

Process Technology Certificate Program

Length: Three Semesters

Purpose: The Process Technology certificate level program is designed to prepare students for entry level jobs in the petrochemical industry. Time for completion is one-and-one-half years.

Program Requirements: A certificate student will take the following curriculum to achieve the certificate in Process Technology.

Course Number	Course Title	Lecture Hours	Lab Hours	Course Credits
First Semester				
COSI 1401	Introduction to Computers	3	3	4
CTEC 1401	Applied Petrochemical Technology	3	2	4
PTAC 1302	Introduction to Process Technology	2	2	3
SOCI 1301	Principles of Sociology	3	0	3
MATH 1335 or	College Mathematics	3	0	3
MATH 1314	College Algebra	14	7	17
Second Semester				
BMGT 2303	Problem Solving and Decision Making	3	0	3
ENGL 1301	Composition and Rhetoric I	3	0	3
PTAC 2410	Process Technology I	3	2	4
SCIT 1414	Applied General Chemistry I	3	5	4
		12	5	14
Third Semester				
ENGL 2311	Technical Communications	3	0	3
PTAC 1308	Safety, Health and Environment I	3	1	3
PTAC 1352	Process Instrumentation I	2	2	3
*PTAC 2420	Process Technology II	3	2	4
		11	5	13
	*Capstone Course			
Total Credits Required for Process Technology Certificate.....				43

Respiratory Care Degree Program

Degree: Associate Degree in Applied Science (A.A.S.)

Length: 24 months

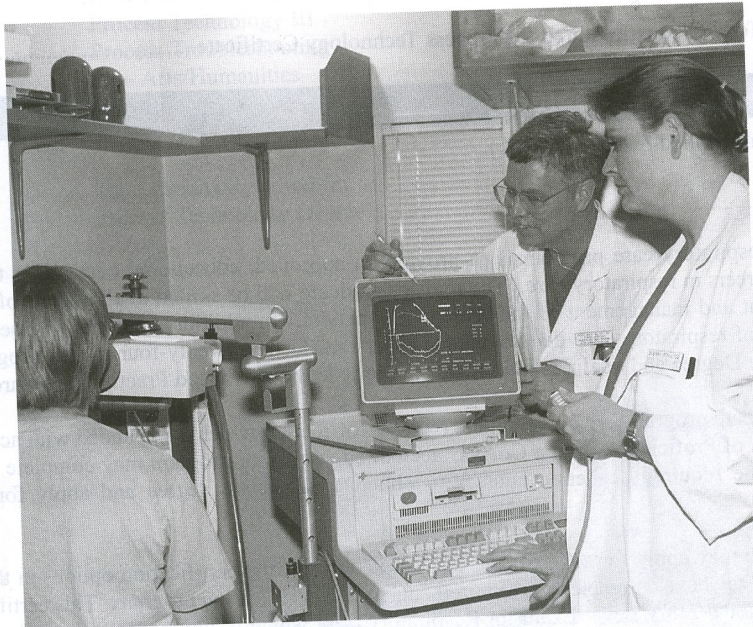
Purpose: The purpose of respiratory care program is to provide an approved, educational curriculum that will prepare competent individuals for careers in respiratory care. The registry graduate will be skilled in all aspects of respiratory care with emphasis on assessment and management of the critical care patient. In addition, students will be involved in the management and education of respiratory care departments and personnel. The twenty-four month program leads to an Associate in Applied Science Degree and qualifies individuals to apply to the Advanced Practitioner Board Examination.

The curriculum for the certificate program is included in the registry curriculum which is expanded with academic courses. Individuals with a Certificate of Proficiency from a CoARC accredited certificate program may complete the second year of the registry option and the required academic courses to obtain an associate degree and apply for the Advanced Practitioner Examination.

Students in the registry option may apply for a Certificate of Completion (for the certification option) in the fall semester of their second year provided they have completed the requirements for the certification program. This certificate will allow the student to attempt the National Entry Level Exam for Respiratory Care which is administered the following March. The registry program is fully accredited by the Committee on Accreditation for Respiratory Care (CoARC) and the Commission on Accreditation of Allied Health Education Programs (CAAHEP).

Admission Requirements:

1. To be considered for admission to the respiratory care program, the applicant must:
 - a. be a high school or GED graduate
 - b. make application to ACC and fulfill the admission requirements, including TASP
 - c. make application to the respiratory care program
 - d. submit official transcripts of all previous college work to both the Respiratory Care Department and ACC Records Office.
 - e. applicants are required to demonstrate an understanding of the responsibilities and duties of the profession through observation and discussion with a practicing therapist. Contact the director for details.
 - f. score 19 or higher on ACT composite or minimum combined math/verbal SAT score of 713 if taken prior to April 1, 1995 or SAT score of 870 if taken prior to April 1, 1995.
 - g. interview with the Director of Respiratory Care.
 - h. complete a physical examination which includes a chest x-ray, TB skin test, and immunizations upon acceptance to the program.
 - i. not currently be on suspension or academic probation from ACC or another college or university.
2. Any science or respiratory care course completed more than five years prior to the student being accepted may not satisfy requirements for a degree in respiratory care.
3. Transfer students must complete the following:
 - a. meet the above admission criteria
 - b. have a cumulative GPA of 2.0 or higher on all courses being transferred into the respiratory care curriculum.
 - c. provide the ACC Records Office with an official transcript from each institution attended
 - d. provide the Respiratory Care Department with a copy of transcript from each institution attended
 - e. provide the Respiratory Care Department with a description and/or syllabus of each course being considered for transfer
 - f. not currently be on suspension or academic probation from another college
 - g. credit will be given for support courses equivalent to those included in the respiratory care program at ACC as determined by examination of the syllabus of the transfer course. A grade of C or higher must have been earned in transfer courses.
4. A new class begins each June. Deadline for application is the first Friday of April each year.



Alternate Enrollment:

1. Alternate enrollment applies to those respiratory care personnel who are licensed and have not completed the certification program or the associate degree.
2. Respiratory care professionals with at least two years' full-time experience in the field will have the opportunity to challenge respiratory care courses. These courses must be challenged in sequence unless permission is otherwise granted by the program director.

Progression Policies:

1. Respiratory care students will abide by the admission and curriculum requirements of the Respiratory Care Department at the time they are admitted or re-admitted to the program.
2. Once a student has enrolled in the respiratory care programs, all respiratory care courses must be completed in the proper sequence as shown in the catalog and degree plan, or must have the approval of the program director.
3. No grade below a **C** in a respiratory care or academic course will be acceptable for progression.
4. A student will be terminated from the program if clinical performance is unsatisfactory as determined by the clinical instructor and the program director. This action may be taken at any time during the semester or at the end of the semester.
5. A student who makes a **D** or **F** in any science/respiratory care course may repeat that course once in order to obtain a **C** or better.
6. A student requiring hospitalization or sustaining an injury will be required to obtain a written statement from his/her physician verifying that the health status of the student is adequate for performance in the clinical agency. A student may not be allowed to return to the clinical area if he/she must be on medications which may interfere with the ability to perform satisfactorily.
7. A student who is pregnant must present a physician's statement giving evidence of her ability to perform the work required.
8. Students must complete the program within five years after initial acceptance.



Associate in Applied Science Degree Program

Course Number	Course Title	Lecture Hours	Lab Hours	Course Credits
FIRST YEAR				
Summer Session—1st Six Weeks				
BIOL 2401	Anatomy and Physiology I	3	2	4
Summer Session—2nd Six Weeks				
BIOL 2402	Anatomy and Physiology II	3	2	4
Summer Session—12 Weeks				
RESC 1201	Respiratory Care Sciences	2	0	2
RESC 1300	Respiratory Physiology	<u>3</u>	<u>0</u>	<u>3</u>
		5	0	5
Fall Semester				
RESC 1400	Introduction to Respiratory Care	3	3	4
RESC 1411	Respiratory Care Procedures I	3	2	4
RESC 1320	Pharmacology	3	0	3
ENGL 1301	Composition and Rhetoric I	3	0	3
RESC 1120	Introduction to Practicum	<u>0</u>	<u>8</u>	<u>1</u>
		12	12	15
Spring Semester				
RESC 1312	Respiratory Pathophysiology	3	0	3
RESC 1315	Pulmonary Diagnostics	2	2	3
RESC 1412	Respiratory Care Procedures II	3	2	4
RESC 1212	Practicum I	0	16	2
PHED	Physical Activity	<u>0</u>	<u>3</u>	<u>1</u>
		8	23	13
SECOND YEAR				
Summer Session—12 Weeks				
RESC 2112	Mechanical Ventilator Lab	0	2	1
RESC 2205	Clinical Management and Education	1	3	2
RESC 2212	Clinical Practicum II	<u>0</u>	<u>15</u>	<u>2</u>
		1	20	5
Fall Semester				
RESC 2320	Advanced ICU Procedures	3	0	3
RESC 2310	Advanced Pathophysiology	3	0	3
RESC 2223	Clinical Practical III	0	18	2
BIOL 2420	Microbiology	<u>3</u>	<u>2</u>	<u>4</u>
		9	20	12
Spring Semester				
RESC 2309	Pediatrics	3	0	3
RESC 2224	Clinical Practical IV	0	20	2
RESC 2201	Seminar in Respiratory Care	2	0	2
PHED	Physical Activity	0	3	1
Elective	Fine Arts/Humanities	3	0	3
PSYC 2301	General Psychology	<u>3</u>	<u>0</u>	<u>3</u>
		11	23	14
Total Credits Required for a Respiratory Care Degree.....				72

Respiratory Care Certificate Program

Length: 18 Months

Purpose: The Respiratory Care Department offers an approved educational program which will prepare competent individuals for an allied health specialty in the clinical care and management of respiratory disorders. The certificate graduate will be adept in the administration of medical gases, medications, aerosol therapy, bronchopulmonary drainage, cardiopulmonary resuscitation, pediatric respiratory care, and ventilator management, as well as pulmonary function testing and arterial blood gas sampling and interpretation.

The nineteen-month program leads to a certificate and qualifies the graduate to apply for the National Entry Level Examination which leads to a Certified Respiratory Therapist (CRT).

This program is fully accredited by the Committee on Accreditation for Respiratory Care (CoARC) and Commission on Accreditation of Allied Health Education Programs (CAAHEP).

For admission requirements and progression policies, see Respiratory Care Program, Degree in Applied Science.

Course Number	Course Title	Lecture Hours	Lab Hours	Course Credits
FIRST YEAR				
Summer Session—1st Six Weeks				
BIOL 2401	Anatomy and Physiology I	3	2	4
Summer Session—2nd Six Weeks				
BIOL 2402	Anatomy and Physiology II	3	2	4
Summer Session—12 Weeks				
RESC 1201	Respiratory Care Sciences	2	0	2
RESC 1300	Respiratory Physiology	3	0	3
		5	0	5
Fall Semester				
RESC 1400	Introduction to Respiratory Care	3	3	4
RESC 1411	Respiratory Care Procedures I	3	2	4
RESC 1320	Pharmacology	3	0	3
ENGL 1301	Composition and Rhetoric I	3	0	3
RESC 1120	Introduction to Practicum	0	8	1
		12	12	15
Spring Semester				
RESC 1312	Respiratory Pathophysiology	3	0	3
RESC 1315	Pulmonary Diagnostics	2	2	3
RESC 1412	Respiratory Care Procedures II	3	2	4
RESC 1212	Practicum I	0	16	2
PHED	Physical Activity	0	3	1
		8	23	13
SECOND YEAR				
Summer Session—12 Weeks				
RESC 2112	Mechanical Ventilator Lab	0	2	1
RESC 2205	Clinical Management and Education	1	3	2
RESC 2212	Clinical Practicum II	0	15	2
		1	20	5
Fall Semester				
RESC 2320	Advanced ICU Procedures	3	0	3
RESC 2310	Advanced Pathophysiology	3	0	3
RESC 2223	Clinical Practical III	0	18	2
BIOL 2420	Basic Microbiology	3	2	4
		9	20	12
	Total Credits Required for Respiratory Care Certificate.....			58

Retail Management and Marketing Degree Program

Degree: Associate in Applied Science (A.A.S.) - Tech Prep *

Length: Four-Semester (Two-Year) Program

Purpose: The retail management and marketing curriculum develops an overview of the retail industry, its principles, and procedures. The graduate of this program could expect to continue a trend of upward mobility in the field of retail merchandising.

The person currently working in a retail management/marketing related area, the immediate post-high school students interested in retail management/marketing, or the individual who would be interested in learning more about the retail industry will find this curriculum applicable.

Program Requirements: The retail management/marketing curriculum combines a careful blending of retail merchandising principles, practices and procedures with the opportunity for students to obtain practical application of knowledge gained. In addition to the retail courses, students are expected to complete several management courses that help prepare them for dealing with the complexities associated with managing people. Along with these requirements, students must complete general education courses such as English, Mathematics or Finance, Introduction to Computer Science, and two electives. In addition, the student serves three semesters of cooperative education. The student must work a minimum of twenty hours per week at an approved work station and meet one hour per week in lecture. Upon satisfactory completion of the program, the graduate will be awarded the Associate in Applied Science Degree.

Associate in Applied Science Program

Course Number	Course Title	Lecture Hours	Lab Hours	Course Credits
FIRST YEAR				
First Semester				
ENGL 1301	Composition and Rhetoric I	3	0	3
PHED	Physical Activity	0	3	1
MRKG 1311	Principles of Marketing	3	0	3
BMGT 1380	Cooperative Education-General Retailing Operations I	1	20	3
BUSG 1309 or BMGT 1335	Small Business Management Introduction to Merchandising	3	0	3
ECON 2301 or SOC 1301	Principles of Economics I Principles of Sociology	3 13	0 23	3 16



Second Semester

BMGT 2303	Problem Solving and Decision Making	3	0	3
BMGT 2380	Cooperative Education-General Retailing Operations II	1	20	3
BMGT 1347	Retail Buying	3	0	3
BMGT 1302	Principles of Retailing	3	0	3
MATH 1314 or	College Algebra	3	0	3
MATH 1335	College Mathematics			
PHED	Physical Activity	0	3	1
		13	23	16

SECOND YEAR

First Semester

COSC 1401	Introduction to Computers	3	3	4
BMGT 1303	Principles of Management	3	0	3
*BMGT 2381	Cooperative Education-General Retailing Operations III	1	20	3
HRPO 1311	Human Relations	3	0	3
Elective	Humanities/Fine Arts	3	0	3
		13	23	16

Second Semester

BMGT 1333	Principles of Selling	3	0	3
HRPO 2307	Organizational Behavior	3	0	3
HRPO 2301	Human Resource Management	3	0	3
BMGT 1304	Visual Merchandising	3	0	3
SPCH 1315 or	Public Speaking	3	0	3
SPCH 1318	Interpersonal Communications			
Elective	College Level	3	0	3
		18	0	18

*Capstone Course

Total Credits Required for
Retail Management and Marketing Degree.....66

Retail Management and Marketing Enhanced Skills Certificate

Course Number	Course Title	Lecture Hours	Lab Hours	Course Credits
IBUS 1301	Principles of Imports-Exports I	3	0	3
IBUS 1354	International Marketing Management	3	0	3

Total Credits Required for Retail Management and Marketing
Enhanced Skills Certificate.....72



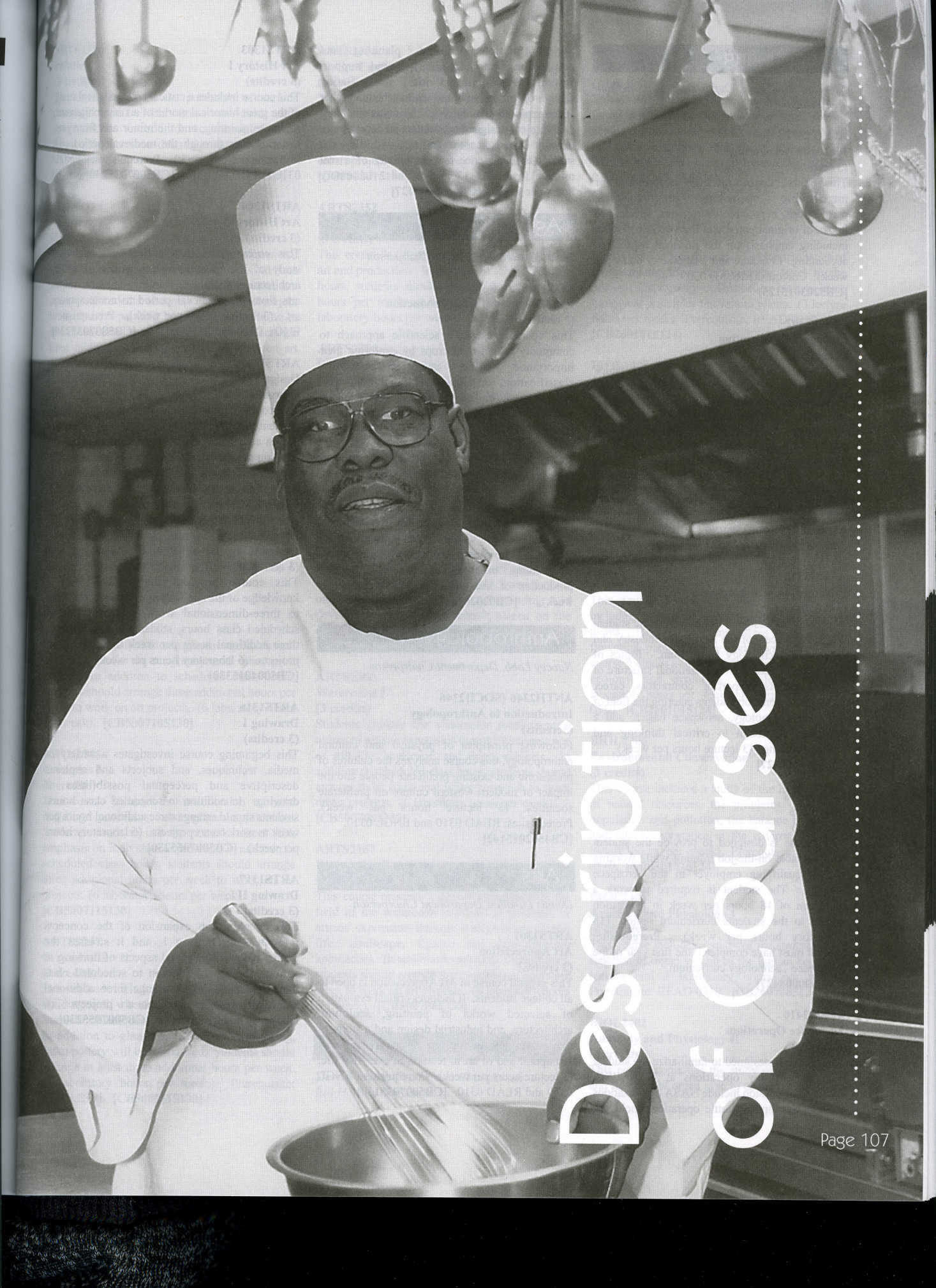
Retail Management and Marketing Certificate Program

Length: Two-Semester (One-Year) Program *

Purpose: The one-year certificate prepares the student for full-time employment in the field of retail management and marketing. The basic objective of the program is to develop skills and allow the student a chance to utilize these skills at an approved work station.

