours per week) Prerequisites: READ 0310 and ENGL 0310. [CB42.2703.5125]

#### PSYC 2308

##### Child Growth and Development (3 credits)

This course explores physical, cognitive, social, and emotional development from conception through middle childhood. Emphasis will be placed on factors which influence children's growth and development. (3 lecture hours per week) Prerequisites: READ 0310 and ENGL 0310. [CB42.2703.5125]

#### PSYC 2311

##### Adult Development (3 credits)

This course focuses on physical, cognitive, social, and emotional factors that impact adult development. Emphasis will be placed on the transition between early adulthood and late adulthood, followed by the inevitable transition to death. (3 lecture hours per week) Prerequisites: READ 0310 and ENGL 0310. [CB42.2703.5125]

#### PSYC 2314

##### Life-Span Growth & Development (3 credits)

This course provides an overview of physical, cognitive, social, and emotional development from conception through death. Emphasis will be placed on factors that impact each stage of life. (3 lecture hours per week) Prerequisites: READ 0310 and ENGL 0310 [CB42.2703.5125]

**PSYC 2315**  
**Psychology of Adjustment**  
**(3 credits)**

This course is a study of the processes involved in adaptation of individuals to their personal and social environments. Emphasis will be placed on the principles of behavior which underlie positive and healthy adjustment to everyday life. (3 lecture hours per week) Prerequisites: READ 0310 and ENGL 0310. [CB42.0101.5625]

**PSYC 2316**  
**Psychology of Personality**  
**(3 credits)**

This course investigates complex determinants of personality. Emphasis will be placed on the main theories and assessments of personality. (3 lecture hours per week) Prerequisites: READ 0310 and ENGL 0310. [CB42.0101.5725]

**PSYC 2317**  
**Statistical Methods in Psychology**  
**(3 credits)**

This course introduces students to measurements and formulas psychologists use to explain human behavior. Emphasis will be placed on measures of central tendency and variability, statistical inference, correlation, and regression. (3 lecture hours per week) Prerequisites: PSYC 2301 and MATH 0310. [CB42.0101.5225]

**PSYC 2319**  
**Social Psychology**  
**(3 credits)**

This course involves the study of individual behavior within the social environment. Emphasis will be placed on conformity, obedience, group influence, attitude formation and change, and interpersonal relationships. (3 lecture hours per week) Prerequisites: READ 0310 and ENGL 0310. [CB42.2707.5125]

**PSYC 2389**  
**Academic Cooperative**  
**(3 credits)**

This course is an instructional program designed to integrate on-campus study with practical, hands-on experience in psychology. It may involve seminars, and individual projects with specific goals and objectives in the study of human behavior and/or social institutions. Prerequisites: READ 0310 and ENGL 0310. [CB45.0101.5125]

**Reading**

*Lynda Vern, Department Chairperson*

*NOTE: Basic reading skills are taught in 0309, 0310 and 0312. These courses benefit students needing additional preparation for college-level work and those desiring only to improve their reading ability. READ0309 and/or0310 may be required by state law for students whose scores on the THEA or an approved alternate test fall below the established cutoff levels.*

**READ 0309**  
**Developmental Reading I**  
**(3 credits)**

READ 0309 is an introductory course designed

to prepare students to more successfully deal with assignments in college classes. This course emphasizes reading comprehension, vocabulary development, and study skills. Beginning instruction in the THEA (formerly TASP) reading skills is included. (3 lecture and 1 laboratory hour per week). [CB32.0108.5212]

**READ 0310**  
**Developmental Reading II**  
**(3 credits)**

READ 0310 focuses on the teaching of reading skills students need to perform effectively in college courses. This course includes a thorough study of the THEA (formerly TASP) reading skills, emphasizing the ability to comprehend college textbooks. (3 lecture and 1 laboratory hour per week). [CB32.0108.5212]

**READ 0312**  
**Developmental Reading III**  
**(3 credits)**

READ 0312 is a review course for students who have completed READ 0310 with a grade of A,B,C or D or who have passed the THEA or a state approved alternate test. It is designed to reinforce the reading skills college students need to succeed in their courses. This course includes a review and reinforcement of the THEA (formerly TASP) skills.

**NOTE:** If a D is made in READ 0310, college ready status in reading may be earned by taking READ 0312 and earning a C or better in the course. (3 lecture hours per week). Prerequisite: READ 0310 or the TSI standard in Reading. [CB32.0108.5212]

**Respiratory Care**

*Diane Flatland, Department Chairperson*  
*Marby McKinney*  
*Wayne Hite, MD, Medical Director*

**RSPT 1166**  
**Practicum - Respiratory Care Therapist**  
**(1 credit)**

This is an introductory course to the hospital setting. Students will be able to observe and perform the skills taught in adjoining courses. (8 laboratory per week) [CIP 51.0908]

**RSPT 1191**  
**Special Topics in Respiratory Care (Management)**  
**1 credit**

This course introduces the students to current issues facing the Profession of Respiratory Care. In addition to the activities of the three major professional sponsors - the AARC, the NBRC and the Co ARC are discussed. Students will select current issues from the professional literature and develop presentations covering the topics of accreditation, credentialing, management, education, and clinical practice. (4 lab hours per week). [CIP 51.0908]

**RSPT 1207**  
**Cardiopulmonary Anatomy and Physiology**  
**(2 credits)**

This course is designed to introduce the student to the physiology of the cardiovascular, renal, and pulmonary systems. The student also be comes acquainted with the terminology used in respiratory

physiology. (2 lecture and 1 laboratory hour per week) Prerequisite: READ 0309. [CIP51.0908]

**RSPT 1266**  
**Respiratory Care Practicum I**  
**(2 credit)**

This course gives students the opportunity to perform and to demonstrate clinically the knowledge gained in parallel courses. Setups, operation, and troubleshooting involved with the more sophisticated equipment are also included. (16 laboratory hours per week) Requires departmental approval. [CIP51.0908]

