

Student Activities

Break out of the pack and join student activities.

You get the benefits:

- Develop your leadership potential
- Build teamwork and organizational skills
- Expand your resume
- Meet other students and make new friends

Some opportunities include:

- Participating in community events
- Planning special events
- Representing students in student government
- Connecting with students from other colleges and universities
- Relating with faculty and staff through college committees



Career Planning Program

ACC Will Help You Plan Your Future

This program is designed to help students choose a college major and plan their career.

Explore your interests, passions, values, skills and personality using an interactive workbook and two career assessments.

This is what ACC students are saying about the program:

- "I came in here with no idea of what career I wanted and I left with a complete understanding of what career field was best for me."
- "The program was very straight forward and very easy to understand."
- "The counselor was up to date on the recent job trends, which made a big impact on my decision."

To learn more, call 281.756.3531



Office Administration

- Medical Office Professional Degree Program

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

Length: Six-Semester (Two-Year) Program

Purpose: The Associate in Applied Science Degree curriculum in Office Administration offers courses which prepare the student for employment in the medical secretarial field. The program is designed to meet the need for efficient medical secretaries in the medical field.

Program Requirements: The two-year curriculum in office administration provides instruction in areas required for competence as an administrative assistant in a medical office environment. The student will gain at least eight months work experience related to this field. Upon satisfactory completion of the two-year curriculum, the student will be awarded the Associate in Applied Science Degree in Office Administration.

Associate in Applied Science Degree Program

Course Number	Course Title	Lecture Hours	Lab Hours	Course Credits
FIRST YEAR				
First Semester				
ACNT 1303	Introduction to Accounting I	3	1	3
ENGL 1301	Composition and Rhetoric I	3	0	3
POFM 1313	Medical Terminology I	3	0	3
POFM 1317	Medical Administrative Procedures	3	0	3
POFT 1429	Keyboarding and Document Formatting	3	3	4
PHED	Physical Activity	0	3	1
		15	7	17
Second Semester				
POFI 1445	Integrated Software Applications	3	3	4
POFM 2323	Medical Terminology II	3	0	3
POFT 1302	Business Communication I	3	0	3
POFT 2401	Document Formatting and Skillbuilding	3	3	4
PSYC 2314	Life-Span Growth & Development	3	0	3
		15	6	17
SECOND YEAR				
First Semester				
POFM 1333	Pharmacology for Office Personnel	3	0	3
POFM 1353	Medical Coding	3	1	3
POFM 1380	Cooperative Ed-Medical Adm Asst/Secretary	1	20	3
POFT 1419	Records and Information Management I	3	3	4
POFT 1425	Business Math and Machine Applications	3	3	4
		13	27	17
Second Semester				
MATH 1314	College Algebra	3	0	3
POFM 1327	Medical Insurance	3	0	3
*POFM 2380	Cooperative Ed-Medical Adm Asst/Secretary	1	20	3
SPCH 1315	Public Speaking	3	0	3
Elective	Fine Arts/Humanities	3	0	3
		13	20	15
Third Semester				
PHED	Physical Activity	0	3	1
POFM 1431	Medical Transcription I	3	2	4
		3	5	5

*Capstone Course

Total Credits Required for
A.A.S. Medical Office Professional.....71

Office Administration

- Office Assistant Certificate Program

Length: Two-Semester (One-Year) Program

Purpose: The one-year program prepares the student for employment in office occupations.

Program Requirements: The one-year programs for the Office Assistant, the word processor and the Accounting Clerk combine instruction and classroom participation on the areas required for competence in the business office. Upon satisfactory completion of the one-year program, the student will be awarded a one-year certificate.