Course Number	Course Title	Lecture Hours	Lab Hours	Course Credits
First Semester				
MRKG 1311	Principles of Marketing	3	0	3
BMGT 1303	Principles of Management	3	0	3
HRPO 1311	Human Relations	3	0	3
BMGT 1333	Principles of Selling	3	0	3
BMGT 1380	Cooperative Education-General Retailing Operations I	1	20	3
BMGT 1335 or BUSG 1309	Introduction to Merchandising Small Business Management	3 16	0 20	3 18
Second Semester				
BMGT 2303	Problem Solving and Decision Making	3	0	3
*BMGT 2380	Cooperative Education-General Retailing Operations	1	20	3
HRPO 2307	Organizational Behavior	3	0	3
BMGT 1302	Principles of Retailing	3	0	3
BMGT 1347	Retail Buying	3	0	3
BMGT 1304 or HRPO 2301	Visual Merchandising Human Resource Management	3 16	0 20	3 18
	*Capstone Course			
Total Credits Required for Retail Management and Marketing Certificate.....				36





Description of Courses

Accounting

Norman Bradshaw, Department Chairperson,
Tom Branton

ACCT2301

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). Corequisite: READ 0309. [CB5203015125]

ACCT2302

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. [CB5203015125]

Aerospace Technology

COMPUTER PROGRAMMING OPTION

Thomas Magliolo, Department Chairperson

AERO1310

Introduction to Aerospace (3 credits)

This course is designed to familiarize the student with many facets of the Aerospace Industry and Aerospace Technology Curriculum. Topics of discussion include the organizational structure of NASA and its supporting contractors, career paths and options for students entering the field of aerospace technology, aerospace basics, and a structured approach to critical thinking and problem solving. (3 lecture hours per week). [CB0000008427]

AERO2388

Internship (3 credits)

This course is designed to provide the student with valuable on-the-job training while working with a qualifying employer in the aerospace industry. The student is required to work a minimum of 18 hours per week in a position related to the students curriculum option. (18 laboratory hours per week). Prerequisite: Student must have completed the first year of the Aerospace Technology curriculum. [CB0000008427]

AERO2410

Aerospace Operations (4 credits)

This course is designed to familiarize the student with present day operations at NASA/JSC. Topics of discussion include NASA organizations and charters; space shuttle operations including

typical missions, mission planning and preparation, crew training, ground support systems, post-flight activities; space station design, operation, and production schedule; other space exploration initiatives. This course includes a lab project designed to simulate an actual space mission from concept to end that will allow the student to experience the complexity of a real mission firsthand. (3 lecture and 3 laboratory hours per week). [CB0000008427]

Agriculture

Steve Wheeler, Department Chairperson

AGRI1307

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). [CB0204025121]

AGRI1319

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). [CB0202015121]

Anthropology

Nancey Lobb, Department Chairperson

ANTH2346 (SOCI)2346

Introduction to 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 on preliterate societies. (3 lecture hours per week). Prerequisites: READ 0310 and ENGL 0310. [CB4502015142]

Arts

Dennis LaValley, Department Chairperson

ARTS1301

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. [CB5007035130]

ARTS1303

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. [CB5007035230]

ARTS1304

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. [CB5007035230]

ARTS1311

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. (6 laboratory hours per week). [CB5004015330]

ARTS1312

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. (6 laboratory hours per week). [CB5004015330]

ARTS1316

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. (6 laboratory hours per week). [CB5007055230]

ARTS1317

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. (6 laboratory hours per week). [CB5007055230]

ARTS2316**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. (6 laboratory hours per week). [CB5007085230]

ARTS2317**Painting II
(3 credits)**

This course includes a study of the techniques and media used in painting; expression, as well as subject matter, is unrestricted. These courses are open to all students who wish to paint. Art majors must attend a painting laboratory. In addition to scheduled class hours, students should arrange three additional hours per week to work on art projects. (6 laboratory hours per week). [CB5007085230]

ARTS2326**Sculpture I
(3 credits)**

This course provides students with experiences in sculpture in stone, metal, clay, wood, and plaster, with an emphasis on expression three-dimension form in space. Art majors are expected to attend a sculpture lab. In addition to scheduled class hours, students should arrange three additional hours per week to work on art projects. (6 laboratory hours per week). [CB5007095130]

ARTS2331**Graphic Media
(3 credits)**

Students critically evaluate graphic media as well as create works in serigraphy and other print media. In addition to scheduled class hours, students should arrange three additional hours per week to work on art projects. (6 laboratory hours per week). [CB5007105130]

ARTS2346**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. (6 laboratory hours per week). [CB5007115130]

ARTS2347**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. (6 laboratory hours per week.) Prerequisite: ARTS 2346. [CB5007115130]

ARTS2351**Design Communication 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. (6 laboratory hours per week). [CB5004015130]

ARTS2352**Design Communication 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. (6 laboratory hours per week). [CB5004015130]

ARTS2356**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. (6 laboratory hours per week).

ARTS2357**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. (6 laboratory hours per week). Prerequisite: ARTS 2356

ARTS2366**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. (6 laboratory hours per week). [CB5007085330]

ARTS2367**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. (6 laboratory hours per week). [CB5007085330]

Biology

*Steve Wheeler, Department Chairperson
Bill Horine, Roy Turner*

BIOL1308**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. [CB2601015124]

BIOL1309**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. [CB2601015124]

BIOL1408**General Biology I
(4 credits)**

This course covers the principles of biology, including considerable study of the structure of animals. This course emphasizes the study of the animal kingdom and the human organ system, and it includes an introduction to cell physiology and metabolism. (3 lecture and 3 laboratory hours per week). Prerequisite: READ 0310. [CB2601015124]

BIOL1409**General Biology II
(4 credits)**

This course covers the principles of biology, including considerable study of the structure of plants. This course emphasizes the study of flowering plant anatomy and physiology. The course includes a survey of plant groups, genetics, ecology, and evolution. (3 lecture and 3 laboratory hours per week). Prerequisite: READ 0310. [CB2601015124]

BIOL2306**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. [CB0301025124]

BIOL2401**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. [CB2607065124]

BIOL2402**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. [CB2607065124]

BIOL2420

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 BIOL1408, BIOL 1409, BIOL 2401, OR BIOL 2402. [CB2605015124]

Business Administration

Norman Bradshaw, Department Chairperson

BUSH1301

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). Corequisite: READ 0309. [CB0000005824]

BUSI2301

Business Law I (3 credits)

This course covers the principles of law which form the legal framework for business activities. (3 lecture hours per week). Corequisite: READ 0309. [CB2201015125]

BUSI2302

Business Law II (3 credits)

This course explores the role of law in business and society, government regulations of business and legal reasoning, source of law, social policy and legal institutions, antitrust, and other laws affecting business. (3 lecture hours per week). Corequisite: READ 0309. [CB22010151225]

Chemistry

William R. Bitner, Department Chairperson
Betty Graef

CHEM1405

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. [CB4005015139]

CHEM1407

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. [CB4005015139]

CHEM1411

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. [CB4005015239]

CHEM1412

General Chemistry and Analysis II (4 credits)

The topics presented in this course include oxidation-reduction, the chemistry of the common elements and their compounds, coordination chemistry, and electro-chemistry. This course also emphasizes the qualitative analysis of the common cations and anions using semi-micro techniques in the laboratory and the study of systems involving chemical equilibria. (3 lecture and 4 laboratory hours per week). Prerequisite: CHEM 1411. [CB4005015239]

CHEM2401

Quantitative Analysis (4 credits)

This course emphasizes the fundamental principles of quantitative analysis. Students make determinations involving gravimetric and volumetric methods and carry out acid-base titration. Students use some of the more modern techniques, including spectrophotometric and electroanalytical procedures (2 lecture and 6 laboratory hours per week). Prerequisite: CHEM 1412. [CB4005025139]

CHEM2423

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, phenols and ethers. (3 lecture and 4 laboratory hours per week). Prerequisite: CHEM 1412. [CB4005045239]

CHEM2425

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. (3 lecture and 4 laboratory hours per week). Prerequisite: CHEM 2423. [CB4005045239]

Child Development & Early Childhood

Sandra Horine, Department Chairperson

CDEC1270

Early Childhood Games and Recreation (2 credits)

An introduction to the fundamental principles of child development through physical activity, this course explores physical activities appropriate to motor development and movement education. (1 lecture and 2 laboratory hours per week). Corequisite: READ 0309. [CB0000005222]

CDEC1303

Family and the Community (3 credits)

A study of the relationship between the child, the family, the community, and early childhood educators, including a study of parent education, family and community lifestyles, child abuse and current issues. The student will examine research on parenting styles; discuss issues relating to families and communities; discuss literature relating to diverse lifestyles and multi-cultural influences; examine research on abuse and neglect as it occurs in the family. The student will identify effective parenting techniques; identify characteristics of functional and dysfunctional families; demonstrate the ability to communicate and interact with parents and families; recognize signs of abuse and neglect; describe ways to work effectively with abusive behaviors; and develop activities to enhance understanding of diverse lifestyles and multi-cultural influences. (3 lecture hours per week). Corequisite: READ 0309. [CB0000005222]

CDEC1311

Introduction to Early Childhood Education (3 credits)

An introduction to the profession of early childhood education, focusing on developmentally appropriate practices, types of programs, historical perspectives, ethics, and current issues. The student will discuss the contributions of key historical and contemporary theorists to the field of early childhood education, explain the features of a developmentally appropriate program for young children, define development and define each of the four basic developmental areas, describe the types of early childhood programs, and analyze future trends and issues of the early childhood profession. The student will demonstrate an understanding of the characteristics and developmental stages of an early childhood professional. (3 lecture hours per week). Corequisite: READ 0309. [CB0000005222]

CDEC1313**Curriculum Resources for Early Childhood Programs (3 credits)**

Fundamentals of curriculum design and implementation in developmentally appropriate programs for young children. The student will define and describe the process of curriculum development beginning with goals, objectives and learning activities, and culminating in assessment; and develop guidelines for creating developmentally appropriate learning (indoor/outdoor) environments. The student will select, plan and implement developmentally appropriate activities for young children; apply an understanding of the teacher's role in the early childhood classroom; and prepare a developmentally appropriate schedule including routines and transitions. (3 lecture hours per week). Corequisite: READ 0309. [CB0000005222]

CDEC1317**Child Development Associate Training I (3 credits)**

Based on the requirements for the Child Development Associate National Credential (CDA). Three of the 13 functional areas of study include: family, program management, and professionalism. Topics on CDA overview, general observation skills, and child growth and development overview. The student will demonstrate knowledge of family, program management, and professionalism as well as the CDA process, general observation skills, and basic child growth and development. The student will utilize skills in writing, speaking, problem-solving, time management, and record keeping. (1 lecture and 10 laboratory hours per week). Corequisite: READ 0309. [CB0000005222]

CDEC1318**Nutrition, Health and Safety (3 credits)**

A study of nutrition, health, safety, and related activities, including skill development in management of issues, guidelines, and practices in nutrition, as well as community health, hygiene, safety, and legal implications. Integration of these principles applies to a variety of settings. The student will demonstrate knowledge of the principles, assessment activities, and regulatory requirements for nutrition; describe community health problems, universal health precautions, environmental and personal hygiene and legal implications regarding health; and evaluate the regulations, procedures, and environment regarding safety. The student will demonstrate skills in computation, record keeping, referrals, and resources. (3 lecture hours per week). Corequisite: READ 0309. [CB0000005222]

CDEC1319**Child Guidance (3 credits)**

An exploration of common behavior problems of

young children in an early childhood setting. Emphasis on positive guidance techniques for effective behavior management. The student will summarize general theories related to child guidance and explain how guidance teaches young children autonomy and self-discipline, while promoting development of positive self-concept and prosocial behaviors. The student will apply appropriate guidance methods for specific situations relating to children's behaviors and demonstrate skills in supporting children to resolve conflicts. (3 lecture and 1 laboratory hour per week). Corequisite: READ 0309. [CB0000005222]

CDEC1354**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 demonstrate knowledge of principles of growth and development; normal developmental stages in physical, cognitive, social and emotional domains; major theories of development, i.e., behaviorial, cognitive, language acquisitions, developmental; the impact of developmental processes on early childhood practices; types and techniques of objective observation; the importance of play in development; and biological and environmental influences on growth and development. The student will demonstrate skills in the practical application of developmental principles and theories, objective observation techniques, and recognition of normal growth and developmental patterns. (3 lecture hours per week). Corequisite: READ 0309. [CB0000005222]

CDEC1356**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 describe the role of the teacher in promoting emergent literacy, analyze various theories of language development, and sequence the stages of emergent literacy. The student will create print rich environments for young children and select and share appropriate literature with young children. (2 lecture and 3 laboratory hours per week). Corequisite: READ 0309. [CB0000005222]

CDEC1357**Math and Science for Early Childhood (3 credits)**

An exploration of principles, methods, and materials for teaching young 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 classroom. The student will develop teacher

strategies which promote thinking and problem-solving skills in young children, utilize observation and task assessment as a basis for planning discovery experiences for the individual child, and select and/or prepare developmentally appropriate materials to support the attainment of math and science concepts. (2 lecture and 3 laboratory hours per week). Corequisite: READ0309. [CB0000005222]

CDEC1358**Creative Arts for Early Childhood (3 credits)**

An exploration of principles, methods, and materials for teaching young children music, movement, visual arts, and dramatic play through process-oriented experiences to support divergent thinking. The student will describe the developmental sequences for the creative arts and describe how process-oriented experiences enhance creativity/divergent thinking. The student will demonstrate the ability to encourage divergent thinking within the classroom through open-ended questioning techniques and plan and implement developmentally appropriate activities for music, movement, visual arts, and dramatic play. (2 lecture and 3 laboratory hours per week). Corequisite: READ 0309. [CB0000005222]

CDEC1359**Children With Special Needs (3 credits)**

A survey of information regarding children with special needs including possible causes and characteristics of exceptionalities, educational intervention, available resources, referral processes, and the advocacy role and legislative issues. The student will demonstrate knowledge of causes, incidence, and characteristics of exceptionalities related to cognitive, physical, social, and emotional domains of development; current terminology and practices for educational intervention; availability and accessibility of appropriate resources; accommodation in inclusive early childhood settings; legal mandates and their impact on the early childhood practices and environment; and the role of advocacy for children with special needs and their families. The student will demonstrate skills in recognition of indicators of exceptionalities; practical application of techniques for educational intervention and accommodation; identification of appropriate resources and referral practices for individual children and families; interpretation of the impact of legal mandates on early childhood programs; and advocating for children with special needs and their families. (3 lecture hours per week). Corequisite: READ 0309. [CB0000005222]

CDEC1370**Children With Special Needs Internship (3 credits)**

The student applies skill and knowledge of young children in an early childhood setting. The student receives practical training and experiences in the domain of children with learning disabilities under the supervision of a professional

team. (9 laboratory hours per week). Prerequisites: CDEC 1359, CDEC 1470. Corequisite: READ 0309. [CB0000005222]

CDEC1384

Cooperative Ed. in Child Development 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 work experience. This course may be repeated if topics and learning outcomes vary through the paid work experience. (1 lecture and 20 laboratory hours per week). Corequisite: READ 0309. [CB0000005222]

CDEC1470

Observation and Assessment Skills (4 credits)

This course is a study of principles and theories of child growth and development and their relationship to the observation and assessment of young children. The course will include developmental characteristics, current issues and trends, with referral and resource information. (3 lecture and 2 laboratory hours per week). Corequisite: READ 0309. [CB0000005222]

CDEC 2321

The Infant and Toddler (3 credits)

A study of appropriate infant and toddler (birth to 3 years) programs, including an overview of development, quality caregiving routines, appropriate environments, materials and activities, and teaching/guidance techniques. The student will demonstrate a knowledge of principles of quality infant/toddler caregiving; elements of appropriate indoor and outdoor environments; developmentally appropriate materials, activities, and teaching/guidance techniques; and normal growth and development of children from birth to 3 years. (3 lecture hours per week). Corequisite: READ 0309. [CB0000005222]

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 apply knowledge of a safe and healthy learning environment, as well as of self, social, and guidance domains. The student will utilize skills in writing, speaking, teamwork, time management, creative thinking, and problem solving. (1 lecture and 10 laboratory hours per week). Corequisite: READ 0309. [CB0000005222]

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). The four functional areas of study are creative, cognitive, physical, and communication. The student will apply knowledge of creative, cognitive, physical, and communication. The student will utilize skills in writing, speaking, teamwork, time management, and problem-solving. (1 lecture and 10 laboratory hours per week). Corequisite: READ 0309. [CB0000005222]

CDEC 2384

Cooperative Ed. in Child Development 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 work experience. This course may be repeated if topics and learning outcomes vary. (1 lecture and 20 laboratory hours per week). Corequisite: READ 0309. [CB0000005222]

CDEC 2426

Administration of Programs for Children I (4 credits)

A practical application of management procedures for early care and education programs, including a study of operating, supervising, and evaluating programs. Topics on philosophy, types of programs, policies, fiscal management, regulations, staffing, evaluation, and communication. The student will employ knowledge of programs, philosophies, curriculums, and budget basics; develop goals and objectives, written/oral communications, parent communications; and interpret and supervise regulations, policies, staffing, and evaluating. (3 lecture and 2 laboratory hours per week). Corequisite: READ 0309. [CB0000005222]

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 demonstrate skills in fiscal planning and analysis; legal and ethical issues; personnel management and team building; advocacy and professionalism; parent education and partnership; and technical applications in programs. The student will utilize skills in speaking, writing, computation, and computer utilization. (3 lecture and 2 laboratory

hours per week). Corequisite: READ 0309. [CB0000005222]

Communications

*Cathy Forsythe, Department Chairperson
William C. Lewis, Mark Moss, Jerry Perkins*

COMM1311

Basic Recording Techniques (3 credits)

This course familiarizes the student with modern multi-track recording techniques. The course includes live 8-track recording sessions, offering the student the opportunity to apply the related techniques. (2 lecture and 2 laboratory hours per week). Corequisite: READ 0310. [CB0000008434]

COMM1312

Intermediate Recording Techniques (3 credits)

Under the guidance of qualified instructors, the student gains experience with projects such as demo tapes, radio spots, jingles, or master tapes of records on the 16 track equipment. Studies also include the examination of sound reinforcement systems and the practical experience of assisting the ACC audio staff with programs and concerts on and off campus. (2 lecture and 2 laboratory hours per week). Corequisite: READ 0310. [CB0000008434]

COMM1313

Advanced Audio Recording Techniques (3 credits)

This course is primarily a recording project course. Under the guidance of qualified instructors, the student produces approved projects such as demo tapes, radio spots, jingles, or master tapes for records. Studies also include the examination of sound reinforcement systems and the practical experience of assisting the ACC audio Staff with programs and concerts on and off campus. Students arrange scheduled studio time by appointment. (2 lecture and 2 laboratory hours per week). Corequisite: READ 0310. [CB0000008434]

PRCD 1311

Public Relations (3 credits)

This course includes a study of the principles and practices within the field of public relations, with special emphasis on publicity problems of the public schools and colleges. By means of the text, outside reading, and the lectures, students examine a special type of journalism. (3 lecture hours per week). Corequisites: ENGL 0310 and READ 0310. [CB0000008434]

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 Teleprompters

and computerized news editing systems. Students will experience the creation of newscasts for live, on-air broadcasts. (2 lecture and 4 lab hours per week)

RTVB1317
Survey of Electronic Media
(3 credits)

A survey of the broadcast and cable industry. Topics include the history of the broadcast and cable industries, operation of radio and TV stations, cable facilities, programming practices of radio stations and FCC organization and regulatory activity. Also includes career opportunities in broadcasting and cable and the impact of the new media. Historical lessons from the various media forms will be analyzed. (3 Lecture hours per week)

RTVB1325
TV Studio Production
(3 credits)

A study of basic television production as it applies to live and taped studio programming. Topics include studio camera operation, television audio and television directing with an emphasis on underlying principles of video technology. The course will examine the essential elements necessary for editing videotape. (2 lecture and 4 lab hours per week)

RTVB1329
Writing for Electronic Media
(3 credits)

An introduction to the 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 lab hours per week)

RTVB1355
Radio and Television Announcing
(3 credits)

An introduction to radio and TV announcing emphasizing the development of skills including voice quality, articulation, enunciation, and pronunciation. Topics include typical announcing types such as news, sports, commercial and disc jockey and a survey of the fields of radio and TV announcing. (2 lecture and 4 lab hours per week)

RTVB1380, 1381, 2380, 2381
Cooperative Education - Radio/TV Broadcasting
(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 work experience. This course may be repeated if topics and learning outcomes vary. (1 lecture and 20 lab hours per week)

RTVB1391
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 lab hours per week)

RTVB1409
Audio/Radio Production I
(4 credits)

An introduction to the concepts and techniques of sound productions including mixing, recording, and editing techniques. (2 lecture and 6 lab hours per week)

RTVB1421
TV Field Production
(4 credits)

A study of the pre-production, production and post-production techniques involved in field television production. Elements 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. Basic videotape editing will be utilized in the construction of news-style video packages. Non-linear editing concepts and applications will be examined. (2 lecture and 6 lab hours per week)

RTVB2335
TV Production Workshop I
(3 credits)

Study of advanced application and design of video productions in location or studio shoots with real deadlines and quality control restrictions. Students will produce programming for KACC-TV. (2 lecture and 4 lab hours per week)

RTVB2339
Broadcast Sales
(3 credits)

Instruction in sales methods, audience measurement, demographics, station promotion, advertising and public relations. (2 lecture and 4 lab hours per week)

RTVB2431
Audio Radio Production III
(4 credits)

Presentation of advanced concepts in audio/radio recording and editing. Topics include digital editing, sound processing systems, and multi-track mixdown recording techniques. (2 lecture and 6 lab hours per week)

Computer Science

Judy Endsley, Thomas Magliolo

BCIS1301
Micro-Computer Applications
(3 credits)

An introduction to understanding and using

micro-computers, this course focuses on the fundamentals of micro-computer hardware including design, interfacing, and operation. It includes hands-on use of micro-computers using common application programs and popular software. This course is designed for non-computer science majors. (3 lecture hours per week). Corequisite: READ 0309. [CB5212025227]

BCIS1310
BASIC Programming
(3 credits)

This course introduces the fundamental concepts of the BASIC programming language as applied to micro-computers. It includes problem solving, applications, graphics, music, and other programming techniques applicable to micro-computers. The course is designed for non-computer science majors. (2 lecture and 3 laboratory hours per week). Corequisites: MATH 0310 and READ 0309. [CB5212025127]

BCIS1416
Computer Programming - BASIC
(4 credits)

This course is a study of computer programming using the BASIC language. (3 lecture and 3 laboratory hours per week). [CB5212025227]

BCIS1432
Computer Programming - COBOL
(4 credits)

This course is a study of computer programming using the Common Business Oriented Language. This language is commonly used in business applications. The course contains topics on design, coding, testing, and documentation of a computer program, written in COBOL. Other topics include input, output, computations, branching, functions, subroutines, tables, records, and file handling. (3 lecture and 3 laboratory hours per week). [CB5212025227]

BCIS2390
Business Systems Analysis
(3 credits)

This course includes a study of business systems, analysis, and design. (3 lecture hours per week). Prerequisites: BCIS 1432. [CB5212025327]

BCIS2416
Computer Programming - Visual Basic
(4 credits)

This course is a study of computer programming using the Visual Basic computer language. The course contains topics on design, coding, testing, and documentation of a computer program written in Visual Basic. (3 lecture and 3 laboratory hours per week). Prerequisite: COSC 1418, or CSCI 1470, or equivalent experience. [CB5212025327]

BCIS2432
Computer Programming - Adv. COBOL
(4 credits)

A detailed study of Common Business Oriented Language. This course is a continuation of BCIS

1432. The course contains topics on design, coding, testing, and documentation of a computer program written in COBOL. (3 lecture hours and 3 laboratory hours per week). Prerequisite: BCIS 1432. [CB5212025327]

COSC1306
Introduction to Computers
(3 credits)

This course is an overview of the basic concepts of computer information processing. The functional characteristics of digital computers and their capabilities and limitations are discussed. The course also includes a study of the application of computers in business, industry, and society. This course is designed for non-computer science majors. (3 lecture hours per week).