**RSPT 1267**  
**Respiratory Care Practicum II**  
**(2 credits)**

This course provides the student with the opportunity to apply skills necessary for managing and monitoring the patient-ventilator system in the intensive care setting. It includes attending physician rounds, presentation of patient assessments and respiratory care plan. (16 laboratory hours per week). Requires departmental approval. [CIP51.0908]

**RSPT 1310**  
**Respiratory Care Procedures I**  
**(3 credits)**

An in-depth study of basic respiratory concepts, theories and techniques needed in the education of the polysomnography student. Application of these procedures are instructed and performed in the laboratory and in the clinical area under supervision. (2 lecture and 2 lab hours per week) [51.0908]

**RSPT 1325**  
**Respiratory Care Sciences**  
**(3 credits)**

Provides an introduction to basic sciences and mathematics needed in respiratory care. Topics covered include scientific measurement, chemistry, basic math, physics, and computer applications. (3 lecture hours per week) Prerequisite: READ 0309. [CIP51.0908]

**RSPT 1331**  
**Respiratory Care Fundamentals II**  
**(3 credits)**

Provides a foundation for the development of knowledge and skills for respiratory care including lung expansion therapy, postural drainage and percussion, artificial airways, manual resuscitation devices and suctioning. (2 lecture and 3 laboratory hours per week) Requires departmental approval. [CIP51.0908]

**RSPT 1429**  
**Respiratory Care Fundamentals I**  
**(4 credits)**

Provides a foundation for the development of knowledge and skills for respiratory care including history, medical terms/symbols, medical/legal, infection control, vital signs, physical assessment, medical gas therapy, oxygen analyzers, and humidify/aerosol therapy. Application of these procedures are performed in the laboratory under supervision. (3 lecture and 3 laboratory hours per week) Requires departmental approval. [CIP51.0908]

**RSPT 2131****Clinical Simulations for Respiratory Care  
(1 credit)**

The theory and history of clinical simulation examinations. Topics include the construction types, scoring, and mechanics of taking the exam along with practice in taking computerized simulations, and basic concepts of computer usage. (2 laboratory hours per week) Prerequisites: All previous respiratory care courses or permission of the Chairperson. [CIP51.0908]

**RSPT 2135****Pediatric Advanced Life Support  
(1 credit)**

A comprehensive course designed to develop the cognitive and psychomotor skills necessary for resuscitation of the infant and child. Strategies for preventing cardiopulmonary arrest and identification of high-risk infants and children will be presented. (3 laboratory hours per week) Requires departmental approval. [CIP51.0908]

**RSPT 2166****Respiratory Care Practicum V  
(1 credit)**

This course is designed for the student to rotate through specialty areas including the pulmonary function laboratory, hyperbaric medicine, sleep studies, emergency room, bronchoscopy, intubation, and EKG rotations. (8 laboratory hours per week). Requires departmental approval. [CIP51.0908]

**RSPT 2210****Cardiopulmonary Diseases I  
(2 credits)**

A discussion of pathogenesis, pathology, radiological diagnosis, history, prognosis, manifestations, treatment, and detection of cardiopulmonary diseases. (2 lecture and 1 laboratory hour per week) Requires departmental approval. [CIP51.0908]

**RSPT 2239****Advanced Cardiac Life Support  
(2 credits)**

A comprehensive course designed to develop the cognitive and psychomotor skills necessary for resuscitation of the adult. Strategies for managing and stabilizing the cardiopulmonary arrested patient will be included. Recognizing and interpreting EKG and their treatment, IV insertion and phlebotomy will be emphasized. (1 lecture and 4 laboratory hours per week) Requires departmental approval. [CIP51.0908]

**RSPT 2266****Respiratory Care Practicum III  
(2 credits)**

In this course the student applies all respiratory concepts related to patient care to demonstrate experience as a practicing therapist with the correlation of advanced clinical and technological concepts. (16 laboratory hours per week) Requires departmental approval. [CIP51.0908]

**RSPT 2267****Respiratory Care Practicum IV  
(2 credits)**

This in-depth exposure to respiratory care and ventilator management with emphasis on neonatal and pediatric therapy. Case studies and follow-ups are presented. (16 laboratory hours per week) Requires departmental approval. [CIP51.0908]

**RSPT 2305****Pulmonary Diagnostics  
(3 credits)**

The theories and techniques involved in pulmonary function testing diagnostics with emphasis on blood gas theory and analysis, quality control, oximetry, and capnography. (2 lecture and 3 laboratory hours per week) Requires departmental approval. [CIP51.0908]

**RSPT 2310****Cardiopulmonary Disease II  
(3 credits)**

This course is a continuation of cardiopulmonary diseases. (2 lecture and 2 laboratory hours per week) Requires departmental approval. [CIP51.0908]

**RSPT 2314****Mechanical Ventilation II  
(3 credits)**

This course is a continuation of mechanical ventilation designed to provide the student with the opportunity to set up, operate, and troubleshoot various volume ventilators on the market today. Emphasis will be placed on building skills needed to work with volume and pressure ventilators. (2 lecture and 2 laboratory hours per week) Requires departmental approval. [CIP51.0908]

**RSPT 2317****Respiratory Care Pharmacology  
(3 credits)**

A study of pharmacological principles/practices of drugs which affect the cardiopulmonary systems. Emphasis on classification, route of administration, dosages/calculations, and interaction of the autonomic nervous system. (3 lecture hours per week) Requires departmental approval. [CIP51.0908]

**RSPT 2353****Neonatal/Pediatric Cardiopulmonary Care  
(3 credits)**

This course explores the care of the pediatric patient with cardiopulmonary disease. Cardiopulmonary anatomy and physiology, fetal development, diseases, and equipment and therapeutic techniques used in treating these diseases are covered. (3 lecture hours per week) Requires departmental approval. [CIP51.0908]