Course Number	Course Title	Lecture Hours	Lab Hours	Course Credits
First Semester				
ACNT 1303	Introduction to Accounting I	3	1	3
POFT 1302	Business Communications I	3	0	3
POFT 1309	Administrative Office Procedures I	3	0	3
POFT 1419	Records and Information Management I	3	3	4
POFT 1429	Keyboarding and Document Formatting	3	3	4
		15	7	17
Second Semester				
POFI 2401	Word Processing	3	3	4
POFT 1382	Cooperative Ed - Gen Office/Clerical	1	20	3
POFT 1425	Business Math and Machine Application	3	3	4
POFT 2401	Document Formatting and Skillbuilding	3	3	4
		10	29	15
Total Credits Required for Certificate Office Assistant.....				32

Office Administration

- Word Processing Certificate Program

Course Number	Course Title	Lecture Hours	Lab Hours	Course Credits
First Semester				
POFT 1302	Business Communications I	3	0	3
POFT 1309	Administrative Office Procedure I	3	0	3
POFT 1425	Business Math and Machine Application	3	3	4
POFT 1429	Keyboarding and Document Formatting	3	3	4
		12	6	14
Second Semester				
*POFI 1380	Cooperative Ed - Info Processing/Data Entry	1	20	3
POFI 1401	Computer Applications I	3	3	4
POFI 2401	Word Processing	3	3	4
POFT 2401	Document Formatting and Skillbuilding	3	3	4
		10	29	15
Total Credits Required for Certificate Word Processing.....				29

*Capstone Course

Office Administration - Accounting Clerk Certificate Program

Course Number	Course Title	Lecture Hours	Lab Hours	Course Credits
First Semester				
POFT 1425	Business Math and Machine Applications	3	3	4
ACNT 1303	Introduction to Accounting I	3	1	3
POFT 1329	Keyboarding and Document Formatting	3	1	3
POFI 1401	Computer Applications I	3	3	4
		12	8	14
Second Semester				
POFI 1441	Computer Applications II	3	3	4
ACNT 1304	Introduction to Accounting II	3	1	3
ACNT 1311	Introduction to Computerized Accounting	3	1	3
		9	5	10
Third Semester				
*ACNT 1382	Cooperative Ed - Accounting Technician	1	20	3
*Capstone Course				
Total Credits Required for Certificate Accounting Clerk.....				27

Process Technology Degree

(281) 756-3785

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

Length: Four Semester (Two Year) Program

Purpose: The Process Technology associate level program offers students core courses related to Process Operations that will prepare them to become process technicians in the refining and petrochemical industry. Technical knowledge and skills will be gained in areas such as petrochemical equipment, instrumentation systems, process systems, process troubleshooting and computer applications. The associate program will take four semesters to complete. Graduates from the program will be prepared for entry level employment as process operators.

Program Requirements: In addition to the general requirements for admission to ACC, entry into the Process Technology program requires basic proficiency in English and reading.

Associate in Applied Science Degree Program

Course Number	Course Title	Lecture Hours	Lab Hours	Course Credits
FIRST YEAR				
First Semester				
COSC 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
PHED	Physical Activity	0	3	1
MATH 1332 or	College Mathematics for Liberal Arts	3	0	3
MATH 1314	College Algebra	14	10	18
Second Semester				
ENGL 1301	Composition and Rhetoric I	3	0	3
PTAC 1308	Safety, Health & Environment I	3	1	3
PTAC 1352	Process Instrumentation I	2	2	3
PTAC 2410	Process Technology I	3	2	4
SCIT 1414	Applied General Chemistry I	3	3	4
PHED	Physical Activity	0	3	1
		14	11	18

SECOND YEAR

First Semester

BMGT 2303	Problem Solving and Decision Making	3	0	3
PTAC 2314	Quality	2	2	3
PTAC 2420	Process Technology II	3	2	4
PTAC 2436	Process Instrumentation II	3	2	4
SPCH 1318	Interpersonal Communications	3	0	3
		14	6	17

Second Semester

ENGL 2311	Technical Communications	3	0	3
PTAC 2434	Industrial Processes	3	2	4
*PTAC 2438	Process Technology III	3	2	4
PTAC 2446	Process Troubleshooting	3	2	4
Elective	Fine Arts/Humanities	3	0	3
		15	6	18