[CB1101015227]

COSC1309
Program Design and Logic
(3 credits)

This course is a study of computers and program design. An introduction to the basic skills and tools necessary to analyze a problem and develop a solution algorithm. (3 lecture hours per week). [CB1102015127]

COSC1335
Computer Information System Programming
(3 credits)

An introduction to Computer Programming in a business environment. Emphasis on the fundamentals of structured design, development, testing, implementation, and documentation of applications. Includes coverage of language syntax, data and file structures, input-output devices, and disk files. (3 lecture and 3 laboratory hours of class instruction and participation per week). [CB1102015227]

COSC1401
Introduction to Computers
(4 credits)

This course contains an overview of computer concepts, computer vocabulary, and microcomputer applications. The course requires the use of a microcomputer and application software. Students acquire the basic skills in the use of personal computers and software applicable to the management of information: text processing, spreadsheet, graphics, database management, and the personal computer desktop. Elementary concepts of programming are introduced. (3 lecture and 3 laboratory hours per week). [CB1101015227]

COSC1417
Computer Programming - FORTRAN
(4 credits)

This course is a study of computer programming using the FORTRAN computer language. Topics include input, output, computations, branching, functions, subroutines, arrays, records, and file handling. Students will need algebra. (3 lecture and 3 laboratory hours per week). [CB1102015227]

COSC1418
Pascal Programming Language
(4 credits)

This course is a study of computer programming using the Pascal computer language. Topics include: the use of procedures, structured loops, decisions, functions, text files, and arrays. (3 lecture hours and 3 laboratory hours per week). [CB1102015227]

COSC1419
Computer Programming Language - Assembly
(4 credits)

This course includes a study of an assembly programming language. The student must have the approval of the department chairperson. (3 lecture and 3 laboratory hours per week). [CB1102015227]

COSC1420
Computer Programming - C++
(4 credits)

This course is an introduction to the "C++" language programming language. The course contains topics on design, coding, testing, and documentation of a computer program written in "C++". Other topics include input, output, computations, branching, functions, arrays, records, file handling, and pointers. (3 lecture and 3 laboratory hours per week). Prerequisites: Computer language: COSC 1418 or equivalent. Prerequisite: MATH 1314. [CB1102015227]

COSC1430
Special Topics
(4 credits)

This course consists of special projects designed to meet individual student's needs and interest. The student must have the approval of the department chairperson. (3 lecture and 3 laboratory hours per week). [CB1102015227]

COSC2315
Data Structures
(3 credits)

This course is an introduction to data structures and algorithm development. Topics include: arrays, pointers, records, linked list, stacks, queues, recursion, binary trees, sorting, and searching. (3 lecture hours per week). Prerequisite: COSC 1418 or CSCI 1470. [CB1102015327]

COSC2415
Database System
(4 credits)

This course is an introduction to data base, data organization, structure, and design. The student will use data base application software to build and access a database. (3 lecture and 3 laboratory hours per week). [CB1102015327]

COSC2418
Adv. Pascal Programming Language
(4 credits)

This course is an introduction to data structures using structured algorithm development. Topics include: searching, sorting, linked list, stacks, queues, recursion, an introduction to binary trees, and file manipulation. (3 lecture hours and 3 laboratory hours per week). Prerequisite: COSC 1418. [CB1102015327]

COSC2420
C++ Programming Language
(4 credits)

Topics include object-oriented programming, dynamic memory allocation, classes, constructor and destructor functions, function overloading, class inheritance, polymorphism, stream input/output, manipulator functions, file input/output, function templates, class templates, and exception handling. (3 lecture hours and 3 laboratory hours per week). Prerequisite: COSC 1420. [CB1102015327]

CSCI 1306
Exploring the Internet
(3 credits)

This course studies the use of the Internet: Internet Access Tools, Data Format, retrieving information, bookmarks, Indexes and Searching, Library catalogs on the Internet, Commercial and Government Resources. (2 lecture and 2 laboratory hours per week). [CB0000006021]

CSCI1400
Introduction to Computer Science
(4 credits)

This course is computer literacy; it contains an overview of computer concepts, computer vocabulary, and microcomputer applications. The course requires the use of a microcomputer and application software. Students acquire the basic skills in the use of personal computers and software applicable to the management of information: text processing, spreadsheet, graphics, database management, and an introduction to programming. (3 lecture and 3 laboratory hours per week). [CB0000006021]

CSCI1405
Microcomputer Applications I
(4 credits)

This course uses microcomputers and business popular productivity software. The course contains topics on software installation and DOS requirements. (3 lecture and 3 laboratory hours per week). [CB0000006021]

CSCI1432
Data Communication and Networking
(4 credits)

This course is an introduction to local area networks and data communications. Topics include: network topologies and configurations, installation, maintenance, print spooling, asynchronous communications and connectivity

issues. Students will learn to use communication software and a peer-to-peer network. (2 lecture and 3 laboratory hours per week). Prerequisite: COSC 1401. [CB0000006021]

CSCI1470

Computer Programming - C (4 credits)

This course is an introduction to the C programming language. The course contains topics on design, coding, testing, and documentation of a computer program written in C. (3 lecture and 3 laboratory hours per week). [CB0000006021]

CSCI1486

ADA Programming Language (4 credits)

This course is a study of computer programming using the ADA computer language. Topics include: software development problem, problem solving techniques, control structures, subprograms, elementary data types, data structures, file manipulation, and exception handling. (3 lecture and 3 laboratory hours per week). [CB0000006021]

CSCI2305

Logic Analysis and Boolean Algebra (3 credits)

This course includes a study of digital principles and boolean algebra. The student must have the approval of the department chairperson. (3 lecture hours per week). [CB0000006021]

CSCI2336

Cooperative Education (3 credits)

The student will work in a computer related position for a minimum of 20 hours per week and attend a 1 hour seminar each week. Students must have a job in the field of computer science; the supervising employer cooperates with the college to enable students to achieve a blend of work and study. (1 lecture and 20 laboratory hours per week). This course may be taken a maximum of two times for credit. [CB0000006021]

CSCI2406

Internet Programming (4 credits)

The course contains topics on programming for the Internet and the World Wide Web. The course contains topics on design, coding, testing, and documentation of a computer program written for use on the Internet. (3 lecture and 3 laboratory hours per week). [CB0000006021]

CSCI 2418

Adv. Visual Basic Programming (4 credits)

This course contains advance topics on the computer programming language of Visual Basic. Topics include designing a user interface that works with a database. (3 lecture and 3 laboratory hours per week). Prerequisite: BCIS 2416. [CB0000006021]

CSCI 2432

Advanced Networking I (4 credits)

This course provides an in-depth study of networking operating systems and network system administration, including design, configuration, installation, and management of specific network operating systems. (3 lecture hours and 3 laboratory hours per week). Prerequisite: CSCI 1432. [CB0000006021]

CSCI2434

Advanced Networking II (4 credits)

Advanced networking management topics are covered, including network security, directory services, network performance analysis, network capacity planning and traffic analysis, network troubleshooting resources and tools, and network expansion and migration technologies. (3 lecture hours and 3 laboratory hours per week). Prerequisite: CSCI 2432. [CB0000006021]

CSCI2470

Computer Programming (Adv. C) (4 credits)

This course is a continuation of CSCI 1470. This course also includes advance elements of the C programming language. (3 lecture and 3 laboratory hours per week). Prerequisite: CSCI 1470. [CB0000006021]

CSCI2476

Visual C++ Programming (4 credits)

This course teaches the student how to create a user interface using Visual C++. Topics include: designing a user interface, creating forms and buttons, making choices with boxes and buttons, text boxes, scroll bars and labels, creating pictures, menu bar, submenus, dialog boxes, the basics of writing code, and supporting topics. (3 lecture and laboratory hours per week). Prerequisite: COSC1420. [CB0000006021]

CSCI2484

Database Programming (4 credits)

This course is the study of popular relational database. The student will query the database and program the database. Topics include: SQL commands, relations, index files, forms, reports, macros, import/export data, security, application options, backup, recovery, and coding. (3 lecture and 3 laboratory hours per week). Prerequisite: COSC 2415. [CB0000006021]

Court Reporting

Cindy Colvin, Karen Downey, Joe Jackson, Laura Noulles, Robin Pearsall, Jim Preston, Roland Scott

CTRP1250

Keyboarding for Court Reporters (2 credits)

This course places emphasis on the student passing two five-minute speed tests of 60 words-per-minute with a maximum of five errors each. Speed building techniques are utilized, and the course introduces the production of court reporting forms such as cover pages, certificates, indexes and testimony format used in preparing transcripts. (2 lecture and 1 laboratory hour per week). Prerequisite: READ 0310. [CB0000005829]

CTRP1311

Grammar and Punctuation I (3 credits)

This course focuses on the study of basic grammar as applied to the reporting profession, with emphasis on parts of speech; formation of plurals and possessives, verbal, adverbial, and adjective comparisons; sentence patterns; capitalization; and vocabulary development. This study approaches English grammar from the proofreading aspect rather than from the writing aspect. (2 lecture and 3 laboratory hours per week). Prerequisite: READ 0310. [CB0000005829]

CTRP1312

Grammar and Punctuation II (3 credits)

This course continues with specialized English training applied to the reporting profession, including the study of clauses and phrases, rules of punctuation, capitalization, word division, proper transcription, forms for numerals, use of abbreviations, transcript editing, proofreading, and NCRA punctuation. The student is given numerous dictation for transcribing and is tutored in voice and speech patterns while reading notes aloud. (2 lecture and 3 laboratory hours per week). Prerequisite: READ 0310, CTRP 1311. [CB0000005829]

CTRP1320

Law and Legal Terminology (3 credits)

Course objectives are to ensure the student's comprehension of meanings and applications of legal terminology with instruction in the various fields of law encountered in the practice of the court reporter. Emphasis is placed on the judicial system, types of courts, jurisdictions, and appellate procedures. Court procedures and responsibilities of the reporter are fully covered, including ethics of the profession. The course also includes researching of legal reference books and handling of citations in the record. (3 lecture hours per week). Prerequisite: READ 0310. [CB0000005829]

CTRP1330
Medical Terminology
(3 credits)

This course includes a study of human anatomy, skeletal structure, systems of the body, and medical specialties, coupled with lectures, study guides, tests, and exercises designed to insure the student's knowledge of the components in building a medical vocabulary and the application thereof. (3 lecture hours per week. Prerequisite: READ 0301. [CB0000005829]

CTRP1400
Machine Shorthand Theory
(4 credits)

This course presents the theory of machine shorthand, vocabulary development, and skill building through reading and machine practice. Dictation and transcription of machine shorthand notes are included. (2 lecture and 8 laboratory hours per week). Prerequisite: READ 0310. [CB0000005829]

CTRP1410
Machine Shorthand for Scopists
(4 credits)

This includes the development of vocabulary and skill building through concentrated emphasis on live dictation and the transcription of machine shorthand notes. The student's objective is to attain the speed of 80 words per minute in machine shorthand. Emphasis is placed on production of transcripts, including daily supervised transcription practice. Prerequisite: CTRP 1400. [CB0000005829]

CTRP1411
Machine Shorthand I (60-80-100)
(4 credits)

This course includes the development of vocabulary and skill building through concentrated emphasis on live dictation and transcription of machine shorthand notes. The student's objective in the course is to attain the speed of 100 words per minute. The student advances at his/her own rate. Supervised daily transcription practice is required. (2 lecture and 8 laboratory hours per week). Prerequisite: READ 0310, CTRP 1400. [CB0000005829]

CTRP1412
Machine Shorthand II (120-140)
(4 credits)

Emphasizing increased skill and speed, the objective of the course is for students to attain the speed of 140 words per minute. The student advances at his/her own rate. Supervised daily transcription practice is required. (2 lecture and 8 laboratory hours per week). Prerequisite: CTRP 1411. [CB-0000005829]

CTRP2311
Courtroom Procedures
(3 credits)

Using instructors as attorneys, witnesses, and court personnel, untimed simulated courtroom situations are presented in this course. Emphasis is placed on varied courtroom practices, such as voir dire examinations, opening and closing

statements, objections, marking of exhibits, indexing and filing of notes, citations, readback, and preparation of transcripts in required format. (2 lecture and 3 laboratory hours per week). Prerequisites: CTRP 1412, CTRP 2320. [CB0000005829]

CTRP2313
Cooperative Education in Court Reporting
(3 credits)

Participation in work internship of a minimum of 20 hours per week. Under the supervision of the employer and the court reporting instructional advisor, the student receives on-the-job training related to his/her degree plan. The student will attend a weekly one-hour lecture on campus with the advisor. The student may begin the cooperative upon completion of all 180 WPM requirements, and the student will complete a minimum of 40 actual writing hours with the court reporter on job assignments. The student will produce a salable transcript of no less than 50 pages (unpaid work). A journal will be kept by the student recounting his/her experiences on the job regarding knowledge gained and objectives accomplished. The student will keep a record of actual machine writing hours. completion of at least 40 actual writing hours. (1 lecture and 20 laboratory hours per week). Prerequisites: CTRP 2411, CTRP 2320. [CB0000005829]

CTRP2314
Cooperative Education in Scoping
(3 credits)

Participation in work internship of a minimum of twenty hours per week. Under the supervision of the employer and the court reporting instructional advisor, the student receives on-the-job training related to his/her degree plan. The student will also be required to attend a one-hour lecture on campus each week. 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). Prerequisites: CTRP 1400. [CB0000005829]

CTRP2315
Captioning Reporting I
(3 credits)

This course is an introduction to captioning procedures utilizing realtime captioning equipment, both software and hardware; dictation practice; captioning/CART experience. (2 lecture and 3 laboratory hours per week). Prerequisite: CTRP 1412.

CTRP2320
Reporting Technology
(3 credits)

This introduction to modern technology applicable to the court reporting profession 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). Prerequisites: CTRP 1411, CTRP 1312. [CB0000005829]

CTRP 2325
Captioning Reporting II
(3 credits)

This course is a continuation of captioning/CART techniques. Emphasis is placed on off-line and on-line captioning and realtime reporting of seminars, conferences, and conventions. The course includes extensive supervised community interaction. (3 lecture and 3 laboratory hours per week). Prerequisites: CTRP2315.

CTRP2330
Technical Dictation
(3 credits)

This course includes dictation emphasizing all aspects of technical terminology, including medical terminology, legal terminology, surveying terminology, engineering terminology, chemical terminology, maritime terminology, patent terminology, aerospace terminology, etc. Students will present transcription assignments in correct format, including proper transcription of mathematical and chemical formulae. This course utilizes one- and two-voice dictation material. (2 lecture and 3 laboratory hours per week). Prerequisite: CTRP 1412. [CB0000005829]

CTRP2335
Realtime Dictation.
(3 credits)

Emphasis will be placed on differentiations made to ensure a conflict-free system of machine writing by drill and dictation of geographical matter, names in current news and history, number inputting, and methods of preparing transcripts of presented matters. (2 lecture and 3 laboratory hours per week). Prerequisites: CTRP 1411, CTRP 2320, ENGL 0310. [CB0000005829]

CTRP2341
CSR and CP Prep
(3 credits)

Readiness to take and pass state tests and the NCRA RPR examination is the objective of this course. Dictation will include drill matter and testing ranging upward to 260 WPM on testimony, literary material, jury charge, and legal opinion. Weekly qualifying tests will be required of each student. Written knowledge test material will be included. (3 lecture hours per week). Prerequisites: CTRP 2411, CTRP 2311. [CB0000005829]

CTRP2350
Reporting and Office Procedures
(3 credits)

This course acquaints the student with various fields of reporting, essential qualifications of a reporter, reporter ethics, procedures in the freelance office, transcript production of interrogatories, statements, depositions, certification of questions. Techniques of billing, basic bookkeeping, tax rules pertaining to the reporter are covered. Each student will prepare a

personal resume and emphasis will be placed on attending mock depositions and producing salable transcripts thereof. (2 lecture and 3 laboratory hours per week). Prerequisite: CTRP 1412. [CB0000005829]

CTRP2411
Machine Shorthand III (160-180)
(4 credits)

This course continues an emphasis on skill and speed building. The student's objective is to attain the speed of 180 words per minute. (2 lecture and 8 laboratory hours per week). Supervised daily transcription practice is required. Prerequisites: CTRP 1412, CTRP 1311, CTRP 1312. [CB0000005829]

CTRP2412 [CTRP2512]
Machine Shorthand IV (200-225)
(4 credits)

This course continues an emphasis on skill and speed building, culminating in the student's attainment of the speed of 225 words per minute. Supervised daily transcription practice is required. (2 lecture and 8 laboratory hours per week). Prerequisites: READ 0310, CTRP 2411. [CB0000005829]

Criminal Justice

D.A. Miller, Jr., Department Chairperson

CJCR1300
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).

CJCR1304
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).

CJCR2325
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).

CJLE2345
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).

CJLE2420
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 and approval of the college department administrator. (3 lecture and 4 laboratory hours per week).

CJLE2421
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 college department administrator. (3 lecture and 4 laboratory hours per week).

CJLE2522
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 college department administrator. (3 lecture and 5 laboratory hours per week).

CJSA1308
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).

CJSA1325
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).

CJSA1351
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).

CJSA1364, CJSA1365
Practicum (or Field Experience) - Criminal Justice Studies
(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. (21 external hours per week).

CJSA2302
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).

CJSA2323
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).

CJSA2332
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).

CJSA2364, CJSA2365**(3 credits)****Practicum (or Field Experience) - Criminal Justice Studies****(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. (21 external hours per week).

CRIJ1301**Introduction to Criminal Justice****(3 credits)**

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

CRIJ1306**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).

CRIJ1307**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).

CRIJ1310**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).

CRIJ1313**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).

CRIJ2301**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).

CRIJ2313**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).

CRIJ2314**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).

CRIJ2323**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).

CRIJ2328**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).

Drafting*Marianne Davis, Department Chairperson***DFTG1313****Drafting for Specific Occupations****(3 credits)**

Discussion of theory and practice with drafting methods and the terminology required for non-drafting majors to prepare working drawings in their occupational fields. A course for those who desire a knowledge of basic print reading and construction drawings. (3 lecture and 1 laboratory hour per week). [CB0000008622]

DFTG1356**Descriptive Geometry****(3 credits)**

Examination of the graphical solution to problems involving points, lines and planes in space. (2 lecture and 4 laboratory hours per week). Prerequisite: DFTG 1405. [CB0000008622]

DFTG1405**Technical Drafting****(4 credits)**

Introduction to the principles of drafting to include terminology and fundamentals, including size and shape description, projection methods, geometric construction, sections, auxiliary views and reproduction processes. (2 lecture and 4 laboratory hours per week). [CB0000008622]

DFTG1409**Basic Computer Aided Drafting****(4 credits)**

An introduction to basic computer-aided drafting. Emphasis is placed on drawing setup; creating and modifying geometry; storing and retrieving predefined shapes; placing, rotating, and scaling objects; adding text and dimensions; using layers; coordinating systems; as well as input and output devices. (2 lecture and 4 laboratory hours per week). [CB0000008622]

DFTG1417**Architectural Drafting-Residential****(4 credits)**

Architectural drafting procedures, practices, and symbols, including preparation of detailed working drawings for residential structure with emphasis on light frame construction methods. (2 lecture and 4 laboratory hours per week). [CB0000008622]

DFTG1433**Mechanical Drafting****(4 credits)**

An intermediate course covering detail drawings with proper dimensioning and tolerances, use of sectioning techniques, common fasteners, isometric and oblique drawings, including bill of materials. (2 lecture and 4 laboratory hours per week). Prerequisite: DFTG 1405. [CB0000008622]

DFTG1444**Pipe Drafting****(4 credits)**

A study of pipe fittings, symbols, specifications and their applications to a piping process system. This application will be demonstrated through the creation of symbols and their usage in flow diagrams, plans, elevations, and isometrics. (2 lecture and 4 laboratory hours per week). Prerequisite DFTG 1405. [0000008622]

DFTG1452**Intermediate Computer-Aided Drafting****(4 credits)**

A continuation of practices and techniques used in basic computer-aided drafting emphasizing batched files, script files, customized program menus, and extracted attributes. (2 lecture and 6 laboratory hours per week). Prerequisite: DFTG 1409. [CB0000008622]

DFTG1491**Special Topics in Drafting-Advanced****(4 credits)**

Topics address recently identified current event, skills, knowledge, and/or attitudes and behaviors pertinent to the technical or occupation and relevant to the professional development of the

student. (3 lecture and 4 laboratory hours per week). [CB000008622]

DFTG2410
Structural Drafting
(4 credits)

Discussion of detail drawing of structural shapes for fabrication with emphasis on framed and seated connectors and beam and column detailing. Designed to meet the standards of American Institute of Steel Construction, including units on concrete detailing conforming to American Concrete Institute standards. (2 lecture and 4 laboratory hours per week). [CB000008622]

DFTG2432
Advanced Computer-Aided Drafting
(4 credits)

Exploration of the use of system customization for drawing production enhancement and the principles of data manipulation. Presentation of advanced application such as three-dimensional objects creation and linking graphic entities to external nongraphic data. (2 lecture and 6 laboratory hours per week). Prerequisite: DFTG 1452. [CB000008622]