**RSPT 2355****Critical Care Monitoring  
(3 credits)**

This course is designed to familiarize the student with techniques used clinically to assess a patient both subjectively and objectively. It also introduces the

student to invasive monitoring systems used in the critical care setting such as Swan-Ganz catheterization, CVP and arterial lines, intracranial pressure monitoring, chest drainage, and counterpulsation. (3 lecture hours per week) Requires departmental approval. [CIP51.0908]

**RSPT 2414****Mechanical Ventilation I  
(4 credits)**

Preparation to conduct the therapeutic procedures to achieve adequate, spontaneous, and artificial ventilation with emphasis on ventilator classification, methods, principles, and operational characteristics. Also included are the indications, complications, and physiologic effects/principles of mechanical ventilation. (3 lecture and 2 laboratory hours per week) Requires departmental approval. [CIP51.0908]

**ROTC Air Force \_\_\_\_\_  
(Reserve Officer Training Corps)**

*Admissions & Academic Advising Office*

**AFSC 1201, 1202****Foundations of the USAF I, II  
(2 Credits) (1-1)**

Overall roles and missions of the USAF; career fields available. Emphasis on military customs and courtesies, appearance standards, core values, written and personal communication. Introduction to American military history. (1 lecture and 2 lab hours per week) [CIP 28.0101.0099]

**AFSC 2201, 2202****Evolution of Air Power I, II  
(2 credits) (1-1)**

Key historical events and milestones in the development of air power as a primary instrument of United States national security. Core values and competencies of leaders in the United States Air Force. Tenets of leadership and ethics. (1 lecture and 2 lab hours per week) [CIP 28.0101.0099]

**Sociology \_\_\_\_\_**

*Traci Elliott, Department Chairperson  
Gerald Crane, Jean Raniseski*

**SOCI 1301****Introductory Sociology  
(3 credits)**

This course presents a scientific examination of human social life, the unique social order of groups, and the products of living in society. Emphasis will be placed on social interaction patterns, group processes, and established institutions. (3 lecture hours per week) Prerequisites: READ 0310 and ENGL 0310. [CB45.1101.51 25]

**SOCI 1306**  
**Social Problems**  
**(3 credits)**

This course includes scientific examination of conditions that are disruptive to society today, those seen as problematic for society as a whole, and those that represent violations of the norms in society. Emphasis will be placed on population, poverty, social minorities, mass society, delinquency, crime, drugs, sexual deviance, disorganization of family, education, and religion. (3 lecture hours per week) Prerequisites: READ 0310 and ENGL 0310. [CB45.1101.5225]

**SOCI 2301**  
**Marriage and the Family**  
**(3 credits)**

This course is a sociological examination of marriage and family life. Emphasis will be placed on issues associated with courtship, mate selection, marriage adjustment, and parenting in modern American society. (3 lecture hours per week) Prerequisites: READ 0310 and ENGL 0310. [CB45.1101.5425]

**SOCI 2306**  
**Human Sexuality**  
**(3 credits)**

This course involves the study of psychological, sociological, and physiological aspects of human sexuality. (3 lecture hours per week) Prerequisites: READ 0310 and ENGL 0310 [CB42.0101.5325]

**SOCI 2319**  
**Minority Studies**  
**(3 credits)**

This course provides an introduction to multi-cultural and multi-ethnic diversity within the United States. Emphasis will be placed on the patterns of discrimination, prejudice, educational and healthcare disparities, and crime. (3 lecture hours per week) Prerequisites: READ 0310 and ENGL 0310. [CB45.1101.53 25]

**SOCI 2326**  
**Social Psychology**  
**(3 credits)**

This course involves the study of individual behavior within the social environment. Emphasis will be placed on conformity, obedience, group influence, attitude formation and change, and interpersonal relationships. (3 lecture hours per week) Prerequisites: READ 0310 and ENGL 0310. [CB42.2707.5125]

**SOCI 2336**  
**Criminology**  
**(3 credits)**

This course includes current theories and empirical research pertaining to crime and criminal behavior. Emphasis will be placed on its causes, methods of prevention, systems of punishment, and rehabilitation. (3 lecture hours per week) Prerequisites: READ 0310 and ENGL 0310. [CB45.0401.5125]

**SOCI 2339**  
**Juvenile Delinquency**  
**(3 credits)**

This course will review the nature, extent, and causes of juvenile delinquency; youthful offenders and their

career patterns; institutional controls; and correctional programs. (3 lecture hours per week) Prerequisites: READ 0310 and ENGL 0310. [CB45.0401.5125]

**SOCI 2340**  
**Drug Use & Abuse**  
**(3 credits)**

This course involves the study of the use and abuse of drugs in today's society. It will include physiological, sociological, and psychological factors. (3 lecture hours per week) Prerequisites: READ 0310 and ENGL 0310. [CB51.1504.52 16]

**SOCI 2389 Academic Cooperative (3 credits)**

This course is part of an instructional program designed to integrate on-campus study with practical, hands-on experience in sociology. It may involve seminars and independent projects with specific goals and objectives for the study of human behavior and institutions. Prerequisites: READ 0310 and ENGL 0310. [CB45.0101.5125]

**Spanish**

*Amalia D. Parra, Department Chairperson*  
*Saul Olivares*

*Students from a Spanish speaking background and those with two or more years of high school Spanish should take the departmental online placement test on the departmental website to determine at which level to begin Spanish.*

**SPAN 1300**  
**Beginning Spanish Conversation I**  
**(3 credits)**

This course provides basic practice in comprehension and production of spoken Spanish. The student will communicate in Spanish on a limited range of topics through oral and written exercises that support the conversational objective. (3 lecture hours per week) [CB16.0905.5413]