*Capstone Course

Total Credits Required for
A.A.S. Process Technology Degree.....71

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				
COSC 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	3	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

(281) 756-3658

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

Length: 24 months

Purpose: The Respiratory Care Department offers a two-year program that prepares individuals for an allied health specialty in the clinical care and management of respiratory disorders. They will possess advanced, intensive-care skills to assess, monitor and evaluate adult, pediatric and neonatal patients on mechanical ventilation. Respiratory therapists practice in a variety of settings, including intensive care units, neonatal/pediatric special care areas, general hospital floors, emergency/trauma units, extended care and rehabilitation facilities, and the home care environment. Respiratory Care courses consist of classroom, laboratory and supervised hospital experience. Graduates of the associate degree program may become Registered Respiratory Therapists (RRT) by passing the Entry Level Exam and the Advanced Practitioners Exam. Texas, along with many states, requires that respiratory care practitioners obtain a state license to practice respiratory care. The program is affiliated with several community hospitals including Ben Taub, Texas Children's, Memorial-Hermann, UTMB-Galveston and eleven other clinical affiliates.

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. complete a physical examination which includes a chest x-ray, TB skin test, and immunizations upon acceptance to the program.
 - h. 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.
 - h. Must complete a minimum of 24 semester hours at ACC in order to be considered a graduate.
4. A new class begins each August.

Alternate Enrollment:

1. Alternate enrollment applies to those respiratory care personnel who are licensed and have not completed 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.

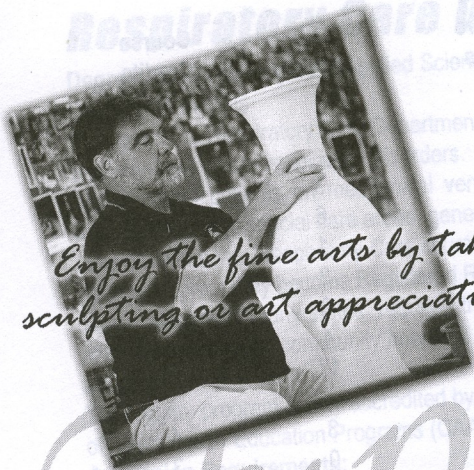
Progression Policies:

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 program, 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				
First Semester				
BIOL 2401	Anatomy & Physiology I	3	3	4
RSPT 1160	Clinical - Respiratory Therapy Technician	0	6	1
RSPT 1207	Cardiopulmonary Anatomy & Physiology	2	1	2
RSPT 1316	Basic Respiratory Care Procedures II	2	3	3
RSPT 1325	Respiratory Care Sciences	3	0	3
RSPT 1329	Respiratory Care Fundamentals I	<u>2</u>	<u>4</u>	<u>3</u>
		12	17	16
Second Semester				
BIOL 2402	Anatomy & Physiology II	3	3	4
ENGL 1301	Composition & Rhetoric I	3	0	3
RSPT 1166	Practicum - Respiratory Therapy Technician I	0	10	1
RSPT 1317	Respiratory Care Pharmacology	3	0	3
RSPT 2210	Cardiopulmonary Diseases I	2	1	2
RSPT 2414	Mechanical Ventilation I	<u>3</u>	<u>2</u>	<u>4</u>
		14	16	17
Third Semester				
RSPT 1267	Practicum - Respiratory Therapy Technician II	0	18	2
RSPT 2305	Pulmonary Diagnostics	2	3	3
RSPT 2314	Mechanical Ventilation II	<u>2</u>	<u>2</u>	<u>3</u>
		4	23	8
SECOND YEAR				
First Semester				
BIOL 2420	Microbiology	3	3	4
PHED	Physical Activity	0	3	1
RSPT 2239	Adv Cardiac Life Support	1	4	2
RSPT 2255	Critical Care Monitoring	2	1	2
RSPT 2266	Practicum - Respiratory Therapy Technician III	0	16	2
RSPT 2310	Cardiopulmonary Disease II	<u>2</u>	<u>2</u>	<u>3</u>
		8	29	14
Second Semester				
Elective	Fine Arts/Humanities	3	0	3
PHED	Physical Activity	0	3	1
PSYC 2301	General Psychology	3	0	3
RSPT 2135	Pediatric Adv Life Support	0	3	1
RSPT 2267	Practicum - Respiratory Therapy Technician IV	0	18	2
RSPT 2353	Neonatal/Pediatric Cardiopulmonary Care	<u>3</u>	<u>0</u>	<u>3</u>
		9	24	13
Third Semester				
RSPT 1141	Respiratory Home Care/Rehabilitation	0	4	1
RSPT 1191	Special Topics in Respiratory Therapy	0	4	1
RSPT 2131	Clinical Simulations for Respiratory Care	0	2	1
RSPT 2166	Practicum - Respiratory Therapy Technician V	<u>0</u>	<u>8</u>	<u>1</u>
		0	18	4