DFTG2440
Solid Modeling/Design
(4 credits)

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. (2 lecture and 4 laboratory hours per week). Prerequisites: DFTG 2432. [CB000008622]

DFTG2481
Cooperative Education-Drafting
(4 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 the supervision of the college and the employer, the student combines classroom learning with work experience. Directly related to a technical discipline, specific learning objectives guide the student through the paid work experience. This course may be repeated if topics and learning outcomes vary. (1 lecture and 21 laboratory hours per week). [CB000008622]

Drama

C. Jay Burton, Department Chairperson

DRAM1220
Rehearsal and Performance
(2 credits)

This course is an activities course in which the student participates in theatre productions either as an actor or crew member. (6 laboratory hours per week). [CB5005015230]

DRAM1221
Rehearsal and Performance
(2 credits)

This course is an activities course in which the student participates in theatre productions either as an actor or crew member. (6 laboratory hours per week). [CB5005015230]

DRAM1310
Introduction to the Theatre Arts
(3 credits)

This course is the study of the principles of drama and the development of the Theatre as an art as evidenced through study of areas of productions past and present. (3 lecture and 2 laboratory hours per week). Corequisites: READ 0310 AND ENGL 0310. [CB5005015130]

DRAM1322
Movement and Dance for the Performing Arts
(3 credits)

This course provides instruction and participation in stage movement and beginning dance. (1 lecture and 3 laboratory hours per week). [CB5003015230]

DRAM1330
Introduction to Technical Theatre
(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). Corequisites: READ 0310, ENGL 0310 and MATH 0310. [CB5005025130]

DRAM1341
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). Corequisites: READ 0310 and ENGL 0301. [CB5005025230]

DRAM1351
Introduction to Acting
(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 laboratory hours per week). [CB5005035130]

DRAM1352
Advanced Acting
(3 credits)

This course is a study of script analysis, character analysis, characterization, and situation. (2 lecture and 4 laboratory hours per week). Corequisites: READ 0310 and ENGL 0310. [CB5005035130]

DRAM2120
Rehearsal and Performance
(1 credit)

This course is an activities course in which the student participates in theatre productions either as actor or crew member. (6 laboratory hours per week). [CB5005015230]

DRAM2121
Rehearsal and Performance
(1 credits)

This course is an activities course in which the student participates in theatre productions either as actor or crew member. (6 laboratory hours per week). [CB5005015230]

DRAM2331
Intermediate Technical Theatre
(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). Corequisites: READ 0310, ENGL 0310, and MATH 0310. [CB5005025130]

DRAM2336
Theatre Speech
(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). Corequisites: READ 0310 and ENGL 0310. [CB5005035230]

DRAM2360
Modern Theatre Literature
(3 credits)

This course presents a survey of the dramatic literature and dramaturgical tendencies in Europe and America since the time of Ibsen. (3 lecture hours per week). Corequisites: READ 0310 AND ENGL 0310. [CB2303015135]

DRAM2366
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. (2 hours lecture and discussion and a 2-hour laboratory viewing session with discussion per week). Prerequisites: READ 0310 and ENGL 0310. [CB5006025130]

Economics

Johanna Hume, Department Chairperson
Tim Reynolds, Gregory Roof

ECON1303
Consumer Economics
(3 credits)

This course shows the student how to make the most efficient use of business goods and services.

It provides insight into buying problems such as use and evaluation of advertising and into consumer financial problems such as banking, credit, personal accounting, budgeting, and installment buying. (3 lecture hours per week). Corequisites: READ 0310 and ENGL 0310. [CB1904025242]

ECON2301

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). Corequisites: READ 0310 and ENGL 0310. [CB4506015142]

ECON2302

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). Corequisites: READ 0310 and ENGL 0310. [CB4506015142]

Electronics

Ike Coffman, Department Chairperson

CETT1403

D.C. Circuits (4 credits)

This course is a study of direct current electricity that examines the relationships between voltage, current and resistance. The student learns the basic concepts of electricity and magnetism and studies circuit analysis using Ohm's Law, Kirchoff's Laws and special methods of analysis including Network Theorems. The student is also introduced to the Digital Multimeter (DMM), scientific calculator, computer based circuit simulation and the resistor color code with its electronic symbol. (3 lecture and 3 lab hours per week). Corequisites: MATH 1314 [CB000008824]

CETT1405

A.C. Circuits (4 credits)

This course introduces alternating current and analyzes its effect on passive electronic components such as capacitors, inductors and transformers. Studies include series and parallel AC circuits, phasors, capacitive and inductive

networks and resonance. Students are also introduced to the oscilloscope, where they learn to analyze and troubleshoot circuits using real-time waveforms. (3 lecture and 3 laboratory hours per week). Prerequisite: CETT 1403. Corequisite: MATH 1316.

CETT1425

Digital Fundamentals (4 credits)

This course introduces the student to digital electronics. It covers number systems, binary mathematics, truth tables, logic gates, combinational circuits, timing diagrams, flip-flops and counters. Analysis is done through Boolean algebra incorporating DeMorgans theorem and Karnaugh maps. Students are encouraged to tackle design problems using simulation software in the lab in addition to hands-on prototyping and troubleshooting. (3 lecture and 3 laboratory hours per week).

CETT1429

Solid State Devices (4 credits)

This course is an introduction to active semiconductor devices such as diodes, bipolar and field effect transistors and thyristors including other special purpose devices. The student studies the internal construction of each device including static and dynamic electrical characteristics and gets a chance to see the device in action in various circuit configurations. (3 lecture and 3 laboratory hours per week). Prerequisite: CETT 1403.

CETT1431

Technical Programming (4 credits)

Introduction to a high level programming language such as BASIC, PASCAL, or "C." Topics include structured programming and problem solving as they apply to technical applications. (3 lecture and 3 lab hours per week). Prerequisite: CETT 1425.

CETT 1449

Digital Systems (4 credits)

A course in electronics covering digital systems. Emphasis on application and troubleshooting digital systems using counters, registers, code converters, multiplexers, analog-to-digital-to-analog circuits, and large-scale integrated circuits. (3 lecture and 3 lab hours per week). Prerequisite: CETT 1425.

CETT1457

Linear Integrated Circuits (4 credits)

This course is an in-depth study of the operational amplifier. The student is introduced to the op-amp with a discussion of its electrical characteristics, operation, stabilization, testing and feedback techniques followed by an analysis of basic and advanced circuits including active filters, instrumentation and oscillators. This course also includes a brief look at other linear IC's that are used in phase locked loops and voltage regulators. (3 lecture and 3 laboratory hours per week). Prerequisite: CETT 1429.

CETT2380

Cooperative Education-Comp Maint Tech (4 credits)

Under the supervision of the employer and the Electronics Instructional Advisor, the student receives on the job training in his or her area of specialization through a cooperative agreement between the college, employer and the student. The student gets a chance to combine classroom learning with work experience to master concepts and skills involving tools, materials, equipment and procedures associated with the particular occupation in the industry.

CPMT1403

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). [CB000008824]

CPMT1411

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).

CPMT2433

Computer Integration (4 credits)

An advanced course in integration of computer hardware, software, and applications. Student will examine the architecture of modern microprocessors and microcomputer systems. Introduction to design and analysis for specialized applications. (3 lecture and 3 laboratory hours per week). Prerequisites: CETT 1425, CPMT 1411.

CPMT2437

Microcomputer Interfacing (4 credits)

Emphasizes the hardware aspects of microprocessor and microcomputer interfacing. Utilization of machine language programming to communicate with digital circuits and other commonly used external devices. (3 lecture and 3 laboratory hours per week). Prerequisite: CETT 1425, CPMT 1411.

CPMT2445

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: CETT 1425, CPMT 1411.

EECT2439

Communications Circuits (4 credits)

This course is an introduction to basic communication theory with emphasis on data communication. Common demodulation and modulation techniques with its associated circuitry will be studied. (3 lecture and 3 laboratory hours per week). Prerequisite: CETT 1425.

ELMT2433

Industrial Electronics (4 credits)

This course is a study of devices, circuits and systems used in automated manufacturing and process control. The student will explore the basic elements used for interfacing between mechanical and electronic inputs and outputs in process control. The course will also demonstrate how software programming can alter system operation. (3 lecture and 3 laboratory hours per week).

INTC1452

Analog Electronic Instrumentation I (4 credits)

This course is an introduction to basic measurement theory and the electronic concepts associated with measuring instruments. The student learns the design and use of instrumentation calibrators and calibration circuits used for servicing and calibration of temperature, flow-rate, pressure, light and a multitude of other varieties of transducers. (3 lecture and 3 laboratory hours per week).

INTC1453

Analog Electronic Instrumentation II (4 credits)

This course is a study of analog electronic controllers and complete electronic instrumentation systems. Topics covered include testing of discrete components, basic power supplies, amplifiers, oscillators and printed circuit board testing. The student will also get hands-on experience repairing and calibrating transmitters, recorders and controllers. (3 lecture and 3 laboratory hours per week). Prerequisite: INTC 1452.

INTC2436

Instrumentation and Installation (4 credits)

This is an advanced course that integrates material from INTC 1452 and INTC 1453 to design, size, install, connect and start up a small pilot plant. The student will learn how to tune controller loops and analyze process response, lay out process and control specifications, draw wiring and piping diagrams and assemble, align and calibrate instruments. (3 lecture and 3

laboratory hours per week). Prerequisite: INTC1453.

Emergency Medical Technology

Douglas Stevenson, Department Chairperson

EMMT 1213

Emergency Medical Technician-Basic Clinical (2 credits)

This course includes lectures and internships required to meet the certification requirements of the Texas Department of Health at the EMT-Basic level. Lectures include clinical orientation, patient documentation, an overview of internship objectives, and a summative evaluation. Additionally, the student is required to complete twenty-four hours of clinical observation and twenty-four hours of field internship with an approved ambulance service. The student must document a minimum of three approved ambulance patient transports while participating in the field internship. (1 lecture and 3 clinical hours per week). Corequisites: EMMT 1513 or EMMT 1613. [CB0000008040]

EMMT 1215

Emergency Medical Technician-Intermediate Clinical (2 credits)

This course includes lectures and clinical internships required to meet the certification requirements of the Texas Department of Health at the EMT-Intermediate Level. Lectures include clinical orientation, patient documentation, and an overview of clinical objectives and competencies, and a summative evaluation. Additionally, the student is required to complete a minimum of sixty-four hours of clinical internship in the areas such as emergency department, operating room, and respiratory therapy. The student will perform a required number of intravenous catheterizations and endotracheal intubations. (1 lecture and 4 clinical hours per week). Prerequisites: EMMT 1213, EMMT 1513 or EMMT 1613 or EMT-Basic Certification. Corequisites: EMMT 1216, EMMT 1615. [CB0000008040]

EMMT 1216

Emergency Medical Technician-Intermediate Field Clinical (2 credits)

This course includes lectures and field internships required to meet the certification requirements of the Texas Department of Health at the EMT-Intermediate level. Lectures include clinical orientation, patient documentation, an overview of field internship objectives and competencies, and a summative evaluation. Additionally, the student is required to complete a minimum of sixty-four hours of field internship with an approved Advanced Life Support ambulance with an approved preceptor. The student will complete an appropriate number of advanced life support ambulance runs. (1 lecture and 4 clinical hours

per week). Prerequisites: EMMT 1213, EMMT 1513 or 1613, or EMT Basic Certification. Corequisites: EMMT 1215 or EMMT 1615. [CB0000008040]

EMMT 1300

Medical Terminology (3 credits)

Students planning health science careers learn to understand and interpret medical terminology. Consists of Latin and Greek roots, prefixes and suffixes, as well as proper pronunciation and correct spelling. Students will have lectures, study guides and tests designed to insure the student's knowledge of the components in building a medical vocabulary and the application thereof. (3 lecture hours per week). Prerequisite: READ 0310. [CB0000008040]

EMMT 1513

Emergency Medical Technician-Basic Completion (5 credits)

This course is the completion of the Emergency Medical Technician-Basic for those who are currently certified as an Emergency Care Attendant. Lectures and skills will concentrate on the Department of Transportation Emergency Medical Technician-Basic guidelines in all aspects of pre-hospital emergency care and hazardous materials awareness. (4 lecture and 2 laboratory hours per week). Prerequisite: Current Texas Department of Health certification as an Emergency Care Attendant. Corequisite: EMMT 1213. [CB0000008040]

EMMT 1613

Emergency Medical Technician-Basic (6 credits)

Basic emergency care designed for those actively involved in treating sick and injured persons. Lecture and skills will concentrate on the Department of Transportation Emergency Medical Technician-Basic guidelines in all aspects of pre-hospital emergency care and hazardous materials awareness. Completion of this course will meet the Texas Department of Health requirements for examination for Emergency Medical Technician-Basic in the area of lecture, skills and extrication. (5 lecture and 3 laboratory hours per week). Corequisite: EMMT 1213. [CB0000008040]

EMMT 1615

Emergency Medical Technician-Intermediate (6 credits)

This course is the beginning of the advanced life support program. Topics presented in this course are from Basic Trauma Life Support (BTLS) and the Department of Transportation (DOT) Emergency Medical Technician-Paramedic National Training Course. Modules cover paramedic roles and responsibilities, human systems, patient assessment, shock and fluid therapy, and the respiratory system. Completion of the course will meet the Texas Department of Health requirements for examination as an

Emergency Medical Technician-Intermediate in the area of lecture and skills. (5 lecture and 3 laboratory hours per week). Prerequisites: EMMT 1213, EMMT 1513 or EMMT 1613 or EMT-Basic Certification. Corequisites: EMMT 1215, EMMT 1216. [CB0000008040]

EMMT 2114

Emergency Medical Technician-Paramedic Clinical I (1 credit)

This course includes lectures and clinical internships required to meet the certification requirements of the Texas Department of Health at the EMT-Paramedic level. Lectures include clinical orientation, patient documentation, an overview of clinical objectives and competencies, and a summative evaluation. Additionally, the student is required to complete a minimum of forty-eight hours of clinical internship in areas such as emergency department, surgery, intensive care and coronary care units (ICU/CCU), psychiatric, labor/delivery, pediatric units, burn unit and the morgue to provide further experience with patient care. (3 clinical hours per week). Prerequisites: EMMT 1615 or EMT-Intermediate Certification. Corequisite: EMMT 2612. [CB0000008040]

EMMT 2115

Emergency Medical Technician-Paramedic Clinical II (1 credit)

This course is a continuation of the clinical experience which includes lectures and clinical internships required to meet the certification requirements of the Texas Department of Health at the EMT-Paramedic level. Lectures include clinical orientation, patient documentation, an overview of clinical objectives and competencies, and a summative evaluation. Additionally, the student is required to complete an additional forty-eight hours of clinical internship in areas such as emergency department, surgery, intensive care and coronary care units and the morgue to provide further experience with patient care. (3 clinical hours per week) Prerequisites: EMMT 2114, EMMT 2612. Corequisites: EMMT 2216, EMMT 2613. [CB0000008040]

EMMT 2216

Emergency Technician-Paramedic Field Clinical (2 credits)

This course includes lectures and field internships required to meet the certification requirements of the Texas Department of Health at the EMT-Paramedic level. Lectures include clinical orientation, patient documentation, an overview of field internship objectives and competencies, and a summative evaluation. Additionally, the student is required to complete a minimum of one hundred twenty-eight hours of field internship with an approved Mobile Intensive Care Unit ambulance with an approved preceptor. The student will complete a required number of advanced life support ambulance runs and a

required number of EKG tracings identifications and documentation. (8 clinical hours per week). Prerequisites: EMMT 2114, EMMT 2612. Corequisites: EMMT 2115, EMMT 2613. [CB0000008040]

EMMT 2301

E.M.S. Administration (3 credits)

An in-depth study of the organization and management as related to Emergency Medical Services including budgeting, maintenance of records and reports, and management of an ambulance service. Personnel administration and distribution of equipment and personnel and other related topics, including relations of various government agencies to E.M.S. areas. (3 lecture hours per week). This course is not for transfer toward a bachelor's degree. [CB0000008040]

EMMT 2402

Rescue Techniques (4 credits)

Rescue techniques from simple or light-duty to complex or heavy-duty requirements. Patient packaging, extrication, forcible entry, self-contained breathing apparatus, confined space entry and exit, rope rescue, high angle techniques, environmental and water rescue is covered. Transportation emergencies including aircraft, farming equipment, hazardous materials, construction equipment and multi-passenger vehicles are also presented. Class emphasis is aimed at a hands-on approach. Preplanning techniques, command structure, rescue and disaster communication techniques, rescue resource management and mass/multiple casualty management are also stressed. (3 lecture and 3 laboratory hours per week). [CB0000008040]

EMMT 2612

Emergency Medical Technician-Paramedic I (6 credits)

This course is the continuation of the advanced life support program. Topics presented in this course are from the American Heart Association Advanced Cardiac Life Support (ACLS) and the Department of Transportation (DOT) Emergency Medical Technician-Paramedic National Training Course. Modules cover Pharmacology, Cardiovascular System, Obstetrical/Gynecological Emergencies and Medical Emergencies. (5 lecture and 2 laboratory hours per week). Prerequisites: EMMT 1615 or EMT-Intermediate Certification. Corequisite: EMMT 2114. [CB0000008040]

EMMT 2613

Emergency Medical Technician-Paramedic II (6 credits)

This course is the final section of the advanced life support program. Topics for this course are presented from the American Heart Association Advanced Cardiac Life Support (ACLS), and the Department of Transportation (DOT) Emergency Medical Technician-Paramedic National Training Course. Modules cover central nervous system, soft tissue injuries, musculoskeletal injuries, pediatric/neonatal transport, management of the

emotionally disturbed, telemetry and communications. (5 lecture and 2 laboratory hours per week). Prerequisite: EMMT 2612. Corequisites: EMMT 2115, EMMT 2216. [CB0000008040]

English

Bill Crider, Department Chairperson

Mike Bass, Gilbert Benton, James Creel, Dickie Fox, Bea Hugetz, Margaret Montgomery, Rick Faulkner

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.

ENGL0309

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).

[CB3201085335]

ENGL0310

Developmental Writing II (3 credits)

Extensive practice in writing paragraphs and short papers follows a review of grammar. (3 lecture hours and 1 laboratory hour per week).

[CB3201085335]

ENGL1301

Composition and Rhetoric 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. Corequisite: READ 0310. [CB2304015135]

ENGL1302

Composition and Rhetoric 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. [CB2304015135]

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 2326. Under appropriate circumstances, ENGL 2311 may be allowed as one of the two required sophomore courses.

ENGL2307
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 1303. [CB2305015135]

ENGL2311
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). Prerequisite: ENGL 1302 or ENGL 1301 with grade of "C" or above. [CB2311015135]

ENGL2322
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. [CB2308015135]

ENGL2323
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. [CB2308015135]

ENGL2326
American Literature
(3 credits)

This course examines our national literary heritage dating from colonial times to the present. Collateral readings and reports are required. (3 lecture hours per week). Prerequisite: ENGL 1302. [CB230701535]

ENGL2332
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. [CB2303015235]

ENGL2333
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. [CB2303015235]

English for Speakers of Other Languages

ESOL0300
Reading and Vocabulary for Non-Native Speakers
(3 credits)

Develop reading fluency and vocabulary in speakers of languages other than English and prepares them to function in an English speaking society. (3 lecture hours per week). [CB3201085635]

ESOL0306
Oral Communication
(3 credits)

Develop listening and speaking skills, preparing students to function in an English speaking society. (3 lecture hours per week). [CB3201085535]

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 a placement examination to determine at which level to begin French.

FREN1411
Elementary French I
(4 credits)

This course provides the fundamental skills in listening, speaking, reading, and writing French. It includes basic vocabulary, grammatical structures, and an introduction to French culture. (3 lecture and 2 laboratory hours per week). [CB1609015131]

FREN1412
Elementary French II
(4 credits)

This course provides the fundamental skills in listening, speaking, reading, and writing French. It includes basic vocabulary, grammatical structures, and further study of French culture. (3 lecture and 2 laboratory hours per week). Prerequisite: FREN 1411 or an appropriate placement test. [CB1609015131]

FREN2311
Intermediate French
(3 credits)

This course offers the opportunity to develop listening, speaking, reading, and writing skills in French through conversation, vocabulary acquisition, reading, composition, and culture. It includes a grammar review and further study of the French culture. (3 lecture and 1 laboratory hours per week). Prerequisite: FREN 1412 or an appropriate placement test. [CB1609015231]

FREN2312
Intermediate French II
(3 credits)

This course offers the opportunity to develop listening, speaking, reading, and writing skills in French through conversation, vocabulary acquisition, reading, composition, and culture. It includes a grammar review and further study of the French culture. (3 lecture and 1 laboratory hours per week). Prerequisite: FREN 2311 or an appropriate placement test. [CB1609015231]

Geography

John Duke, Department Chairperson

GEOG1301
Principles of 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). Corequisites: READ 0310 and ENGL 0310. [CB4507015142]

GEOG1303
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). Corequisites: ENGL 0310 and READ 0310. [CB4507015342]

Geology

Dick Graef, Department Chairperson
Dora Devery

GEOL1301
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). [CB4007035139]

GEOL1303
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. [CB4007035139]

GEOL1401
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. [CB4007035139]

GEOL1403
General Geology I
(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. [CB4006015139]

GEOL1404
General Geology II
(4 credits)

This course presents a survey of the evolution of the earth and life through geologic time. The course includes such topics as earthquakes and the earth's interior, mountain building, drifting continents, the Ice Ages, the solar system, the history of life, and the geological aspects of the environment and its effect on the future of mankind. (3 lecture and 3 laboratory hours per week). Prerequisite: GEOL 1403. [CB400601539]

GEOL1405
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 laboratory hours per week). Prerequisite: GEOL 1401 or GEOL 1403. [CB0301025339]

German

Amalia D. Parra
 Department Chairperson

NOTE: All foreign Language classes aim to integrate language acquisition with culture, cultural comparisons, connections to other disciplines, and participation in other language communities. 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.