**SPAN 1411**  
**Elementary Spanish I\***  
**(4 credits)**

Fundamental skills in listening, speaking, reading, and writing. Includes basic vocabulary, grammatical structures and culture. (3 lecture and 2 laboratory hours per week). [CB16.0905.5113]

**SPAN 1412**  
**Elementary Spanish II\***  
**(4 credits)**

Fundamental skills in listening, speaking, reading, and writing. Includes basic vocabulary, grammatical structures and culture.. (3 lecture and 2 laboratory hours per week). Prerequisite: SPAN 1411 with grade C or above or the Departmental Online Placement Test. [CB16.0905.5113]

**SPAN 2289, 2389**  
**Academic Cooperative**  
**(2, 3 credits)**

An instructional program designed to integrate on-campus study with practical hands-on work experience. In conjunction with class seminars,

the individual student will set specific goals and objectives in the study of Spanish language and literature. (2, 3 lecture hours and 12, 20 practicum hours per week ) [CB 24.0103.5212]

**SPAN 2306**  
**Intermediate Spanish Conversation**  
**(3 credits)**

Basic practice in comprehension and production of the spoken language. (3 lecture hours per week) [CB 16.0905.5413]

**SPAN 2311**  
**Intermediate Spanish I\***  
**(3 credits)**

Review and application of skills in listening, speaking, reading, and writing. Emphasizes conversation, vocabulary acquisition, reading, composition and culture. (3 lecture and 1 hour per week). Prerequisite: SPAN 1412 with grade C or above or the Departmental Online Placement Test. [CB16.0905.5213]

**SPAN 2312**  
**Intermediate Spanish II\***  
**(3 credits)**

Review and application of skills in listening, speaking, reading, and writing. Emphasizes conversation, vocabulary acquisition, reading, composition and culture. (3 lecture and 1 laboratory hours per week). Prerequisite: SPAN 2311 or the Departmental Online Placement Test. [CB16.0905.5213]

**SPAN 2315**  
**Spanish for Native/Heritage Speakers II**  
**(3 credits)**

Review and application of skills in reading and writing. Emphasizes vocabulary acquisition, reading, composition, and culture. Designed for the individuals with oral proficiency in Spanish and considered equivalent to SPAN 2312. (3 lecture hours per week) Prerequisite: Departmental Online Placement Test. [CB16.0905.5213]

**SPAN 2321**  
**Introduction to Spanish Literature I (Iberian)**  
**(3 credits)**

Representative readings. (3 lecture hours per week). Prerequisite: SPAN 2312 or the Departmental Online Placement Test. [CB16.0905.5313]

**SPAN 2322**  
**Introduction to Spanish Literature II (Iberian)**  
**(3 credits)**

Representative readings. (3 lecture hours per week) [CB 16.0905.5313]

**SPAN 2323**  
**Introduction to Latin American Literature**  
**(3 credits)**

Representative readings. (3 lecture hours per week) [CB 16.0905.5313]

**SPAN 2324**  
**Spanish Culture**  
**(3 credits)**

Representative readings. (3 lecture hours per week) [CB 16.0905.5313]

## Speech

C. Jay Burton, Department Chairperson  
Earnest Burnett, Sara Mangat, Bill Waggoner

### SPCH 1311

#### Fundamentals of Speech (3 credits)

This course consists of the study of the importance of speech as an aid on social adjustment; the improvement of articulation and pronunciation; the study of the use of bodily activity and its relation to effective speaking; vocabulary development; the study of the general ends of speech; and preparation toward the achieving of these ends. (3 lecture hours per week). Prerequisite: READ 0310. [CB23.1304.5112]

### SPCH 1315

#### Public Speaking (3 credits)

This course concentrates on the methods of organization and the techniques of delivery of the platform speech, with emphasis on explanation and persuasion. The course includes a study of group methods of problem solving and parliamentary procedures. The student must have the approval of the department chairperson. (3 lecture hours per week). Prerequisite: READ 0310. [CB23.1304.5312]

### SPCH 1318

#### Interpersonal Communication (3 credits)

This course presents theory, examples, and participation in exercises in order to improve effective one-to-one and small group communication. (3 lecture hours per week). Prerequisites: READ 0310 and ENGL 0310. [CB23.1304.5412]

### SPCH 1321

#### Business Speaking (3 credits)

Theory and practice of communication as applied to business and professional situations. The course will analyze trends in business communication and provide practical application of selected methods. (3 lecture hours per week). Prerequisite: READ 0310. [CB23.1304.5212]

### SPCH 2335

#### Argumentation and Debate. (3 credits)

Theory and practice in argumentation and debate including analysis, reasoning, organization, strategy, and refutation. (3 lecture hours per week). Prerequisite: READ 0310 [CB23.1304.5912]

### SPCH 2341

#### Oral Interpretation (3 credits)

This course presents the study of platform interpretation of literature. The course emphasizes improvement in voice, pronunciation, and enunciation for interpreting lyric poetry, narrative prose and poetry, the descriptive essay monologue, and dramatic scenes. This course is particularly recommended for English and elementary majors. (3 lecture hours per week). Prerequisite: READ 0310. [CB23.1304.5712]

## Sports and Human Performance

Bonny Johnson, Department Chairperson  
Bryan Alexander, Don Childs, Gary Coffman, Jennifer Hightower, Jason Schreiber

### Activity Courses

The same activity course may be applied twice toward degree requirements if taken during different semesters. Students are strongly advised to research the transferability of repeated course before enrollment. Any course in the ranges 1100-1150 and 2100-2150 are under [CB36.0108.5123]

### PHED 1100, PHED 1110

#### Individual and Dual Sports - Tennis (1 credit)

This course provides instruction and participation in tennis in order to develop the student's fitness, skills, knowledge, and appreciation.(3 laboratory hours per week).

### PHED 1102, PHED 1112

#### Individual and Dual Sports - Karate (1 credit)

This course provides instruction and participation in karate in order to develop the student's fitness, skills, knowledge, and appreciation. (3 laboratory hours per week).