Total Credits Required for
A.A.S. Respiratory Care.....72



Enjoy the fine arts by taking a sculpting or art appreciation class.



The ACC Drama Department performs three plays each year. Here is a scene from *Cinderella*, which received outstanding reviews from the community.

For show times, call 281.756.3609



Alumni Association

Connected for a Lifetime

ACC has an active alumni association.

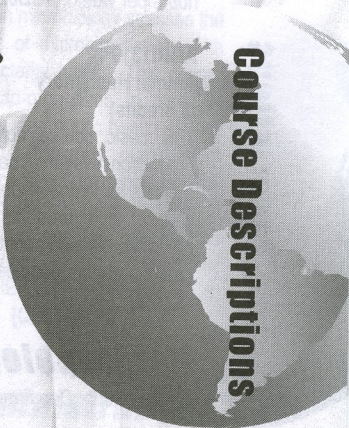
Enjoy the benefits of:

- ~ Networking opportunities
- Staying connected with friends
- ~ Special events

The alumni association provides opportunities to continue serving ACC and to honor outstanding alumni. For more information, call 281.756.3600. Join today!



Course Descriptions



Course Descriptions

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]

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 (SOC1)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). Prerequisite: ARTS 1316 [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 is an expansion of the concepts presented in Painting I with unrestricted subject matter. In addition to scheduled class hours, students should arrange three additional hours per week to paint. (6 laboratory hours per week). Prerequisite: ARTS 2316. [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]

ARTS2341 Art Metals I (3 credits)

This course explores various methods of metal fabrication with an emphasis on jewelry making. The principles of two and three dimensional design are given careful consideration. The history and contemporary trends of art metals are examined. (6 laboratory hours per week) [CB5007135126]

ARTS2342**Art Metals II
(3 credits)**

This course is a continuation of Art Metals I. It explores metal fabrication, jewelry making, history and contemporary trends. Prerequisite: ARTS 2341. (6 laboratory hours per week). [CB5007135126]

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. Prerequisite: ARTS 2366. (6 laboratory hours per week). [CB5007085330]

ARTS2377**Studies in Contemporary Art
(3 credits)**

This course is an in-depth study of current concerns and practices in the visual arts. (1 lecture and 5 laboratory hours per week). Department chairperson approval required. [CB50070352130]

Biology

Steve Wheeler, Department Chairperson
Bill Horine, Dwight Rhodes

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

BUSI1301**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. [CB5201015125]

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 electrochemistry. 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]

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. (2 lecture and 7 laboratory 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]

CDEC1321
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]

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]

CDEC2322**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]

CDEC2324**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]

CDEC2384**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]

CDEC2426**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]

CDEC2428**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]

TECA1303**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]

TECA1311
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]

TECA1318
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]

TECA1354
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., behavioral, 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]

Communications

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

MUSC1327
Audio Engineering I
(3 credits)

An overview of the modern recording studio and related personnel. Topics include basic studio electronics and acoustic principles, waveform analysis, microphone concepts and miking techniques, studio set up and signal flow, recording console theory, signal processing concepts, tape machine principles and operation, and an overview of mixing and editing. (2 lecture and 4 lab hours per week)