GERM1411
Elementary German I
(4 credits)

This course provides the fundamental skills in listening, speaking, reading, and writing German. It includes basic vocabulary, grammatical structures, and an introduction to German culture. (3 lecture and 2 laboratory hours per week). [CB1605015131]

GERM1412
Elementary German II
(4 credits)

This course provides the fundamental skills in listening, speaking, reading, and writing German. It includes basic vocabulary, grammatical structures, and further study of German culture. (3 lecture and 2 laboratory hours per week). Prerequisite: GERM 1411 or an appropriate placement test. [CB1605015131]

GERM2311
Intermediate German I
(3 credits)

This course offers the opportunity to develop listening, speaking, reading, and writing skills in German through conversation, vocabulary acquisition, reading, composition, and culture. It includes a grammar review and further study of the German culture. (3 lecture and 1 laboratory hours per week). Prerequisites: GERM 1412, or an appropriate placement test. [CB1605015231]

GERM2312
Intermediate German II
(3 credits)

This course offers the opportunity to develop listening, speaking, reading, and writing skills in German through conversation, vocabulary acquisition, reading, composition, and culture. It includes a grammar review and further study of the German culture. (3 lecture and 1 laboratory hours per week). Prerequisite: GERM 2311 or an appropriate placement test. [CB1605015231]

Government

Johanna Hume, Department Chairperson
Tim Reynolds, Gregory Roof

GOVT2301
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. [CB4510025142]

GOVT2302
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. [CB4510025142]

History

John Duke, Department Chairperson
Tom Bryan, Johanna Hume, Darryl Stevens

HIST1301
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. [CB4508025142]

HIST1302
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. [CB4508025142]

***HIST2301**
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). Corequisites: READ 0310 and ENGL 0310. [CB4508025242]

HIST2311 {2321}
Western Civilization to 1660
(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 statebuilding in the early modern period; and the Scientific Revolution. (3 lecture hours per week). Corequisites: READ 0310 and ENGL 0310. [CB4508015442]

HIST2312 {2322}

Western Civilization Since 1660 (3 credits)

A continuation of HIST 2311, this course will trace the historical roots of contemporary western societies from early modern Europe to the present. Topics examined include: mercantilism, capitalism, and the rise of the middle class; the Enlightenment and the French Revolution; Napoleon and the development of modern nationalism; the Industrial Revolution; Marx, Darwin, and Nietzsche; World War I and the Russian Revolution; the rise of fascism and World War II; the Cold War and the global society; the European community. (3 lecture hours per week). Corequisites: READ 0310 and ENGL 0310. [CB4508015442]

HIST2341

Selected Topics in U.S. History (3 credits)

This course offers an in-depth treatment of specific areas of United States history (i.e., ethnohistory, minority studies, foreign policy, military and social history) and may be repeated for credit as topics vary. The course is an elective and will not satisfy degree requirements in United States history. (3 lecture hours per week). Corequisites: READ 0310 and ENGL 0310. [CB4508015642]

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

Horticulture (Ornamental)

*Steve Wheeler, Department Chairperson
Dwight Rhodes*

HORT1401

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). [CB0000005026]

Humanities

Amalia D. Parra, Department Chairperson

HUMA1301

Introduction to Humanities I (3 credits)

This course is an interdisciplinary, multi-media 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). Corequisites: READ 0310 and ENGL 0310. [CB2401035142]

HUMA1302

Introduction to Humanities II (3 credits)

This course is an interdisciplinary, multimedia 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). Corequisites: READ 0310 and ENGL 0310. [CB2401035142]

Journalism

Bill Crider, Department Chairperson

JOUR1120

Journalism Activities (1 credit)

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

Legal Assistant

Karen Barnett, Department Chairperson

LGLA1301

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). Corequisites: READ 0309 and ENGL 0310. [CB0000005828]

LGLA1311

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). Corequisites: READ 0309 and ENGL 0310. [CB0000005828]

LGLA1345

Civil Litigation (3 credits)

This course presents fundamental concepts and procedures of civil litigation with emphasis on the paralegal's role. Topics include pretrial, trial, and post trial phases of litigation. (3 lecture hours per week). Corequisites: READ 0309 and ENGL 0310. [CB0000005828]

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). Corequisites: READ 0309 and ENGL 0310. [CB0000005828]

LGLA1355

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). Corequisites: READ 0309 and ENGL 0310. [CB0000005828]

LGLA1380, LGLA 2381

Cooperative Education - Paralegal/Legal Assistant (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 work experience. This course may be repeated if topics and learning outcomes vary. (1 lecture hour and 20 laboratory hours per week). Corequisites: READ 0309 and ENGL 0310. [CB0000005828]

LGLA2303

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). Corequisites: READ 0309 and ENGL 0310. [CB0000005828]

LGLA2307

Law Office Management (3 credits)

This course presents the fundamentals of law office management and organization including basic principles and structure of management, administrative and substantive systems in the law office, and law practice technology. (3 lecture hours per week). Corequisites: READ 0309 and ENGL 0310. [CB0000005828]

LGLA 2309
Real Property
(3 credits)

This course presents fundamental concepts of real property law with emphasis on the paralegal's role. Topics include the nature of real property, rights and duties of ownership, land use, voluntary and involuntary conveyances, and the recording of and searching for real estate documents. (3 lecture hours per week). Corequisites: READ 0309 and ENGL 0310. [CB0000005828]

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. [CB0000005828])

Management Development

Rochelle R. Brunson, Department Chairperson

BMGT1301
Supervision
(3 credits)

This course consists of a study of the role of the supervisor. Managerial functions as applied to leadership, counseling, motivation, and human skill are examined. The student will explain the role, characteristics, and skills of a supervisor and the principles of planning, leading, controlling, staffing and organizing at the supervisory level. The student will identify and discuss the human skills necessary for supervision. (3 lecture hours per week).

BMGT1303
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).

BMGT1313
Principles of Purchasing
(3 credits)

The purchasing process as it relates to such topics as inventory control, prices determination, vendor selection, negotiation techniques, and ethical issues. The student will describe the purchasing function as it relates to other departments within the company and identify the basic concepts used in purchasing decisions. (3 lecture hours per week).

BMGT1341
Strategic Management
(3 credits)

Strategic management process involving analysis of how organizations develop and implement a strategy for achieving organizational objectives in a changing environment. The student will explain the processes involved in management strategy development and develop a strategic management plan for an organization. (3 lecture hours per week).

BMGT1382
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. (1 lecture and 20 laboratory hours per week).

BMGT1391
Special Topics in Business Administration and Management, General
(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 industry trends. (3 lecture hours per week).

BMGT2303
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).

BMGT2331
Management of Change
(3 credits)

Knowledge, skills, and tools that enable a leader/organization to facilitate change in a proactive participative style. The student will explain the roles of change agent and champion in the process of change within the organization; show the progression of change from introduction to completion, examining barriers to successful

implementation; and demonstrate ability to analyze internal and external environments as well as stakeholder issues in showing need for change. (3 lecture hours per week).

BMGT2382
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. (1 lecture and 20 laboratory hours per week).

BMGT2383
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. (1 lecture and 20 laboratory hours per week).

BUSG1309
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).

HRPO1311
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).

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).

HRPO2301**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).

HRPO2307**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).

IBUS2341**International Comparative Management
(3 credits)**

This course covers a study of cross-cultural comparisons of management and communications processes. Emphasis on cultural geographic distinctions and antecedents that affect individual, group, and organizational behavior. Topics include sociocultural demographic, economic, technological, and political-legal environment of cluster countries and their relationship to organizational communication and decision making. (3 lecture hours per week).

Mathematics

*Gerald Skidmore, Department Chairperson
Chris Benton, James Boler, Jennifer Hopkins,
Tammi Lansford, Bette Nelson.*

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 for students whose scores on placement tests fall below established cutoff levels.

MATH0309**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, and geometry. 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).
[CB3201045137]

MATH0310**Developmental Mathematics - Algebra
(3 credits)**

This course includes a study of signed numbers, solving linear equations and inequalities, applications, polynomial operations, factoring polynomials, and rational expression operations and equations. The purpose of MATH 0310 is to prepare the student for intermediate algebra. Enrollment in this course is based upon the placement test math score or a self-perceived need to develop the skills covered. (3 lecture hours and 1 lab hour per week).
[CB3201045137]

MATH0312**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 the students for college algebra. Enrollment in this course is based upon the placement test math score or a self-perceived need to develop the skills covered. (3 lecture hours per week). [CB3201045237]

MATH1314**College Algebra
(3 credits)**

This course includes a review of the fundamentals 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 and conic sections, exponential and logarithmic functions, systems of equations and inequalities, matrices, sequences, and series. Graphing calculators (TI-83 or comparable models) are required. Students enrolling in this course should have met 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).
[CB2701015437]

MATH1316**Plane Trigonometry
(3 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 or comparable models) are required. (3 lecture hours per week). Prerequisite: MATH 1314 or departmental approval. [CB2701015337]

MATH1324**Finite Mathematics
(3 credits)**

This course is designed for the business, economics, management, and finance students. The student is introduced to a systematic approach to solutions of problems in linear programming and to methods of solving applied problems in business and economics. 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 and statistics. (3 lecture hours per week). Prerequisite: MATH 1314.
[CB2703015237]

MATH1325**Business Calculus
(3 credits)**

This course includes a study of derivatives, applications 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.
[CB2703015237]

MATH1332**College Mathematics for Liberal Arts
(3 credits)**

This course is designed for liberal arts, humanities and human/social sciences. It is not intended for mathematics, science, engineering, or business majors. The course emphasizes an appreciation of the art, history, beauty, and application of mathematics. Topics include sets, logic, number theory, measurement, geometric concepts, and an introduction to probability and statistics. Prerequisite: MATH0312 or departmental approval. [CB2701015137]

MATH1335**College Mathematics
(3 credits)**

Topics of this course include equations and inequalities, number theory, prime numbers, exponents, sets, number systems, functions, relations, and equivalence. (3 lecture hours per week). Prerequisite: MATH 0312 or department approval. [CB2701015137]

MATH1336**Modern Topics in Mathematics
(3 credits)**

This course covers the following topics and concepts: sets, relations and functions, numeration systems, finite mathematical systems, geometry, measurement, probability, and statistics. (3 lecture hours per week). Prerequisite: MATH 1335. [CB2701015137]

MATH1342**Statistics
(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. [CB2705015137]

MATH1348
Analytic Geometry
(3 credits)

This course details the solution of geometric problems through applied algebra by the graphical representation of points, lines, and curves and the transformation of coordinates, polar coordinates, transcendental curves, vectors, parametrics, and space formulas, with special emphasis on rapid curve sketching. Students enrolling in this course should have previously taken two years of high school algebra and a course in plane trigonometry or passed MATH 1314 and MATH 1316. (3 lecture hours per week). Prerequisite: MATH 1316. [CB2701015537]

MATH2318
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. [CB2701016137]

MATH2320
Differential Equations
(3 credits)

The course includes the following topics: equations of the first order, singular solutions, linear equations with coefficient, and miscellaneous methods of solving equations of high order than the first, with geometric and physical applications. (3 lecture hours per week). Prerequisite: MATH 2414. [CB2703015137]

MATH2413
Differential and Integral Calculus I
(4 credits)

Topics included in this course are limits, the derivative, applications of the derivative, the Chain rule, integration, applications of the integral, and integration by substitution. This course meets the needs of mathematics, engineering, and science students. Students enrolling in this course should have previously taken two years of high school algebra, a course in plan trigonometry, and a course in analytic geometry, or passed MATH 1314, MATH 1316, and MATH 1348. (4 lecture hours per week). Prerequisites: MATH 1316 or consent of the instructor. [CB2701015937]

MATH2414
Differential and Integral Calculus II
(4 credits)

This course is a continuation of MATH 2413.

Topics covered include integration and differentiation of logarithmic and exponential functions, techniques of integration, and infinite sequences and series. (4 lecture hours per week). Prerequisites: MATH 2413 or consent of the instructor. [CB2701015937]

MATH2415
Differential and Integral 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 consent of the instructor. [CB2701015937]

Mental Health

G. E. Carrier, Department Chairperson

MENH1305
Introduction to Human Services
(3 credits)

Subject matter and concepts to human services and substance abuse counseling are addressed. Topics of discussion include delivery models, clients' rights, treatment populations, medications, special populations, dual disorders, counselor ethics, cultural diversity, sexually transmitted diseases and human immune deficiency, stress, counselor boundaries, counselor burnout and an examination of why people enter the helping professions are discussed. (3 lecture hours per week). [CB0000008029]

MENH1307
Studies in Aging
(3 credits)

An overview of the problems faced by aging persons; planning and organizing programs for the aging, an examination of income, health, housing, and support service programs. (3 lecture hours per week). [CB0000008029]

MENH1310
Drug Use and Abuse
(3 credits)

Study of the history, schedules, classification and use of psychoactive drugs in today's society. The pharmacological, psychological, and physiological impacts on the body are addressed. The sociological effects on the community and society will also be explored. (3 lecture hours per week). [CB0000008029]

MENH1315
Interpersonal Communication
(3 credits)

This course includes exercises and theory to improve communication. Various communication models and extensive video and audio taping are utilized to improve one-to-one and small group communication. (3 lecture hours per week). [CB0000008029]

MENH1320
Counseling Methods
(3 credits)

Introduction of counseling theory and methodology, including Reality Therapy, Gestalt Therapy, Behavior Modification, Transactional Analysis, Psychoanalytic Theory, Family Therapy, Group Therapy, and others. (3 lecture hours per week). [CB0000008029]

MENH 1325
Principles of Interviewing
(3 credits)

Counseling interviewing technique topics, such as attending skills, decisional counseling, facilitating counseling development, cultural sensitivity, listening, assertiveness are discussed. (3 lecture hours per week). [CB0000008029]

MENH1326
Recreation Therapy
(3 credits)

A study of the recreation services meeting the needs of special populations. (3 lecture hours per week). [CB0000008029]

MENH1331
Cooperative Education I
(3 credits)

A supervised internship in a human service or substance abuse treatment agency. The experience will be primarily student observations and recordings of events in an assigned agency, such as treatment, meetings, and counseling sessions. Students will be expected to participate in treatment of clients as directed by agency and instructors. Student must have an approved work station and approval of the department chairperson. (1 lecture and 20 laboratory hours per week). [CB0000008029]

MENH1332
Cooperative Education II
(3 credits)

A continuation of MENH 1331 with more emphasis on an active participation in treatment programs, i.e., carrying a small case load and working with team leader or counseling in groups. The student must have an approved workstation and approval of the department chairperson. (1 lecture and 20 laboratory hours per week). Prerequisite: MENH 1331. [CB0000008029]

MENH2300
Client Assessment and Management
(3 credits)

Review of assessment and screening instruments used in substance abuse counseling. Client charting, record keeping, and their functions as they relate to treatment planning. Diagnostic and statistical Manual IV criteria for diagnosis is introduced. Treatment plans with goals and measurable outcomes are discussed as they relate to the client's assessment. Dual diagnosis, management of aggressive behavior and crisis intervention is also addressed. (3 lecture hours per week). [CB0000008029]

MENH2310**Chemical Abuse Treatment
(3 credits)**

An exploration of chemical abuse treatment models, including HMO's and Managed Health Care, the core functions of substance abuse counselors, oral and written case presentations, counselor ethics, client education and relapse prevention models. Juvenile offenders, therapeutic communities, intermediate sanctions, special populations and cultural diversity are included. (3 lecture hours per week). [CB0000008029]

MENH2312**Children of Alcoholics
(3 credits)**

An exploration of the impact an alcoholic or chemical abuser has on the life of the family is thoroughly discussed. Particularly how this impact can impair psycho-social development and how selective behavior patterns are carried into adulthood. (3 lecture hours per week). [CB0000008029]

MENH2313**Laws and Standards Affecting Mental Health
(3 credits)**

Discussion topics include professional and legal issues as they impact health care professionals, including substance abuse counselors. Topics of liability, client rights, client confidentiality, record keeping, professional codes of conduct and counselor ethics are addressed. (3 lecture hours per week). [CB0000008029]

MENH2315**Family Systems
(3 credits)**

An exploration (genogram) of dysfunctional family systems (alcohol and drug) is done. Topics of discussion include the roles assumed by family members, their impact on the family, themselves and their addiction, support systems, and coping strategies. (3 lecture hours per week). [CB0000008029]

MENH2320**Behavior Modification
(3 credits)**

The theories and implementation of behavior modification on selected populations is addressed. Substance abuse, mental illness, mental retardation, the elderly, and populations of interest will become subjects for exploration. The use of behavior modification techniques will be discussed. The need for empirical, clearly defined objective measures will be stressed. (3 lecture hours per week). [CB0000008029]

MENH2333**Cooperative Education III
(3 credits)**

A continuation of MENH 1322 with additional training in the implementation of the basic principles of psychiatric/residential care. Outpatient treatment modalities under supervision will be introduced. The student must have an approved work station and approval of

the department chairperson. (1 lecture and 20 laboratory hours per week). Prerequisite: MENH 1332. [CB0000008029]

MENH2334**Special Problems
(3 credits)**

This course is designed for students seeking advanced training by working on special problems unique to mental health, social work or substance abuse treatment. The course requirements will integrate academic subject matter with applied learning opportunities designed to satisfy experience and subject criteria necessary for state licensure. (Licensure requirements are unique and may vary by agency. Students are encouraged to contact their respective licensure boards for requirements.) 3 lecture hours per week. Prerequisite: MENH 2333. [CB0000008029]

MENH2340**Professional Issues in Human Services
(3 credits)**

An exploration on developing a professional identity, including HMO's, self-awareness and commitment to values and ethics is addressed. Licensure requirements, continuing education, and self evaluation are topics of discussion. Students bring issues from co-op/internship course for further exploration. (3 lecture hours per week). [CB0000008029]

Music

*Kevin Moody, Department Chairperson
Jerry Perkins*

GENERAL MUSIC**MUSI1152****Contemporary Church Music
(1 credit)**

This class will survey contemporary materials available and determine the areas of concentration most beneficial to the group. Considerations will include small and large ensembles, solo work, and the preparation and utilization of instrumental/vocal backgrounds for performances. Possibilities exist for radio/TV productions and also for public performances. (4 laboratory hours per week). [CB5009035830]

MUSI1166**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). [CB5009035130]

MUSI1168**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). [CB5009035130]

MUSI1181**Class Piano
(1 credit)**

Class Piano, a course designed for students with little or no previous experience, provides a study of basic techniques, scales, chords, and basic repertoire. (1 lecture and 1 laboratory hours per week). [CB5009075130]

MUSI1182**Class Piano
(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). [CB5009085130]

MUSI1183**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). [CB5009085130]

MUSI1188 [1170]**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). [CB5009035130]

MUSI1192 [1179]**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). [CB5009035130]

MUSI1211**Music Theory
(2 credits)**

This course provides a study of the fundamentals of musicianship, including scales, intervals, diatonic triads, inversions, written and keyboard harmony, and dominant seventh chords and inversions. (3 lecture hours per week). Prerequisite: READ 0310. [CB5009045130]

MUSI1212**Music Theory
(2 credits)**

This course continues the study of scales, intervals, diatonic triads, inversions, written and keyboard harmony, and dominant seventh chords and inversions. (3 lecture hours per week). Prerequisite: READ 0310. [CB5009045130]

MUSI1216**Ear Training and Sight-Singing
(2 credits)**

This required course for music majors is the first part of a four-semester presentation of basic aural, visual, and vocal experiences in dictation and in sight-singing. (3 laboratory hours per week). Corequisite: MUSI 1211. [CB5009045630]

MUSI1217**Ear Training and Sight-Singing
(2 credits)**

This required course for music majors is the second part of a four-semester presentation of basic aural, visual, and vocal experiences in dictation and sight-singing. (3 laboratory hours per week). Corequisite: MUSI 1212. [CB5009045630]

MUSI1263**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). [CB5009036530]

MUSI1301**Introduction to Music
(3 credits)**

This course familiarizes the student with the meaning of musical notation through the study of scales, chords, and rhythm. The course meets the needs of elementary education majors and other students who wish to gain a working knowledge of music. It is beneficial, but not required, for the student to also enroll in Class Piano. (3 lecture hours per week). Corequisite: READ 0310. [CB5009045530]

MUSI1306**Music Appreciation
(3 credits)**

This general survey course provides the student with a foundation for the enjoyment and understanding of music. The course presents a study of representative composers and their works through recorded music. (3 lecture hours per week). Corequisites: READ 0310 and ENGL 0310. [CB5009025130]

MUSI1308**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. [CB5009025230]

MUSI1309**Survey of Music Literature II
(3 credits)**

This course continues the 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. [CB5009025230]

MUSI1310**History of Rock/Jazz
(3 credits)**

This course consists of discussion and listening experiences reflecting the development of jazz music and its impact on American culture. The course traces the music from its African roots through ragtime, blues, the big-band swing era, be-bop, cool jazz, and free jazz. (3 lecture hours per week). Corequisite: READ 0310. [CB5009025330]

MUSI1386**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). [CB5009045330]

MUSI2181**Class Piano
(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). [CB5009075130]

MUSI2182**Class Piano
(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). [CB5009075130]

MUSI2211**Music Theory
(2 credits)**

This course continues the study begun in MUSI 1311 and MUSI 1312 with advanced aural and written study and with emphasis on chromatic harmony, harmonic analysis, and twentieth-century techniques. (3 lecture hours per week). Prerequisite: MUSI 1212. [CB5009045230]

MUSI2212**Music Theory
(2 credits)**

This course continues the study began in MUSI 1311, MUSI 1312, and MUSI 2312 with advanced aural and written study and with emphasis on chromatic harmony, harmonic analysis, and twentieth-century techniques. (3 lecture hours per week). Prerequisite: MUSI 2211. [CB5009045230]

MUSI2216**Ear Training and Sight-Singing
(2 credits)**

This required course for music majors is the third part of a four-semester presentation of basic aural, visual, and vocal experiences in dictation and sight-singing. (3 laboratory hours per week). Prerequisite: MUSI 1217. Corequisite: MUSI

2211. [CB5009045730]

MUSI2217**Ear Training and Sight-Singing
(2 credits)**

This required course for music majors is the last part of a four-semester presentation of basic aural, visual, and vocal experiences in dictation and sight-singing. (3 laboratory hours per week). Prerequisite: MUSI 2216. Corequisite: MUSI 2212. [CB5009045730]

ENSEMBLES**MUSI1125, 2125****Stage 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). [CB5009035630]

MUSI1127, 2127**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). [CB5009035530]

MUSI1135, 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). [CB5009035630]

MUSI1141, 2141**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 and makes several concert tours to other cities. In order to obtain credit, members must attend all called rehearsals and public performances. (5 laboratory rehearsal hours per week). [CB5009035730]

MUSI1143, 2143**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). [CB5009035830]

MUSI1154
Chambers Singers
(1 credit)

This organization is limited in membership. Students are selected by auditions from membership of the College choir. (4 laboratory rehearsal hours per week). [CB5009035830]

MUSI1158
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). [CB5009085230]

MUSI1159/2159
Musical Theatre
(1 credit)

This course can be repeated for credit. This course stresses the study and performance of works selected from the music theatre repertoire. (1 lecture and 4 laboratory hours per week). [CB5009036130]

APPLIED MUSIC
All applied music courses are under
[CB5009035430]

MUAP1231, 1232
Applied Music - Wood-wind
(2 credits each)

These courses provide one hour of individual instruction per week in bassoon, clarinet, flute, oboe, and saxophone. (1 lecture and 4 laboratory practice hours per week).