### PHED 1103, PHED 1113

#### Individual and Dual Sports-Racquetball (1 credit)

This course provides instruction and participation in racquetball in order to develop the student's fitness, skills, knowledge, and appreciation. (3 laboratory hours per week).

### PHED 1106, PHED 1116

#### Individual and Dual Sports - Jogging (1 credit)

This course provides instruction and participation in jogging in order to develop the student's fitness, skills, knowledge, and appreciation. (3 laboratory hours per week).

### PHED 1108, PHED 1118

#### Individual and Dual Sports - Adaptive Physical Activity (1 credit)

This course is for students who, for medical reasons, need individual attention concerning their physical activity. Activities will be varied according to individual needs as determined by instructor, student, and student's physician. This course may be repeated once for credit. (3 laboratory hours per week).

### PHED 1109, PHED 1119

#### Individual and Dual Sports - Defensive Measures for Women (1 credit)

This course provides instruction and participation in the areas of crime victimization, basic defensive measures, firearms familiarization and related laws. (3 laboratory hours per week).

### PHED 1120, PHED 1121

#### Volleyball (1 credit)

This course consists of instruction and participation in both beginning and advanced volleyball. (3 laboratory hours per week).

### PHED 1122, PHED1123

#### Physical Fitness and Weight Training (1 credit)

This course includes a study of basic fundamental skills and techniques of an overload, strength, and conditioning program. (3 laboratory hours per week)

### PHED 1124, PHED 1130

#### Fundamentals of Movement - Aerobic Dance (1 credit)

This course provides instruction and participation in aerobic dance, and it includes a brief study of the history and philosophy of the dance. (3 laboratory hours per week).

### PHED 1132, PHED 1133

#### Bowling (1 credit)

This course meets the needs of both the beginning and the advanced bowler. After a four-week instruction period, a class league forms with students receiving experience in league etiquette, procedures, scoring, etc. (3 laboratory hours per week).

### PHED 1134, PHED 1136

#### Aerobic Exercise (1 credit)

This course consists of a planned program of exercise to provide a condition of fitness and figure improvement through increased cardio-vascular activity and large muscle exercise. (3 laboratory hours per week).

### PHED 1135, PHED 1137

#### Hi-Lo/Step/Cardio Dance (1 credit)

This course consists of a planned program that utilizes Hi-Lo Aerobics, Step Aerobics and Cardio-Dance in an effort to provide improvement in overall aerobic fitness through increased cardio respiratory activity and large muscle exercise. (3 laboratory hours per week).

### PHED 1138, PHED 1148

#### Fitness Walking (1 credit)

This course provides instruction and participation in powerwalking in order to develop the student's fitness, skills, knowledge, and appreciation of the sport. (3 laboratory hours per week)

### PHED 1139, PHED 1149

#### Golf (1 credit)

This course provides instruction and participation in golf in order to develop the student's fitness, skills, knowledge, and appreciation of the sport. (3 laboratory hours per week)

### PHED 1140, PHED 2140

#### Pilates (1 credit)

This course consists of a planned program that uses the Pilates method in an effort to improve the individual's core strength. This unique method of body conditioning will strengthen and tone muscles, improve posture and provide better flexibility and balance.(3 laboratory hours per week).

### PHED 1141, PHED 1142

#### Team Sports - Wallyball (1 credit)

The course includes class instruction and participation

in the game of wallyball, a form of volleyball on the racquetball court. (3 laboratory hours per week).

**PHED 1143, PHED 1144**

**Team Sports - Volleyball and Softball.  
(1 credit)**

This course includes class instruction and participation in volleyball and softball. (3 laboratory hours per week).

**PHED 1145**

**Horsemanship  
(1 credit)**

This course is for students who are interested in learning more about the art of riding, handling, training and caring for horses. (3 lab hours per week)

**PHED 1146**

**Cardio Kickboxing - Individual and Dual Sports  
(1 credit)**

This course provides instruction and participation in kickboxing in order to develop the student's fitness skills, knowledge and appreciation (3 laboratory hours per week).

**PHED 1147-1157**

**Basketball  
(1 credit)**

This course consists of instruction and participation in both beginning and advanced basketball. (3 laboratory hours per week).

**PHED 1150, PHED 2150**

**Individual and Dual Sports - Fitness & Wellness  
(1 credit)**

This course provides instruction and participation in a complete lifetime fitness program to achieve total well being. (3 laboratory hours per week).

**PHED 1151**

**Individual and Dual Sports - Scuba Diving  
(1 credit)**

This course provides instruction and participation in scuba diving in order to develop the student's fitness, skills, knowledge, and appreciation. (3 laboratory hours per week). [CB36.0108.5423]

**PHED 1152**

**Individual and Dual Sports  
- Advanced Scuba Diving  
(1 credit)**

This course provides instruction and participation in advanced scuba diving in order to develop the student's fitness, skills, knowledge, and appreciation. (3 laboratory hours per week). [CB36.0108.5423]

**PHED 2110, PHED 2111**

**Boot Camp  
(1 credit)**

Boot camp fitness workouts include, but are not limited to, cardiovascular conditioning, speed, endurance, partner resistance, and different types of strength training. This course also includes fitness group challenges, kickboxing, medicine ball drills, obstacle course, and other core strength training. All activities are structured so that you can choose the appropriate intensity for your fitness level. (3 laboratory hours per week).

**PHED 2112**

**Flag Football  
(1 credit)**

This course provides instruction and participation in flag football in order to develop the student's fitness, skills, knowledge, and appreciation. (3 lab hours per week)

**PHED 2113, PHED 2115**

**Dance**

**(1 credit)**

Ballroom - This course includes the basic steps for popular European, Latin, and American ballroom dances. The history of ballroom dance and the relationships between dance styles and other cultures are also studied. (3 laboratory hours per week).