MUAP1241, 1242
Applied Music - Brass
(2 credits each)

These courses provide one hour of individual instruction per week in trumpet, trombone, French horn, and tuba. (1 lecture and 4 laboratory practice hours per week).

MUAP1257, 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).

MUAP1261, 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).

MUAP1271, 1272
Applied Music - Piano
(2 credits each)

These courses provide one hour of individual

instruction a week. (1 lecture and 4 laboratory practice hours per week).

MUAP1281, 1282
Applied Music - Voice
(2 credits each)

These courses provide one hour of individual instruction per week. (1 lecture and 4 laboratory practice hours per week).

MUAP2231, 2232
Applied Music - Wood-wind
(2 credits each)

These courses provide one hour of individual instruction per week in bassoon, clarinet, flute, oboe, and saxophone. The student must have the approval of the department chairperson. (1 lecture and 4 laboratory practice hours per week).

MUAP2241, 2242
Applied Music - Brass
(2 credits each)

These courses provide one hour of individual instruction per week in trumpet, trombone, French horn, and tuba. The student must have the approval of the department chairperson. (1 lecture and 4 laboratory practice hours per week).

MUAP2257, 2258

Applied Music - Percussion
These courses provide one hour of individual instruction a week in the use of percussion instruments. The student must have the approval of the department chair-person. (1 lecture and 4 laboratory practice hours per week).

MUAP2261, 2262
Applied Music - Guitar
(2 credits each)

These courses provide one hour of individual instruction a week in guitar. The student must have the approval of the department chair-person. (1 lecture and 4 laboratory practice hours per week).

MUAP2271, 2272
Applied Music - Piano
(2 credits each)

These courses provide one hour of individual instruction a week. The student must have the approval of the department chair-person. (1 lecture and 4 laboratory practice hours per week).

MUAP2281, 2282
Applied Music - Voice
(2 credits each)

These courses provide one hour of individual instruction per week. The student must have the approval of the department chair-person. (1 lecture and 4 laboratory practice hours per week).

Nursing Associate Degree

Betty Oliver, Director
Minerva Clamppfer, Sally Durand, Cindy Foster,
Sharon Hightower, Susan Priest,
Christy Scales, Tess Pape, Miriam Villageliu

All ADN courses under [CB000008021]

NURS1300
Principles and Practice of Pharmacology
(3 credits)

Principles and Practice of Pharmacology is a course designed to assist the nursing student in the establishment of a firm groundwork in the principles of drug therapy. Broad categories of pharmacologic agents and their interrelationship with various body systems will be discussed. Emphasis will be placed on the role and responsibilities of the nurse in drug therapy. (3 lecture hours per week).

NURS1310
Psychiatric Nursing
(3 credits)

This course focuses on individuals whose behavioral patterns are considered to be deviations from the normal. These individuals are identified through their admission to psychiatric in-patient facility. The role of the nurse in treatment modalities is stressed. Clinical experiences provide opportunities for students to interact therapeutically with patients both individually and in groups. (2 lecture and 6 clinical hours per week). Prerequisite: NURS 1750 or NURS 1400.

NURS1400
Nursing Transition
(4 credits)

This transition course is designed for the licensed vocational nurse (LVN) who wishes to have an option to challenge examinations. The course is designed to assess and evaluate the LVN's theory base in nursing content and nursing skills. Emphasis is placed on role transition as well as the incorporation of selected content from both Introduction to Nursing (NURS 1800) and Medical/Surgical Nursing I (NURS1750). (2 lecture and 6 laboratory/clinical hours per week). Prerequisites: BIOL 2402, PSYC 2314, PSYC 2308, ENGL 1301.

NURS1750
Medical-Surgical Nursing I
(7 credits)

This course familiarizes the student with the more common medical and surgical conditions for which patients are hospitalized. It emphasizes the biological, psychological, and social components of each patient's situation. The student utilizes the nursing process in the management of the patient care. (4 lecture and 16 clinical hours per week). Prerequisite: NURS 1800, PSYC 2301. Corequisites: BIOL 2402, PSYC 2314.

NURS1800
Introduction to Nursing
(8 credits)

This is the basic course in the nursing curriculum. It provides the foundation upon which the other nursing courses are built. The student is introduced to the more common deviations from wellness so that he/she develops an increased awareness of the health-illness continuum. The foundation for curriculum threads is introduced in this course and integrated throughout subsequent

nursing courses. Laboratory and clinical experiences are provided in the nursing skills laboratory and with adult patients in health care facilities. (4 lecture and 13 laboratory hours per week). Corequisites: BIOL 2401, PSYC 2301.

**NURS2200
Professional Development
(2 credits)**

This course is designed to offer the student of nursing a better understanding of the nursing profession as it relates to the health care delivery system. The content includes historical, contemporary, and future issues in nursing; legal responsibilities; professional behavior and ethics; professional organizations; opportunities and employment responsibilities in nursing; and concepts of management. (1 lecture and 2 laboratory hours per week). Prerequisite: NURS 1310.

**NURS2401
Maternal Nursing
(4 credits)**

This course approaches the family at the establishment phase and includes the antepartal phase, parturition, and the post-partal phase of childbearing. It also includes the care of the newborn. Meeting the physiological and psychological needs of the family is stressed with emphasis on the normal aspects of childbearing. Deviations from normal are included with the focus on the assessment and nursing management. Experiences are provided in clinical agencies for caring for the mother and the newborn. (2 lecture and 7 laboratory hours per week). Prerequisite: NURS 1310.

**NURS2411
Child Health Nursing
(4 credits)**

This course includes the care of the child from birth through adolescence. Acute and chronic illnesses of children are studied with emphasis on nursing care. Clinical experiences provide the student with opportunities to care for and observe children in both the hospital and well-child settings. (2 lecture and 7 clinical hours per week). Prerequisite: NURS 1310.

**NURS2700
Medical - Surgical Nursing II
(7 credits)**

This course is a continuation of Medical - Surgical Nursing I. It provides a more in-depth level of learning and includes nursing practice in more complex nursing settings. Opportunities are provided for the assumption of increased responsibility in the management of nursing care. (4 lecture and 16 clinical hours per week). Prerequisite: NURS 1310. Corequisite: ENGL 1302.

Nursing - Vocational

*Judy Siefert, Department Chairperson
Glo Ann Cole*

All VOCN courses under [CB000007821]

**VOCN1200
Issues in Nursing
(2 credits)**

This course addresses current issues in nursing, ethics, licensure, employment, and personal and professional growth. (2 lecture hours per week).

**VOCN1210
Math for Drug Administration
(2 credits)**

Calculation of drug dosages using common formulas and mathematical functions are presented. A review of basic mathematical skills, the principles and techniques of drug administration, drug forms and routes are included. Clinical application of skills is addressed in laboratory simulations, team and/or total patient care assignments. (2 lecture hours per week).

**VOCN1401
Anatomy and Physiology
(4 credits)**

This is a basic course in body structure and function and serves as a background for nursing care principles and concepts. Independent and interdependent functioning of the body systems are included, i.e. the cell, body organization, the musculo-skeletal system, and cardiovascular, respiratory, gastrointestinal, genito-urinary, nervous, and endocrine systems. (4 lecture hours per week; taught 12-week Summer session only).

**VOCN1410
Pharmacology
(4 credits)**

This course introduces the study of drug therapy. Major drug classifications and their actions are categorically studied. (4 lecture hours per week).

**VOCN1421
Mental Health and Mental Illness
(4 credits)**

This course defines the basic concepts of mental health, coping mechanisms, stress management, and personality development theories. Therapeutic communication skills, common psychiatric clinical entities, and aspects of various treatment modalities, pharmacology, and nursing care planning are studied. (4 lecture hours per week).

**VOCN1910
Fundamentals of Vocational Nursing
(9 credits)**

This course introduces vocational nursing concepts and basic nursing care skills. Topics include ethical/legal aspects of health care delivery, basic microbiology, nutrition, the nursing process, principles and procedures in patient care, and introduction in drug administration, and gerontology. The sequence of study proceeds from simple to complex and in the order of the human basic needs hierarchy. The goals and objectives of this course are to initiate cognitive, psychomotor, and affective behavior

consistent with the role of the vocational nurse. Clinical experiences include simulated laboratory settings and long-terms and/or acute care facilities. (8 lecture and 5 laboratory hours per week).

**VOCN1902
Maternal - Child Nursing
(10 credits)**

This course is a study of normal obstetrics, neonatology, and pediatrics. A family centered approach using the nursing process in nursing care planning, treatment, drug therapy, nutrition, and growth and development will be studied. Common complications and health problems of the prenatal, labor and delivery, postpartum, neonatal, and child to adolescent growth cycles will be considered. Clinical experiences will include prenatal public health settings, perinatal hospitalized settings, the hospitalized neonate and pediatric patient, plus child care, clinic, or seminar/workshop participation. (6 lecture and 24 clinical laboratory hours per week). Prerequisites: VOCN 1401, VOCN 1910.

**VOCN1912
Advanced Medical Surgical Nursing
(10 credits)**

This course utilizes the nursing process in nursing care planning for health deviations of the adult and the gerian. Preventative, therapeutic, and rehabilitative aspects of care are included for continuity of care. Physical, psychological, spiritual/social, and learning needs of patients are studied on a systems approach. A variety of settings provide clinical experience, i.e. acute care, long term, rehabilitative, ancillary and community/home health services. Students participate in seminars/workshops and tours of area health care agencies. Medication administration will include team medication and/or TPC assignments. (6 lecture and 24 clinical laboratory hours per week). Prerequisites: VOCN 1401, VOCN 1910.

Nutrition

*Betty Oliver, Director
Sally Durand*

**FDNS 1305
Nutrition
(3 credits)**

A study of nutrients including functions, food sources, digestion, absorption and metabolism with application to normal and preventive nutrition needs across the lifespan. Includes nutrient intake analysis, energy expenditure evaluation, and diet planning. (3 lecture hours per week). Prerequisite: BIOL 2401. Corequisite: READ 0309. [CB000008021]

Office Administration

*Crystal Brittingham, Department Chairperson
Catherine Finley*

ACNT1303**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).

ACNT1304**Introduction to Accounting II
(3 credits)**

A study of accounting for merchandising, notes payable, notes receivable, valuation of receivables and equipment and valuation of inventories in a manual and computerized environment. Prerequisite: ACNT 1303. (3 lecture and 1 laboratory hours per week).

ACNT1311**Introduction to Computerized Accounting
(3 credits)**

Introduction to utilizing the computer in maintaining accounting records, making management decisions, and processing common business applications with primary emphasis on a general ledger software. Prerequisite: ACNT 1303. (3 lecture and 1 laboratory hour per week). [CB0000005825]

OFAD1301**Keyboarding
(3 credits)**

This course is structured for individualized learning. The course emphasizes building touch keyboarding skills, speed, and basic production with the use of word processing software. (3 lecture and 1 laboratory hours per week). [CB0000005825]

OFAD1331**Business Communications I
(3 credits)**

This course develops language skills necessary for a career in an office occupation. Corequisite: Reading competency. (3 lecture hours per week). [CB0000005825]

OFAD1332**Business Communications II
(3 credits)**

This course includes the use of proofreading techniques, the use of computer application in written communication, and the use of effective group interaction to aid in the understanding of cultural diversity in the office environment. Written documents will consist of memos, letters, reports, manuals, and other source documents that fit the pattern of industrial and institutional communications. Prerequisite: OFAD 1331. (3 lecture hours per week). [CB0000005825]

OFAD 1373**Legal Terminology
(3 credits)**

The course will provide a fundamental

knowledge of the basic principles of American jurisprudence, along with an opportunity to perform "hands-on" tasks that will be required in the legal office setting. (3 lecture hours per week). [CB0000005825]

OFAD 1377 [OFAD 1471]**Medical Terminology
(3 credits)**

A study of roots, suffixes, and prefixes of medical terminology to develop an 11,000 word medical vocabulary for the medical office professional. (3 lecture hours per week). [CB0000005825]

OFAD 1378**Medical Insurance
(3 credits)**

This course is designed primarily to teach billing, from a physician's office. Prerequisite: OFAD 1377 and 1472. (3 lecture hours per week). [CB0000005825]

OFAD1401**Records Management
(4 credits)**

Basic course providing instruction in the alphabetic, subject, numeric, and geographic methods of filing. This course also includes an introduction to microcomputer data base programs and an electronic filing system. (3 lecture and 3 laboratory hours per week). [CB0000005825]

OFAD1423**Document Processing I
(4 credits)**

The course familiarizes students with the computer keyboard and builds skills essential to obtain employment in an office occupation. The course emphasizes integrating correct keyboarding and word processing techniques used to create letters, tables, memos, and reports. (3 lecture and 3 laboratory hours per week). [CB0000005825]

OFAD1424**Document Processing II
(4 credits)**

The course continues the student's development of keyboarding and word processing skills through the creation of documents requiring higher level word processing features and faster keyboarding input. Prerequisite: 40 words per minute or department chairman approval and basic word processing skills. (3 lecture and 3 laboratory hours per week). [CB0000005825]

OFAD1440**Office Procedures
(4 credits)**

This study of office occupations and office professional's duties includes topics such as handling of mail, telephone techniques, decision making, time management, listening skills, planning meetings, prioritizing, and human relations. This course is taught in a team environment. Prerequisite: Basic word processing skills or OFAD 2441 or 2442 and

OFAD 1424 or 40 words per minute. (3 lecture and 2 laboratory hours per week). [CB0000005825]

OFAD1441**Medical Office Procedures
(4 credits)**

The study of the duties of the office professional in a medical office. This course uses MediSoft.. Prerequisite: Computer literate. (3 lecture and 2 laboratory hours per week). [CB0000005825]

OFAD1443**Legal Office Procedures
(4 credits)**

The study of the duties of the office professional in a legal office. Topics discussed include handling of mail, telephone techniques, decision making, time management, listening skills, planning meetings prioritizing, and human relations. This course is taught in a team environment. Prerequisite: Basic word processing skills or OFAD 2441 or 2442 and OFAD 1424 or 40 words per minute. (3 lecture and 2 laboratory hours per week). [CB0000005825]

OFAD1452**Office Technology
(3 credits)**

This course is designed to familiarize students with current office technology, such as the scanner, copier, fax, electronic calculator, computer, transcriber, and electronic filing system. The course includes data entry activities on the microcomputer and applications of basic arithmetic skills to the operation of electronic calculators using ten-key touch. (3 lecture and 2 laboratory hours per week). [CB0000005825]

OFAD1472**Medical Terminology and Coding
(4 credits)**

A study of the organ systems of the human body and introduction into the coding procedures used in the medial field. (3 lecture and 2 laboratory hours per week). Prerequisite: OFAD 1377. [CB0000005825]

OFAD 1473**Medical Transcription
(4 credits)**

This is an introductory course presenting transcription guidelines, medical records, reports, correspondence and business documents. Prerequisites: OFAD 1377, OFAD 1472, OFAD 2424. (3 lecture and 2 laboratory hours per week). [CB0000005825]

OFAD1476**Legal Terminology and Transcription
(4 credits)**

Course objectives are to insure comprehension of meaning, procedures, and applications of legal terminology. Emphasis is placed on providing a learning experience in machine transcription of legal dictation in a simulated legal office, which

includes punctuation of legal correspondence and legal documents. Prerequisite: Basic word processing skills (OFAD 1423) and 40 words per minute. (OFAD 2341). (3 lecture and 2 laboratory hours per week). [CB0000005825]

OFAD2315, 2316
Cooperative Education I and II
(3 credits)

Students work in a qualifying firm 20 hours per week in an office situation where they receive practical training and experience compatible with their career objective. Students will also be required to attend a one-hour lecture on campus with the internship instructor. Students may receive credit from an approved full-time job. (1 lecture and 20 laboratory hours per week). [CB0000005825]

OFAD 2324
Keyboarding II
(3 credits)

This course is designed to build speed and accuracy. The course utilized software to analyze mistrokes and customizes corrective drills. (3 lecture and 1 laboratory hours per week). Prerequisite: 30 wpm keyboarding skill. [CB0000005825]

OFAD2410
Selected Topics
(4 credits)

The course content will be selected topics in office technologies. Prerequisite: Approval of department chairperson. (3 lecture and 3 laboratory hours per week). [CB0000005825]

OFAD2424
Document Processing III
(4 credits)

This advanced keyboarding and word processing course places emphasis on production output in an office atmosphere with additional training given in written and oral communication. Prerequisite: OFAD 1324, OFAD 1331, OFAD 2441 and OFAD 2442. (3 lecture and 3 laboratory hours per week). [CB0000005825]

OFAD2441
Word Processing I
(4 credits)

This course will provide students with beginning through advanced features of a current word processing software program used by industry. Prerequisite: 40 words per minute or approval of department chairman. (3 lecture and 3 laboratory hours per week). [CB0000005825]

OFAD2442
Word Processing II
(4 credits)

This course will provide students with beginning through advanced features of a current word processing software program used by industry. Prerequisite: 40 words per minute or approval of the department chairman. (3 lecture and 3 laboratory hours per week). [CB0000005825]

OFAD2443
Word Processing III
(4 credits)

This course will introduce students to practical applications of spreadsheet, data base, and graphics. (3 lecture and 3 laboratory hours per week). Prerequisite: OFAD 1452. [CB0000005825]

OFAD2444
Word Processing IV
(4 credits)

This course will provide students with beginning features of current word processing software programs used by industry. Prerequisite: 40 words per minute or approval of the department chairman. (3 lecture and 3 laboratory hours per week). [CB0000005825]

OFAD2445
Word Processing V
(4 credits)

This course will provide students with advanced features of current software programs used by industry. Prerequisite: 40 words per minute or approval of the department chairman and OFAD 2444. (3 lecture and 3 laboratory hours per week). [CB0000005825]

Orientation

Sponsored by the Counseling Center

Instructors: JoAn Anderson, Gwendolyn Burgess, Eileen Cross, Kennon Henry, Irene Montoya, Diana Stiles, Pat Street

ORIE0100
College Adjustment
(1 credit)

This course is designed to equip students with many of the basic skills necessary for a successful academic career. Students are given an opportunity for self-assessment regarding strengths, limitations, skills, and interests. New strategies for study and approaches to self-management are offered as content of this course. There are special sections for students with disabilities, international students, and JTPA students. (Developmental credit only.) [CB3201015325]

Philosophy

Johanna Hume, Department Chairperson

PHIL1301
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. Corequisite: ENGL 0310, READ 0310. [CB3801015135]

PHIL2303
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. (3 lecture hours per week). [CB3801015135]

Physics

Dick Graef, Department Chairperson

PHYS1300
Essentials of Science
(3 credits)

This course is designed for elementary education majors. Topics include the nature of the earth as revealed by geology, astronomy, meteorology, and other related biological and physical sciences. (3 lecture hours per week). [CB4099999139]

PHYS1401
General Physics I
(4 credits)

This introductory course continues the study of mechanics, heat, electricity, magnetism, light, and nuclear physics. (2 lecture and 3 laboratory hours per week). Prerequisite: MATH 0310, READ 0310. [CB4008015339]

PHYS1402
General 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. [CB4008015339]

PHYS2425
Mechanics and Heat
(4 credits)

Topics covered in this course include vectors and vector products, equilibrium, moments of force, motion, Newton's laws, and heat. The course meets the needs of science and engineering students. (3 lecture and 3 laboratory hours per week). Prerequisite: READ 0310. Corequisite: MATH 2413. [CB4008015439]

PHYS2426
Electricity and Magnetism
(4 credits)

Designed for science and engineering students, this course provides instruction in electricity and magnetism. (3 lecture and 3 laboratory hours per week). Prerequisite: PHYS 2425. [CB4008015439]

PHYS2427
Wave-Motion, Sound, Light
(4 credits)

This course for students in science, engineering, and other related fields covers such topics as the nature and propagation of light, reflection interference, diffraction, lens, polarization,

natural radioactivity, and nuclear energy. (3 lecture and 3 laboratory hours per week). Prerequisite: READ 0310. Corequisite: MATH 2413. [CB4008015439]

Process Technology

Mahrez Rezqui, Department Chairperson

The Process Technology program offers students core courses related to process operations that will prepare them for entry-level employment as process technicians in the refining and petrochemical industry. Technical knowledge and skills will be gained in areas such as operating equipment, instrumentation systems, process systems, process troubleshooting, and computer applications. Please see the curriculum for semesters when courses are offered.

CTEC 1401

Applied Petrochemical Technology (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, and sensible, latent heat. (3 lecture hours, 2 lab hours per week)

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)

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)

PTAC 2410

Process Technology I (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)

PTAC 1352

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 of firing equipment, separation equipment; troubleshooting. (2 lecture hours, 2 lab hours per week)

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. (2 lecture hours, 2 lab hours per week)

PTAC 2420

Process Technology II (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) Prerequisites: PTAC 1302, PTAC 2410.

PTAC 2434

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, hydro cracking, desulfurization, hydroforming, alkylation, polymerization, treating, olefin production, and many other common processes. (3 lecture hours, 2 lab hours per week)

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 1352.

PTAC 2438

Process Technology III (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 1302, PTAC 2410, PTAC 2420.

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)

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)

Psychology

Nancey Lobb, Department Chairperson
Jean Raniseski

PSYC0309

Study Skills (3 credits)

This course is a study of techniques such as time management, listening and note-taking, text

marking, library and research skills, preparing for examinations, and utilizing learning resources. (3 lecture hours per week). [CB3201015235]

PSYC2301

General Psychology (3 credits)

This course gives the student a broad view of the field and acquaints him/her with the fundamental laws of behavior that have to do with daily conduct in various life situations. The course covers such topics as the study of human behavior relating experimental data to practical problems, the measurement of ability, sensory and perceptive processes, organic basis of behavior, heredity, maturation, learning and thinking, motivation, emotion, personality, and social factors in behavior. (3 lecture hours per week). Corequisites: READ 0310 and ENGL 0310. [CB4201015140]

PSYC2308

Child Growth and Development (3 credits)

This course includes a study of the physical and psychological development of the child from conception to adolescence, with emphasis on factors which influence growth and development. The course helps the individual develop skills in observing and interpreting children's behavior. (3 lecture hours per week). Corequisites: READ 0310 and ENGL 0310. [CB4207015140]

PSYC2314

Life-Span Growth & Development (3 credits)

This course provides a study of development from conception to death with emphasis on factors which influence growth and development. Consideration will be given to social, emotional, cognitive and physical growth and development at each period of the life-span. Corequisites: READ 0310 and ENGL 0310. [CB4207015140]

PSYC2317

Statistical Methods in Psychology (3 credits)

This course explores such topics as measures of central tendency and variability, statistical inference, and correlation and regression. (3 lecture hours per week). Prerequisites: PSYC 2301, MATH 0310. [CB4299995240]

PSYC2340

Current Issues in Psychology (3 credits)

This course is an in-depth study of contemporary issues in psychology. Topics i.e., sexuality, gender roles, addictions, gerontology, and death and dying will vary each semester. Corequisites: READ 0310 and ENGL 0310. [CB4201015540]

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/or 0310 may be required by state law for students whose scores on the TASP or an approved alternate test fall below the established cutoff levels.

READ0309

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 TASP reading skills is included. (3 lecture and 1 laboratory hour per week). [CB3201085235]

READ0310

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 TASP reading skills, emphasizing the ability to comprehend college textbooks. (3 lecture and 1 laboratory hour per week). [CB3201085235]

READ0312

Developmental Reading III (3 credits)

READ 0312 is a review course for students who have passed READ 0310, but who have not passed TASP. 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 TASP skills. (3 lecture hours per week). Prerequisite: READ 0310. [CB3201085235]

READ1320

College Reading (3 credits)

This transferable course for the college-level reader focuses on improving comprehension in textbook materials. The expansion of comprehension skills into critical thinking will be emphasized. READ 1320 also includes material on reading speed and vocabulary development. (3 lecture hours per week). [CB3801015735]

Real Estate

REAL1301

Principles of Real Estate (3 credits)

This beginning course in real estate fundamentals and principles explores the development of real estate in Texas and introduces the study of ownership appraisal, law, practices, financing, land and location values, transfers, trends, regulations, and economic effects. (3 lecture hours per week). [CB5215015125]

Respiratory Care

Diane Flatland, Department Chairperson
Perry Bush
Wayne Hite, MD, Medical Director

All RESC courses are under [CB000008025]

RESC1120

Introduction to Practicum (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. Also included is certification as a BCLS provider, body mechanics, and assessment of vital signs. (8 laboratory hours per week). Corequisites: RESC 1400, 1411.

RESC1201

Respiratory Care Sciences (2 credits)

Provides an introduction to basic sciences and mathematics needed in respiratory care. Topics covered include scientific measurement, chemistry, basic math, physics, computer applications, and cleaning and sterilization techniques. (2 lecture hours per week). Prerequisite: READ 0309.

RESC1212

Practicum I (2 credits)

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). Prerequisites: RESC 1400, 1411, 1120. Corequisites: RESC 1312, RESC 1412.

RESC1300

Respiratory Physiology (3 credits)

This course is designed to introduce the student to the physiology of the cardiovascular and pulmonary systems. The student also becomes acquainted with the terminology used in respiratory physiology. (3 lecture hours per week). Prerequisite: READ 0309.

RESC1315

Pulmonary Diagnostics (3 credits)

This course includes theories and techniques involved in pulmonary function testing. Pulmonary exercises testing, metabolic studies, oximetry, transcutaneous monitoring and capnography will also be discussed. (2 lecture and 2 laboratory hours per week). Prerequisite: RESC 1400.

RESC1312

Respiratory Pathophysiology (3 credits)

Medical problems are discussed from an etiological, symptomatic, diagnostic, therapeutic,

and prognostic point of view. Topics include obstructive and restrictive diseases, neuromuscular and CNS diseases, cardiac failure, etc. (3 lecture hours per week). Prerequisite: RESC 1300. Corequisites: RESC 1212, RESC 1412.

RESC1320
Pharmacology
(3 credits)

This course is an introduction to the study of drugs: their origin, nature, properties, classification, and effects upon the living organism. Drugs which affect the respiratory system are emphasized. (3 lecture hours per week). Prerequisite: RESC 1300.

RESC1400
Introduction to Respiratory Care
(4 credits)

This introductory course is designed to acquaint students with the responsibilities of the respiratory care practitioner as a member of the health care team. The course includes instruction and practice in basic procedures pertaining to medical gas administration, humidity and aerosol therapy, and nursing skills. Application of these procedures are performed in the laboratory and clinical area under supervision. (3 lecture and 2 laboratory hours per week). Corequisite: RESC 1120, 1411.

RESC1411
Respiratory Care Procedures I
(4 credits)

This in-depth study of basic respiratory care concepts, theories, and techniques emphasizes IPPB therapy, airway management, suctioning, chest physical therapy, and incentive spirometry. Applications of these procedures are performed in the laboratory and clinical area under supervision. (3 lecture and 2 laboratory hours per week). Corequisites: RESC 1120, 1400. Prerequisite: RESC 1300.

RESC1412
Respiratory Care Procedures II
(4 credits)

Designed to introduce the student to the design, function, and operation of volume-cycled ventilators, this course emphasizes assisted and controlled ventilation and the use of special procedures (IMV, CPAP, etc.). Blood gas interpretation, including arterial blood gas sampling techniques and analysis, is also discussed. (3 lecture and 2 laboratory hours per week). Prerequisites: RESC 1300, RESC 1411. Corequisite: RESC 1212.

RESC2112
Mechanical Ventilator Laboratory
(1 credit)

This course is 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 ventilators. (2 laboratory hours per week). (12-

week summer session - 3 laboratory hours per week). Prerequisite: RESC 1412.

RESC2201
Seminar in Respiratory Care
(2 credits)

This course will include presentation of patient case studies in a panel discussion format, demonstration and evaluation of new ventilators on the market today, home care equipment troubleshooting, and patient assessment in the home. Student must have completed all previous Respiratory Care courses or have permission of program director. (2 lecture hours per week).

RESC2205
Clinical Management and Education
(2 credits)

This introduction to the managerial aspects of the Respiratory Care Department includes budgeting, scheduling, and staffing. It also covers in-service education, behavioral objectives, and teaching and testing strategies. (1 lecture and 3 laboratory hours per week; summer session - 1 lecture and 4 laboratory hours per week).

RESC2212
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. (15 laboratory hours per week; 12-week summer session - 20 laboratory hours per week). Prerequisites: RESC 1412, RESC 1212.

RESC2223
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. Includes AHA advanced cardiac life support program (\$150 fee). The student will also rotate through specialty areas pertaining to cardiopulmonary care. (18 laboratory hours per week). Prerequisites: RESC 2212, 2112.

RESC2224
Practicum IV
(2 credits)

This in-depth exposure to respiratory care and ventilator management emphasizes neonatal and pediatric therapy. Case studies and follow-ups are presented. Also, a continuation of specialty areas pertaining to cardiopulmonary care will be included. (20 laboratory hours per week). Prerequisites: RESC 1412, 2223.

RESC2309
Neonatal and Pediatric Respiratory 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). Prerequisite: RESC 2310, RESC 2320. Corequisite: RESC 2224.

RESC2310
Advanced Pathophysiology
(3 credits)

This course includes an in-depth study of various diseases and disorders related to the cardiopulmonary system. Advanced Diagnostic techniques including chest radiography and electrocardiography are also discussed. (3 lecture hours per week). Prerequisites: RESC 1312, 1315. Corequisites: RESC 2313, RESC 2320.

RESC2320
Advanced Intensive Care Procedures
(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). Prerequisites: RESC 1312, RESC 1412, 1315. Corequisite: RESC 2223.

Retail Management & Marketing

Rochelle R. Brunson, Department Chairperson

BMGT1302
Principles of Retailing
(3 credits)

This course was developed as an introduction to the retailing environment and its relationship to consumer demographics, trends, and traditional/nontraditional retailing markets. The employment of retailing techniques and the factors that influence modern retailing will be examined. The student will identify factors that influence price setting, site location, store design, legislation, competition, the merchandise mix, and the economy. (3 lecture hours per week).

BMGT1304
Visual Merchandising
(3 credits)

This course provides a background in visual presentation skills including design elements and principles, appropriate store fixtures, and the psychological motives that compromise the various buying behaviors. (3 lecture hours per week).

BMGT1333
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).

BMGT1335

Introduction to Merchandising (3 credits)

This course is an introduction to the merchandising industry with emphasis on the understanding of consumer demand and the interrelationship of all levels of the retail industry. Traces the production and marketing of merchandising from the manufacturing process to the ultimate consumer. The student will explain the fundamental concept to consumer demand and describe the interrelationships of all levels of the retail industry. (3 lecture hours per week).

BMGT1347

Retail Buying (3 credits)

This course is a detailed study of the organizational structure of retail buying, the internal and external sources of buying information, the fundamentals of effective purchasing, and the buyer's role in planning. The student will demonstrate effective negotiation skills including terms of sale, delivery, discounts, and allowances, and apply the retail mathematical concepts including average inventory, stock turnover, stock-to-sales ratios, six-month buying plan, and profit margins. (3 lecture hours per week).

BMGT1380

Cooperative Education - General Retailing Operations 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. (1 lecture and 20 laboratory hours per week)

BMGT2380

Cooperative Education - General Retailing Operations 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. (1 lecture and 20 laboratory hours per week).

BMGT2381

Cooperative Education - General Retailing Operations 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.

IBUS1301

Principles of Imports-Exports I (3 credits)

This course consists of a study of export management processes and procedures. Topics include governmental controls, licensing of products, documentation, commercial invoices, and traffic procedures. The student will discuss documentation, logistics, and transportation of export management; prepare appropriate export documents and responses to request for quotation; and apply export processes and procedures to public, customer and employee relationships, and to such functional areas as finance and accounting. (3 lecture hours per week).

IBUS1354

International Marketing Management (3 credits)

This course is an analysis of international marketing strategies using market trends, costs, forecasting, pricing, sourcing, and distribution factors. Development of international export/import marketing plan. (3 lecture hours per week).

MRKG1311

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).

Sociology

Nancy Lobb, Department Chairperson
Gerald Crane, Jean Raniseski

SOCI1301

Principles of Sociology (3 credits)

This course presents a scientific examination of the organization of human social life, the unique forms and social order of group life, and the products of group living. The course places special emphasis on social interaction patterns and the processes and institutions developed by man to facilitate his progress. (3 lecture hours per week). Corequisites: READ 0310 and ENGL 0310. [CB451105142]

SOCI1306

Social Problems (3 credits)

This course includes the 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 of special groups in society: population, poverty, social minorities, mass society, delinquency, crime, drugs, sexual deviance, and disorganization of family, education, and religion. (3 lecture hours per week). Corequisites: READ 0310 and ENGL 0310. [CB4511015242]

SOCI2301

Marriage and Family Relationships (3 credits)

A contemporary study of the freedom and growth potential of the individual in marriage and family life, this course explores the many parameters of the marital and parental relationships, and it places emphasis on raising current questions with comprehensive examination of the values and goals of the individual as well as the institution of the family. (3 lecture hours per week). Corequisites: READ 0310 and ENGL 0310. [CB4511015242]

SOCI2319 {HUMA2319}

American Minorities (3 credits)

This course is an introduction to culture and to the multi-cultural and multi-ethnic diversity residing in the United States, with emphasis on Italian Americans, Jewish Americans, Native Americans, Black Americans, Hispanics, and Asians. (3 lecture hours per week). Corequisites: READ 0310 and ENGL 0310. [CB4511015342]

Spanish

Amalia D. Parra, Department Chairperson

Note: All foreign language classes aim to integrate language acquisition with culture, cultural comparisons, connections to other disciplines, and participation in other language communities.

The basics of conversation are taught in SPAN1300 and SPAN1310. These courses benefit the students who need additional preparation for beginning college-level Spanish courses and those desiring to improve their conversational skills.

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

SPAN1300

**Conversational Spanish 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). [CB1609055431]

SPAN1310

**Conversational Spanish II
(3 credits)**

A continuation of Conversational Spanish I, this course provides further 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). Prerequisite: SPAN1300 [CB1609055431]

SPAN 1411

**Elementary Spanish I
(3 credits)**

This course provides the fundamental skills in listening, speaking, reading, and writing Spanish. It includes basic vocabulary, grammatical structures, and an introduction to Hispanic culture. (3 lecture and 2 laboratory hours per week).

SPAN 1412

**Elementary Spanish II
(4 credits)**

This course provides the fundamental skills in listening, speaking, reading, and writing Spanish. It includes basic vocabulary, grammatical structures, and further study of Hispanic culture. (3 lecture and 2 laboratory hours per week). Prerequisite: SPAN 1411 or an appropriate placement test.

SPAN 2311

**Intermediate Spanish I
(3 credits)**

This course offers the opportunity to develop listening, speaking, reading, and writing skills in Spanish through conversation, vocabulary acquisition, reading, composition and culture. It includes a grammar review and further study of the Hispanic culture. (3 lecture and 1 hour per week). Prerequisite: SPAN 1412 or an appropriate placement test.

SPAN2312

**Intermediate Spanish II
(3 credits)**

This course offers the opportunity to develop listening, speaking, reading, and writing skills in

Spanish through conversation, vocabulary acquisition, reading, composition, and culture. It includes a grammar review and further study of the Hispanic culture. (3 lecture and 1 laboratory hours per week). Prerequisite: SPAN 1412. [CB1609055231]

SPAN2321

**Culture of Spain
(3 credits)**

This course is conducted in Spanish. Representative readings in literature, history, art, society, and politics from the Iberian culture provide an introduction to the legacy of Spain in the Western world. (3 lecture hours per week). Prerequisite: SPAN 2311 or an appropriate placement test. [CB1609055331]

Speech

*C. Jay Burton, Department Chairperson
Earnest Burnett, Bill Waggoner*

SPCH1311

**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. [CB2310015135]

SPCH1315

**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. [CB2310015335]

SPCH1318

**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. [CB2310015435]

SPCH1321

**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. [CB2310015235]

SPCH2341

**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. [CB2310015735]

Sports and Human Performance

*(formerly called Physical Education)
Don Childs, Department
Chairperson/Athletic Director*

Bryan Alexander, Gary Coffman, Bonny Johnson

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.

PHED1100, PHED1110

**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 of class instruction and participation per week). [CB3601085128]

PHED1102, PHED1112

**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 of class instruction and participation each week). [CB3601085128]

PHED1103, PHED1113

**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 of class instruction and participation each week). [CB3601085128]

PHED1104, PHED1114

**Individual and Dual Sports -Gymnastics
(1 credit)**

This course provides instruction and participation in gymnastics in order to develop the student's fitness, skills, knowledge, and appreciation. (3

laboratory hours of class instruction and participation each week). [CB3601085128]

PHED1106, PHED1116
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 of class instruction and participation each week). [CB3601085128]

PHED1108, PHED1118
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 of class instruction and participation each week). [CB3601085128]

PHED1109, PHED1119
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 of class instruction and participation each week). [CB3601085128]

PHED1120, PHED1121
Volleyball
(1 credit)

This course consists of instruction and participation in both beginning and advanced volleyball. (3 laboratory hours per week). [CB3601085128]

PHED1122, 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 of class instruction and participation per week). [CB3601085128]

PHED1124, PHED1130
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 of class instruction and participation per week). [CB3601085128]

PHED1125
Fundamentals of Movement Ballet
(1 credit)

This course provides instruction and participation in ballet, and it includes a brief study of the history and philosophy of the dance. (3

laboratory hours of class instruction and participation per week). [CB3601085128]

PHED1126, PHED1131
Fundamentals of Movement - Jazz Exercise
(1 credit)

This course provides instruction and participation in jazz exercise, and it includes a brief study of the history and philosophy of the dance. (3 laboratory hours of instruction and participation per week). [CB3601085128]

PHED1127
Fundamentals of Movement Country Line Dance
(1 credit)

This course provides instruction and participation in country line dance, and it includes a brief study of the history and philosophy of the dance. (3 laboratory hours of instruction and participation per week). [CB3601085128]

PHED1128
Fundamentals of Movement Jazz
(1 credit)

This course provides instruction and participation in jazz, and it includes a brief study of the history and philosophy of the dance. (3 laboratory hours per week). [CB3601085128]

PHED1129
Fundamentals of Movement - Tap
(1 credit)

This course provides instruction and participation in tap dancing, and it includes a brief study of the history and philosophy of the dance. (3 laboratory hours of instruction and participation per week). [CB3601085128]

PHED1132, PHED1133
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 of class instruction and participation per week). [CB3601085128]

PHED1134, PHED1136
Aerobic Exercise
(1 credit)

This course consists of a planned program of exercise to provide a condition of fitness and figure improvement through increased cardiovascular activity and large muscle exercise. (3 laboratory hours of class instruction and participation per week). [CB3601085128]

PHED1135, PHED1137
Low Impact Aerobic Exercise
(1 credit)

This course consists of a planned program of low impact exercise to provide a condition of fitness and figure improvement through increased cardio-vascular activity and large muscle exercise. (3 laboratory hours of class instruction

and participation per week). [CB3601085128]

PHED1138, PHED1148
Powerwalking
(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 of class instruction and participation per week). [CB3601085128]

PHED1139, PHED1149
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 of class instruction and participation per week). [CB3601085128]

PHED 1140
Yoga
(1 credit)

This course provides instruction and participation in the concepts and movements of yoga in order to develop the student's fitness skills, knowledge, and appreciation. (3 laboratory hours of class instruction and participation per week). [CB3601085128]

PHED1141, PHED1142
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). [CB3601085128]

PHED1143, PHED1144
Team Sports - Volleyball and Softball.
(1 credit)

This course includes class instruction and participation in volleyball and softball. (3 laboratory hours per week). [CB3601085128]

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 laboratory hours per week). [CB3601085128]

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 of class instruction and participation each week). [CB3601085128]

PHED 1147-1157
Basketball
(1 credit)

This course consists of instruction and participation in both beginning and advanced basketball. (3 laboratory hours per week). [CB3601085128]

PHED1151**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). [CB3601085328]

PHED1152**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). [CB3601085328]

PHED1153, PHED1154**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). [CB3601085128]

ADVANCED SPORTS

[Each course may be repeated once each, for a maximum total of 4 credits for each sport.]