Hip Hop - This course provides instruction and participation in hip hop, and also includes a brief study of the history and philosophy of dance. (3 laboratory hours per week).

Jazz - This course provides instruction and participation in jazz and also includes a brief study of the history and philosophy of dance. (3 laboratory hours per week).

Latin Club Dance - This course provides instruction and participation in learning Salsa patterns, Bachata Merengue, Cha Cha, Rumba, and Mambo as well as exploring the music and rhythm of each dance. (3 laboratory hours per week).

**PHED 2114, 2116**

**Fitness Ball  
(1 credit)**

Fitness Ball is a planned program of exercise that will help to build and maintain core-strength. Fitness Ball will provide a condition of fitness and overall body tone through slow and controlled movements. (3 laboratory hours per week).

**ADVANCED SPORTS**

[Each course may be repeated once each, for a maximum total of 4 credits for each sport.]

**PHED 2100, 2101**

**Advanced Baseball  
(1 credit each)**

These courses are for advanced baseball players. (3 laboratory hours per week).

**PHED 2102, 2103**

**Advanced Fast-Pitch Softball  
(1 credit each)**

These courses are for advanced fast-pitch softball players. (3 laboratory hours per week).

**PHED 2104**

**Advanced Soccer  
(1 credit each)**

This course is for advanced soccer players. (3 laboratory hours per week).

**PHED 2105**

**Co-Ed Indoor Soccer  
(1 credit)**

This course is designed to introduce students to the basics of indoor soccer. Passing and shooting drills are emphasized along with team play. Modifications to soccer rules are used to accommodate indoor soccer rules. (3 laboratory hours per week).

**PHED 2108, PHED 2109**

**Stretch, Tone and Sculpt  
(1 credit)**

This course consists of a planned program of toning and conditioning exercises that incorporate resistance in an effort to improve muscular strength, endurance and flexibility. (3 laboratory hours per week).

**THEORY COURSES**

**PHED 1301**

**Introduction to Physical Fitness & Sport  
(3 credits)**

Designed for professional orientation in sports and human performances, health, and recreation, and includes a brief history and study of the philosophy and modern trends of health and human performance, teacher qualification, vocational opportunities, and skill testing. (3 lecture hours per week). [CB31.0501.5223]

**PHED 1304**

**Health and Wellness  
(3 credits)**

Course presents the essential present-day knowledge of health and wellness. Stresses physiological and anatomical background, showing the student how to make a sound appraisal of the effects of health practices upon the body. Also includes discussion of pollution, and prevention, and control of diseases. Topics such as nutrition, mental health, stress management, drugs and aspects of health and fitness are also included. (3 lecture hours per week). [CB51.1504.5116]

**PHED 1306**

**First Aid  
(3 credits)**

Theory and practice used in the standard and advanced courses of the American Red Cross in first aid and home and farm safety. (3 lecture hours per week). Corequisite: READ 0309. [CB51.1504.5316]

**PHED 1308**

**Officiating Baseball and Softball  
(3 credits)**

This class is designed to provide the student with an overview of the techniques required for officiating softball/baseball. The official's role, rules of the game, field positioning, game management and other aspects will be presented. Opportunities will be provided for observing officials at various levels. & practical officiating experience opportunities. (3 lecture hours per week). Corequisite: READ 0309. [CB31.0101.5123]

**PHED 1322**

**Coaching Athletics - Baseball/Softball  
(3 credits)**

Students learn methods of coaching baseball/softball through lectures, demonstrations, practice, and reading of present-day literature on the sport. (3 lecture hours per week). [CB31.0505.5123]

**PHED 1336**

**Concepts of Recreation & Leisure  
(3 credits)**

Students are introduced to a brief historical background, professional opportunities, current issues and trends in the field of recreation and leisure living. (3 lecture hours per week). [CB31.0101.5123]

**PHED 1338**

**Concepts of Physical Fitness  
(3 credits)**

Concepts and use of selected physiological variables of fitness, individual testing and consultation, and the organization of sports and fitness programs. (3 lecture & 3 lab hours per week) Prerequisite: READ 0309 [CB 31.0101.5123]

**PHED 1346**

**Drug Use and Abuse  
(3 credits)**

A study of the use and abuse of drugs in today's society. Emphasizes the physiological, sociological and psychological factors. (3 lecture hours per week). [CB51.1504.5216]

# Texas Department of Criminal Justice (TDCJ)

Alvin Community College has conducted educational programs for the Texas Department of Criminal Justice since 1965. In addition to the Associate of General Liberal Arts (page 44), technical Certificate of Completion Programs are offered. These certificate programs are designed to provide skills which enable the student to be placed in entry-level employment within a chosen specialty.

A certificate of completion is awarded when the student satisfactorily completes the course sequences described for a selected program.

## Certificate Programs \*

(Less Than 12 Months)

Automotive Technology  
 Computer Repair  
 Computer Science  
 Computer Science-Web Authoring  
 Culinary Arts  
 Drafting  
 Horticulture (Ornamental)

\*Courses offered only at the Texas Department of Criminal Justice

## Automotive Technology

David Garza

All AUMT courses are under [CB47.0604]

### AUMT 1305

#### Introduction to Automotive Technology (3 credits)

An introduction to the automotive industry including automotive history, safety practices, shop equipment and tools, vehicle subsystems, service publications, fasteners, professional responsibilities and automotive maintenance. (1 lecture and 8 laboratory hours per week).

### AUMT 1319

#### Automotive Engine Repair (3 credits)

Fundamentals of engine operation, diagnosis and repair including lubrication systems and cooling systems. Emphasis on overhaul of selected engines, identification and inspection, measurements, and disassembly, repair, and reassembly of the engine. (1 lecture and 8 laboratory hours per week).

### AUMT 1407

#### Automotive Electrical Systems (4 credits)

An overview of automotive electrical systems including topics in operational theory, testing, diagnoses, and repair of batteries, charging and starting systems, and electrical accessories. Emphasis on electrical schematic diagrams and service manuals. (2 lecture and 8 laboratory hours per week).

### AUMT 1416

#### Automotive Suspension and Steering Systems (4 credits)

Theory and operation of automotive suspension and steering systems including tire and wheel problem diagnoses, component repair, and alignment procedures. (2 lecture and 8 laboratory hours per week).

### AUMT 2417

#### Automotive Engine Performance Analysis I (4 credits)

Theory, operation, diagnoses and repair of basic engine dynamics, ignition systems, and fuel delivery systems. Use of basic engine performance diagnostic equipment. (2 lecture and 8 laboratory hours per week).

## Computer Repair

Felipe Garza

### CPMT 1403

#### Introduction to Computer Technology (4 credits)

A fundamental computer course that provides in-depth explanation of the procedures to utilize hardware and software. Emphasis on terminology, acronyms, and hands-on activities. (3 lecture and 4 lab hours per week)

### CPMT 1411

#### Introduction to Computer Maintenance (4 credits)

A study of the information for the assembly of a microcomputer system. emphasis on the evolution of microprocessors and microprocessor bus structures. (3 lecture and 4 laboratory hours per week).

### CPMT 1445

#### Computer Systems Maintenance (4 credits)

Examination of the functions of the components within a computer system. Development of skills in the use of test equipment and maintenance aids. (2 lecture and 6 laboratory hours per week).

### CPMT 1447

#### Computer System Peripherals (4 credits)

Principles and practices involved in computer system troubleshooting techniques, programs, and the use of

test equipment and maintenance aids. (2 lecture and 6 laboratory hours per week).

### CPMT 1449

#### Computer Networking Technology (4 credits)

A beginning course in computer networks with focus on networking fundamentals, terminology, hardware, software and network architecture. A study of local/wide area networking concepts and networking installations and operations. (2 lecture and 4 lab hours per week).

### CPMT 2445

#### Computer System Troubleshooting (4 credits)

Principles and practices involved in computer system troubleshooting techniques and repair procedures including advanced diagnostic test programs and the use of specialized test equipment. (3 lecture and 4 laboratory hours per week).

### ITNW 1408

#### Implementing and Supporting Client Operating Systems (4 credits)

Skills development in the management of client as desktop operating systems. (3 lecture and 4 laboratory hours per week).

## Computer Information Technology/WebAuthoring

Thomas Magliolo, Department Chairperson  
 Tom Cook, Randy Jonte, Michael J. Smith

### BCIS 1305

#### Business Computer Applications (3 credits)

This course contains an overview of computer concepts, computer vocabulary, and microcomputer applications. The course requires the use of a microcomputer. (3 lecture hours per week). [CB5212025227]

**IMED 1416**  
**Web Design I**  
**(4 credits)**

Instruction in web page design and related graphic design issues including mark-up languages, web sites, and browsers. Identify how the Internet functions with specific attention to the World Wide Web and file transfer; apply design techniques in the creation and optimization of graphics and other embedded elements; demonstrate the use of World Wide Web consortium (W3C) formatting and layout standards; create, design, test, and debug a web site. (3 lecture and 3 lab hours per week) [CIP11.0801]

**INEW 2434**  
**Advanced Web Page Programming**  
**(4 credits)**

Advanced applications for Web Authoring. Topics include Perl Scripts, Common Gateway Interface (CGI), Database Interaction Active Server Pages, Java Applets, Javascripts, tables, HTML, and/or interactive elements. (3 lecture and 4 laboratory hours per week)

**ITSC 1401**  
**Introduction to Computers**  
**(4 credits)**

Overview of computer information systems. Introduces computer hardware, software, procedures, and human resources. Explores integration and application in business and other segments in society. Fundamental of computer problem-solving and programming may be discussed and applied. Examines applications and software relating to a specific curricular area. (3 lecture and 4 lab hours per week)

**ITSC 1409**  
**Integrated Software Applications I**  
**(4 credits)**

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. (3 lecture and 4 lab hours per week)

**ITSE 1411**  
**Web Page Programming**  
**(4 credits)**

Instruction in Internet Web page programming and related graphic design issues including markup languages, Web sites, Internet access software, and interactive topics. May include use of HTML, CGI, JAVA, or ASP. (3 lecture and 4 laboratory hours per week)

**ITSE 1422**  
**Introduction to C Programming**  
**(4 credits)**

Introduction to programming using C. Emphasis on the fundamentals of structured design, development, testing, implementation, and documentation. Includes language syntax, data and file structures, input/output devices, and files. (3 lecture and 3 laboratory hours per week). [CIP11.0204]

**ITSE 1431**  
**Introduction to Visual BASIC Programming**  
**(4 credits)**

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/out devices, and files. (3 lecture and 4 lab hours per week)

**ITSE 2402**  
**Internet Web Programming**  
**(4 credits)**

Intermediate applications for Web Authoring. Topics may include Server Side Include (SSI), Perl, HTML, JAVA, Javascript, and/or ASP (3 lecture and 4 laboratory hours per week)

**ITSE 2413**  
**Web Authoring**  
**(4 credits)**

Instruction in designing and developing web pages that incorporate text, graphics, and other supporting elements using current technologies and authoring tools. (3 lecture and 3 lab hours per week)

**ITSE 2449**  
**Advanced Visual BASIC Programming**  
**(4 credits)**

Further applications of programming techniques using Visual BASIC. Topics include file access methods, data structures and modular programming, program testing and documentation. (2 lecture and 6 lab hours per week)

**ITSW 1407**  
**Introduction to Database**  
**(4 credits)**

Introduction to database theory and the practical applications of a database. (3 lecture and 4 lab hours per week)