PHED1170, 1171**Advanced Volleyball (1 credit each)**

These courses are for advanced volleyball players. (3 laboratory hours per week). [CB3601085128]

PHED1174, 1175**Advanced Baseball (1 credit each)**

These courses are for advanced baseball players. (3 laboratory hours per week). [CB3601085128]

PHED1178, 1179**Advanced Soccer (1 credit each)**

These courses are for advanced soccer players. (3 laboratory hours per week). [CB3601085128]

PHED1180, 1181**Advanced Fast-Pitch Softball (1 credit each)**

These courses are for advanced fast-pitch softball players. (3 laboratory hours per week). [CB3601085128]

PHED 1182-1183**Advanced Rodeo (1 credit each)**

These courses are for advanced rodeo riders who wish to improve their personal rodeo skills. Enrollment is limited by facilities and availability of stock. (3 laboratory hours per week). [CB3601085128]

THEORY COURSES**PHED1302****Introduction to Sports & Human Performance- (3 credits)**

Designed for professional orientation in sports and human performances, health, and recreation, this course includes a brief history and a study of the philosophy and modern trends of health and human performance, teacher qualification, vocational opportunities, and skill testing. (3 lecture hours per week). [CB3105015228]

PHED1304**Personal and Community Health (3 credits)**

This course presents the essential present-day knowledge of personal and community health. The course stresses physiological and anatomical background, showing the student how to make a sound appraisal of the effects of health practices upon the body. The course also includes discussion of pollution and prevention and control of diseases. (3 lecture hours per week). [CB5103015128]

PHED1306**First Aid (3 credits)**

This course presents the 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. [CB5103015328]

PHED 1308**Officiating Volleyball (3 credits)**

This course teaches the rules of volleyball. It provides opportunities for experience in intramurals, practice games, and tournaments. (3 lecture hours per week). [CB1202045128]

PHED1309**Officiating Football & Basketball (3 credits)**

This course teaches the rules of football and basketball. It provides opportunities for experience in intramurals, practice games, and tournaments. (3 lecture hours per week). [CB1202045128]

PHED1321**Coaching Athletics - Volleyball (3 credits)**

Students learn methods of coaching volleyball through lectures, demonstrations, practice, and reading of present-day literature on the sport. (3 lecture hours per week). [CB3105065128]

PHED1322**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). [CB3105065128]

PHED1336**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). [CB3101015128]

PHED1346**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). [CB5103015228]

Texas Department of Criminal Justice

Alvin Community College has conducted educational programs for the Texas Department of Criminal Justice since 1965. In addition to the Associate in General Liberal Arts (p. 41-42), occupational/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 Science
Horticulture (Ornamental)
Welding

AUTOMOTIVE TECHNOLOGY

Charles Graham, Terry Hanlon

All AUMT courses are under [CB0000006422]

AUMT1305**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).

AUMT1319**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).

AUMT1407
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).

AUMT1416
Suspension and Steering
(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).

AUMT2417
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

CPMT1411
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).

CPMT1443
Microcomputer Architecture
(4 credits)

An intermediate level course in computer characteristics and subsystem operations, timing, control circuits, and internal input/output controls. (3 lecture and 4 laboratory hours per week)

CPMT1445
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).

CPMT1447
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).

CPMT2433
Computer Integration
(4 credits)

An advanced course in integration of hardware, software, and applications. Customization of computer systems for specific applications in engineering, multi-media, or data acquisition. (3 lecture and 4 laboratory hours per week).

CPMT2437
Microcomputer Interfacing
(4 credits)

An interfacing course exploring the concepts and terminology involved in interfacing the internal architecture of the microcomputer with commonly used external devices. (2 lecture and 4 laboratory hours per week).

CPMT2445
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).

COMPUTER SCIENCE

Lew Garrett, Department Chairperson
Thomas Cook, Loretta Hulsey, Elias Sanchez

All CSCI courses are under [CB0000006021]

CSCI1590
Introduction to Computers
(5 credits)

This course is an overview of the basic concepts of computer information processing. The functional characteristics of digital computers and their capabilities and limitations are discussed, and the application of computers in business, industry, and society is explored. (3 lecture and 7 laboratory hours per week).

CSCI1591
Micro-Computer Programming - BASIC
(5 credits)

This course on the fundamental concepts of BASIC programming language as applied to micro-computers includes problem solving, application, graphics, and other programming techniques applicable to micro-computers. (3 lecture and 7 laboratory hours per week).

CSCI1592
Computer Programming (PASCAL)
(5 credits)

This introductory course in structured programming using the PASCAL language emphasizes algorithm design, flowcharting, and syntax of the language. Business applications are used to introduce problem-solving techniques. (3

lecture and 7 laboratory hours per week).

CSCI1593
Introduction to Database Structures
(5 credits)

This introductory course in database processing using the PASCAL language explores algorithms for sorting, searching, joining, and displaying information from a group of related files. Emphasis is placed on database structure, data integrity, and user functionality. (3 lecture and 7 laboratory hours per week).

CSCI1594
Data Base Systems
(5 credits)

In this introduction to data-based management systems, data organization and structure, and data-base design, the student uses a query language for business applications. (3 lecture and 7 laboratory hours per week).

HORTICULTURE
(ORNAMENTAL)

Dwight Rhodes

All HORT courses are under [CB0000005026]

HORT1590
Principles of Horticulture
(5 credits)

This course presents 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, transplanting, and plant maintenance. (3 lecture and 6 laboratory hours per week).

HORT1591
Plant Materials for Landscape Use
(5 credits)

This course provides a study of ornamental trees, shrubs, vines, and ground covers for landscape use, and it emphasizes their identification, characteristics, adaptability, use, and maintenance. Students use basic concepts and practices in preparing landscape plans. (3 lecture and 6 laboratory hours per week).

HORT1592
Plant Propagation
(5 credits)

This course provides the student with theoretical consideration and practical experiences in producing horticultural plants by sexual and asexual methods. It includes laboratory exercises in cutting, layering, division, growing from seeds, budding, and grafting. (3 lecture and 6 laboratory hours per week).

HORT1593
Chemical Control of Weeds, Plants, Diseases, and Pests
(5 credits)

This course covers the identification, cause, and

control of common weeds, plant diseases, and pests, and it includes a study of equipment for their prevention and control. (3 lecture and 6 laboratory hours per week).

HORT1594
Vegetable Crops
(5 credits)

This course is a study of vegetable production, and it includes factors that affect production of important fresh market and processing vegetables in different areas of the United States. (3 lecture and 6 laboratory hours per week).

WELDING

Gary Church

WLDG 1521
Introduction to Welding Fundamentals
(5 credits)

An introduction to the fundamentals of equipment used in oxyacetylene and arc welding, including welding and cutting safety, basic oxyacetylene welding and cutting, basic arc welding processes and basic metallurgy. (3 lecture and 6 laboratory hours per week). [CB0000006245]

WLDG 1528
Introduction to Shielded Metal Arc Welding (SMAW)
(5 credits)

An introduction to shielded metal arc welding process. Emphasis placed on power sources, electrode selection, oxy-fuel cutting, and various joint designs. Instruction provided in SMAW fillet welds in various positions. (3 lecture and 6 laboratory hours per week). [CB0000006245]

WLDG 1535
Introduction to Pipe Welding
(5 credits)

An introduction to welding of pipe using the shielded metal arc welding process, including electrode selection, equipment setup, and safe shop practices. Emphasis on weld positions 1G and 2G using various electrodes. (3 lecture and 6 laboratory hours per week). [CB0000006245]

WLDG 2543
Advanced Shielded Metal Arc Welding (SMAW)
(5 credits)

Advanced topics based on accepted welding codes. Training provided with various electrodes in shielded metal arc welding processes with open V-groove joints in all positions. (3 lecture and 6 laboratory hours per week). [CB0000006245]

WLDG 2553
Advanced Pipe Welding
(5 credits)

Advanced topics involving welding of pipe using the shielded metal arc welding process. Topics include electrode selection, equipment setup, and safe shop practices. Emphasis on weld positions 5G and 6G using various electrodes. (3 lecture and 6 laboratory hours per week). [CB0000006245]

**Courses offered only at the Texas Department of Criminal Justice*

Continuing Education Program

PURPOSE

Alvin Community College, a comprehensive community college, provides life-long educational opportunities through the Department of Continuing Education. The noncredit program offers occupational and vocational training, job readiness skills, professional education, workforce development, senior adult courses and activities, certification programs, as well as basic skills, language improvement classes, and courses for pleasure and recreation.

GENERAL INFORMATION

Noncredit continuing education serves all age groups including senior adults, children, and youth. Information regarding the age appropriateness of specific courses is provided in the course schedule. Noncredit courses are offered daytime and evening. Daytime courses include most senior adult education classes, specialized courses for business and industry, and those designed to train specific target groups. Courses range from three-hour seminars to 300-hour adult vocational training courses.

Tuition and fees for noncredit classes are established by the Alvin Community College Board of Trustee. Noncredit instruction includes lecture, laboratory, field exercises, workshops, seminars, and conferences.

Persons who have program and course ideas should contact the Dean of Continuing Education at (281)388-4904 or (281)388-4952.

CONTINUING EDUCATION & ADULT NONCREDIT COURSE DESCRIPTIONS

Noncredit courses in the following areas are scheduled at various times during the academic year. Interested persons should check the course schedule to determine the particular courses offered. Every course is not offered every semester.

HEALTH & MEDICAL

Massage Therapy, Medication Aide, Emergency Medical Technician (Basic & Intermediate), Nurse Aide, Basic Management for Activity Professionals, Phlebotomy, Physicians Assistant are just a few of the programs included in this non-credit allied health curriculum. Call (281) 388-4904 or (281) 388-4952 for information.

JOB TRAINING

Vocational courses are offered to assist the student in job readiness, attainment and/or upgrading of skills for beginning or changing a career. Also offered are courses for professionals who are required to develop and maintain specific levels of training for continued certification.

Professional training includes licensed professional counselors, teachers and hazardous waste managers. Child Care, Health and Medical, Business and Management, Gerontology, Law Enforcement, Office Occupations, and Workforce Development are a few of the noncredit training areas. The most recent addition to the area of job training is the 300-hour Massage Therapy Program.

SENIOR ADULTS

ACCESS (Alvin Community College Education & Senior Services), for persons 55 years of age and over, offers many courses, activities, and trips, as well as twice-a-month meetings with guest presenters and entertainment. Call 388-4685, the ACCESS Office, for more information.

COMPUTER TRAINING

A partial list of courses includes Introduction to Computers, DOS and Windows, WordPerfect, Excel, Access, Power Point, Quattro Pro, and Computer Job Training. Courses can be customized at the request of business and industry entities, using software appropriate for specific jobs.

PROFESSIONAL & WORKFORCE DEVELOPMENT

Customized courses are tailored to meet the specific educational needs of employees of area companies, petrochemical plants, and various other types of business and industry. Call (281) 388-4904 or (281) 388-4952 for information regarding the development of these courses.

CENTER FOR PROFESSIONAL & WORKFORCE DEVELOPMENT (CPWD)

The CPWD, housed in the Nolan Ryan Center for Continuing Education, expands the College's role in service and training to local business and industry. The CPWD will enhance training partnerships with business and industry, providing opportunities for workers to upgrade skills through ongoing and new programs, both credit and noncredit. It will also provide support for area small businesses through classes, workshops, seminars, and information and resource referrals.

SPECIAL INTEREST

Weight Training, Sign Language, Firearms Training, Conversational Spanish, Yoga and Cooking Classes are a few of the courses offered for the enjoyment of students. Physical fitness and martial arts courses offer training for ages four and up. Call (281) 388-4904 or (281) 388-4952 for a complete schedule of additional courses.

YOUTH

The Summer Youth Enrichment Program offers courses to children ranging from Kindergarten through 8th grade. Included are physical fitness and fun courses, as well as educational skill building, and basic developmental courses.

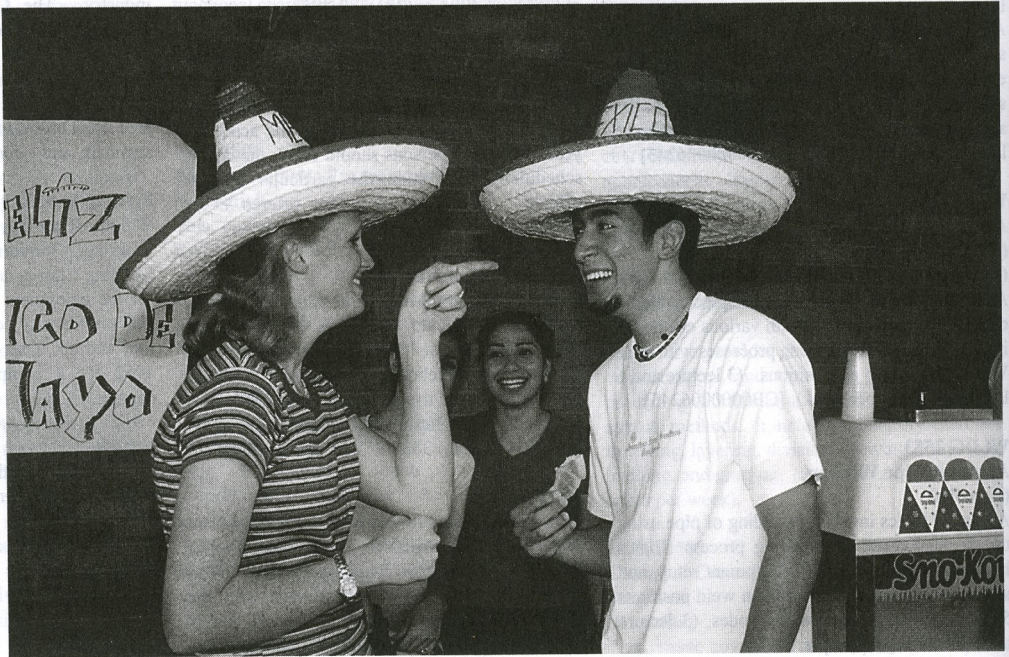
ABE/GED/ESL PROGRAM

Adult Basic Education (ABE) is the fundamental instruction and study of materials and subject matter equivalent of grades 1 through 8.

General Education Development (GED) is the preparation for High School Equivalency Diploma, which may be acquired by passing the GED Exam. Although students may take the GED Exam without GED preparation classes, most students score significantly higher by participation in the individualized instructional program. Students must be 17 years old and officially withdrawn from a public school. Because of new legislation and laws affecting GED testing, interested persons should check with the ACC Counseling Center regarding testing requirements.

English as a Second Language (ESL) offers non-English speaking adults an opportunity to develop an understanding of the spoken language or to improve existing language skills. Classes are offered on several levels of difficulty.

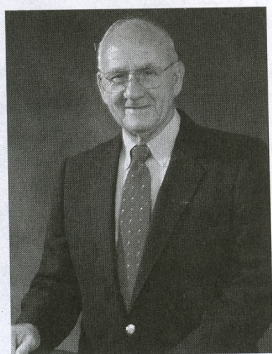
There is no charge for instruction in ABE or ESL programs. The fee for GED materials is \$15. The fee for GED Exam is \$40. Testing arrangements are made through the ACC Counseling Center. The ABE/GED/ESL program is funded through the Texas Education Agency. Interested persons may enroll in either daytime or evening classes. Additional information regarding this program may be acquired by calling (281)388-4830 or (281) 388-4951.





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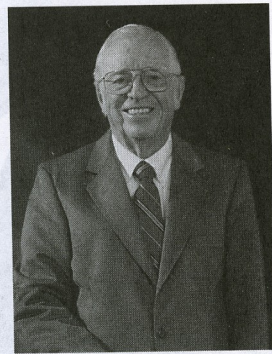
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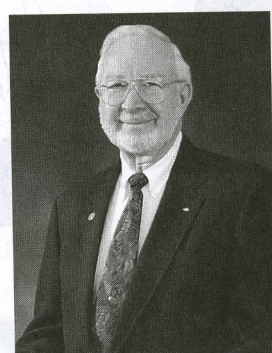
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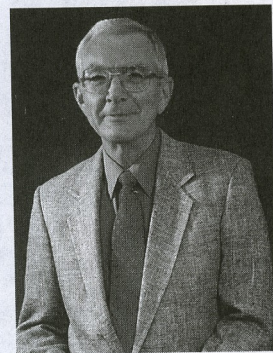
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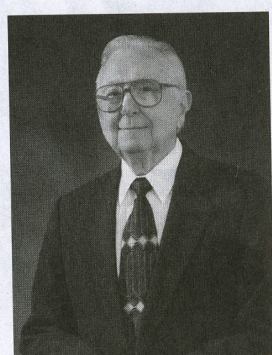
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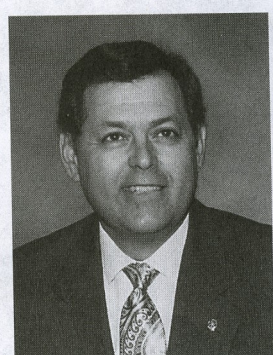
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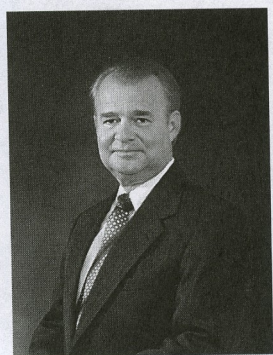
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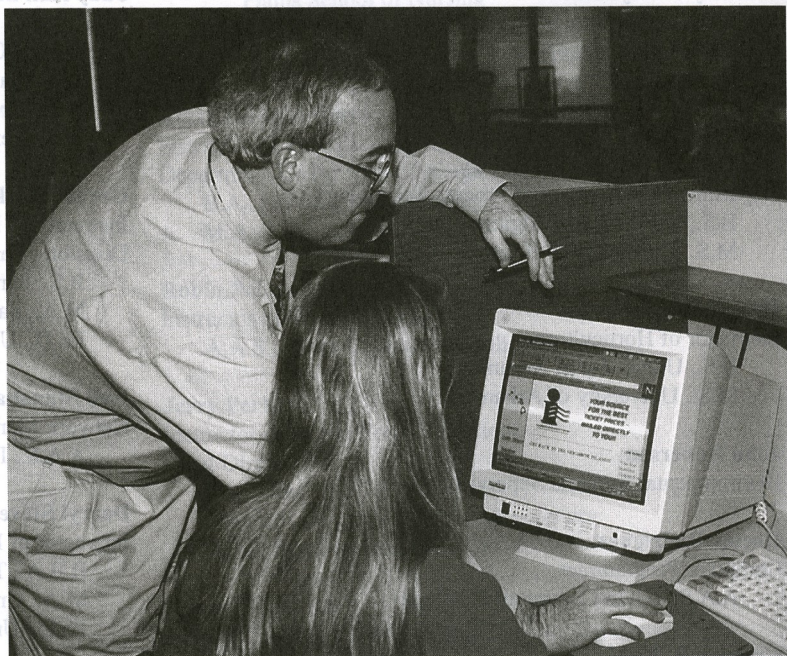
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 Ph.D., Texas A&M University

Lang Windsor

Director of Personnel

B.B.A., Armstrong State College
 M.A., University of Houston-Clear Lake



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How to Reach Alvin Community College Main Campus

Alvin Community College is located 25 miles south of Houston and 30 miles north of Galveston on Hwy. 35 ByPass in Alvin, Texas.

From Houston, use Hwy. 35 south; or take I-45 south to Webster, then west on FM 528 to Hwy. 35 ByPass; or Hwy 288 south to Manvel, then east on Hwy. 6 to Hwy. 35 ByPass.

From Galveston, use Hwy. 6 to reach Hwy. 35 ByPass, from Angleton and points south, use Hwy. 35.

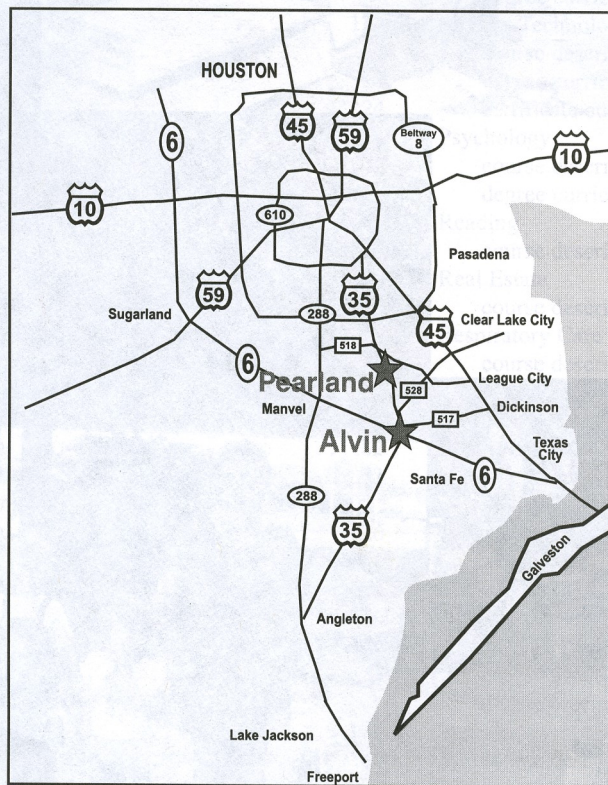
How to Reach Alvin Community College Pearland College Center

Pearland College Center is located at 2319 North Grand Boulevard in Pearland.

From Friendswood: FM 518 West to one block past Galveston Rd., which is N. Grand Blvd. Turn right.

From Hwy 288: FM 518 East to two blocks past the intersection of FM 518 (Broadway) and Hwy. 35. Turn left on N. Grand Blvd.

From Alvin: Hwy 35 North to FM 518 (Broadway) intersection. Turn right. Two blocks to N. Grand Blvd. Turn left.



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