**ITSW 2437**  
**Advanced Database**  
**(4 credits)**

Designed to provide an understanding of advanced functionality of databases. (3 lecture and 4 lab hours per week)

**Culinary Arts**

*Rosemary Bowen*

**CHEF 1205**  
**Sanitation and Safety**  
**(2 Credits)**

A study of personal cleanliness; sanitary practices in food preparation; causes, investigation, control of illness caused by food contamination (Hazard Analysis Critical Control Points); and work place safety standards. (2 lecture hours per week). [CIP12.0503]

**CHEF 1400**  
**Professional Cooking and Meal Service**  
**(4 Credits)**

Technical aspects of food preparation in the commercial kitchen. This will be accomplished by preparing and serving meals according to a production schedule. Emphasis on team work, professionalism, guest relations and table service. (2 lecture and 4 lab hours per week) [CIP12.0503]

**CHEF 1401**  
**Basic Food Preparation**  
**(4 Credits)**

A study of the fundamental principles of food preparation and cookery to include Brigade System, cooking techniques, material handling, heat transfer, sanitation, safety, nutrition, and professionalism. (2 lecture and 4 lab hours per week) [CIP12.0503]

**CHEF 2301**  
**Intermediate Food Preparation**  
**(3 Credits)**

Continuation of previous food preparation course. Topics include the concept of pre-cooked food items, as well as scratch preparation. Covers full range of food preparation techniques. (2 lecture and 3 lab hours per week). [CIP12.0503]

**CHEF 2331**  
**Advanced Food Preparation**  
**(3 Credits)**

Continuation of previous food preparation course. Topics include the concept of pre-cooked food items, as well as scratch preparation. Covers full range of food preparation techniques. (2 lecture and 3 lab hours per week). [CIP12.0503]

**IFWA 1427**  
**Food Preparation II**  
**(4 Credits)**

Continuation of previous food preparation course. Topics include the concept of pre-cooked food items, as well as scratch preparation. Covers full range of food preparation techniques. (2 lecture and 4 lab hours per week) [CIP12.0503]

**IFWA 2346**  
**Quantity Procedures**  
**(3 Credits)**

Exploration of the theory and application of quantity procedures for the operation of commercial, institutional, and industrial food services. Emphasis on quantity cookery and distribution. (2 lecture and 4 lab hours per week) [CIP12.0503]

**PSTR 1301**  
**Fundamentals of Baking**  
**(3 Credits)**

The fundamentals of baking including yeast dough, quick breads, pies, cakes, cookies, tarts, and doughnuts. Instruction in flours, fillings, and ingredients. Topics include baking terminology, tool and equipment use, kitchen safety, formula conversions, functions of ingredients, and the evaluation of baked products. (2 lecture and 3 lab hours per week) [CIP12.0501]

## Drafting

*Ray Salinas*

### DFTG 1215

#### Architectural Blueprint Reading (2 credits)

The fundamentals of blueprint reading for the construction industry will be examined. (1 lecture and 2 lab hours per week)

### DFTG 1405

#### Technical Drafting (4 credits)

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. (2 lecture and 6 lab hours per week)

### DFTG 1409

#### Basic Computer-Aided Drafting (4 credits)

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. (2 lecture and 6 lab hours per week)

### DFTG 1417

#### Architectural Drafting – Residential (4 credits)

Architectural drafting procedures, practices, and symbols. Preparation of detailed working drawings for residential structures. Emphasis on light frame construction methods. (2 lecture and 5 lab hours per week)

### DFTG 1433

#### Mechanical Drafting (4 credits)

Detail drawings with proper dimensioning and tolerances, use of sectioning technique, common fasteners, pictorial drawings, including bill of materials (2 lecture and 6 lab hours per week)

### DFTG 2323

#### Pipe Drafting (3 credits)

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. (2 lecture and 2 lab hours per week).

### DFTG 2419

#### Intermediate Computer-Aided Drafting (4 credits)

A continuation of practices and techniques used in basic computer-aided drafting emphasizing advanced dimensioning techniques, the development and use of prototype drawings, construction of pictorial drawings, construction of 3 dimensional, interfacing 2d and 3d environments and extracting data. (2 lecture and 6 lab hours per week).

### TECM 1303

#### Technical Mathematics (3 credits)

A review of basic mathematics including whole numbers, fractions, mixed numbers, decimals, percents, ratios, and proportions. Converting to different units of measure (standard and/or metric) and other topics as required by specific businesses and industries will be covered. (3 lecture hours per week).

## Horticulture (Ornamental)

*Billy Sowa*

### HALT 1401

#### Principles of Horticulture (4 credits)

An overview of the horticulture industry, plant science, terminology, classification, propagation, environmental responses, and careers and opportunities in the field of horticulture. (1 lecture and 8 lab hours per week).

### HALT 1422

#### Landscape Design (4 credits)

A study of the principles and elements of landscape design. Topics include client interview, site analysis, plan view, scale, plant selection, basic drawing and drafting skills, and land preparation. (1 lecture and 8 lab hours per week).

### HALT 2402

#### Greenhouse Crop Production (4 credits)

In-depth coverage of the production of crops within the controlled environment of a greenhouse. Topics include growing techniques, environmental control, crop rotation, scheduling, preparation for sale, and marketing. (1 lecture and 8 lab hours per week).

### HALT 2408

#### Greenhouse Management (4 credits)

Fundamentals of greenhouse construction and operation. Topics include architectural styles, construction materials, environmental systems and controls, growing media, fertilizers, post harvest handling, marketing, and business management. (1 lecture and 8 lab hours per week).

### HALT 2423

#### Horticultural Pest Control (4 credits)

Examination of federal, state, and local laws and regulations governing the control of horticultural pests. Topics include procedures; methods; safety requirements; integrated pest management (IPM); and chemical, natural, and biological controls. (1 lecture and 8 lab hours per week).