MUSC2427
Audio Engineering II
(4 credits)

A continuation of Audio Engineering I with emphasis on implementation of the techniques and theories of the recording process. Topics include applications on microphones, the audio console, the multitrack tape recorder and signal processing devices in recording session environments. (2 lecture and 4 lab hours per week)

MUSC2447
Audio Engineering III
(4 credits)

Presentation of advanced procedures and techniques utilized in recording and manipulating audio information. Topics include advanced computer-based console automation, hard disk based digital audio editing, nonlinear digital multitrack recording and advanced engineering project completions. (2 lecture hours and 4 lab hours per week)

PRCD1311
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]

RTVB1301
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)

RTVB1445**Broadcast Engineering
(4 credits)**

Instruction in the basics of engineering video productions including the basic alignment/adjustment of cameras, test equipment, storage devices, and other studio equipment. Also includes basic system design and construction and digital standards for broadcast, cable, satellite, and network distribution. (3 lecture hours and 3 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

Gerald Pullen, Department Chair
Thomas Magliolo, Richard Melvin

BCIS1405**Business Computer Applications
(4 credits)**

This course contains an overview of computer concepts, computer vocabulary, and microcomputer applications. The course requires the use of a microcomputer (3 lecture and 3 laboratory hours per

week). Prerequisite: READ 0309. [CB5212025227]

BCIS1432**Computer Programming - COBOL
(4 credits)**

Introduction to computer programming using COBOL. Emphasis on the fundamentals of structured design, development, testing, implementation, and documentation. Includes language syntax, data and file structures, input/output devices, and files. (3 lecture and 3 laboratory hours per week). Prerequisite: READ 0309. [CB5212025227]

BCIS2316**Advanced Visual BASIC
(3 credits)**

This course provides advanced instruction in Visual BASIC programming with emphasis on structured design, development, testing, implementation and documentation. Includes language syntax, data and file structure, input/output devices and files. (3 lecture and 2 laboratory hours per week). Prerequisite: BCIS 2416. [CB5212025327]

BCIS2416**Introduction to Visual BASIC Programming
(4 credits)**

Introduction to computer programming using Visual BASIC. Emphasis on the fundamentals of structured design, development, testing, implementation, and documentation. Includes language syntax, data and file structures, input/output devices, and files. (3 lecture and 3 laboratory hours per week). Prerequisite: READ 0309. [CB5212025327]

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. (3 lecture and 3 laboratory hours per week). Prerequisite: READ0309. [CB1101015227]

COSC1418**Pascal Programming
(4 credits)**

Introduction to computer programming using Pascal. Emphasis on the fundamentals of structured design, development, testing, implementation, and documentation. Includes language syntax, data and file structures, input-output devices, and files. (3 lecture and 3 laboratory hours per week). Prerequisite: READ 0309. [CB1102015227]

COSC1420**Computer Programming -- C++ I
(4 credits)**

Emphasis on the fundamentals of structured design with development, testing, implementation, and documentation. Includes language syntax, data, input/output devices, and files. (3 lecture and 3 laboratory hours per week). Prerequisite: READ 0309. [CB1102015227]

COSC1430**Special Topics
(4 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. (3 lecture and 3 laboratory hours per week). Prerequisite: READ 0309. [CB1102015227]

COSC2315**Data Structures
(3 credits)**

This course is an introduction to data structures and algorithm development. Topics include: arrays, records, linked list, stacks, queues, binary trees, sorting, and searching. (3 lecture hours per week). Prerequisite: READ 0309 and ITSE1410. [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). Prerequisite: READ 0309. [CB1102015327]

COSC2420**Computer Programming - C++ II
(4 credits)**

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

ITMC 1401**MS Windows 2000 Network and Operating System
Essentials
(4 credits)**

This course provides an introduction to the Microsoft Windows 2000 operating system and to the networking technologies it supports. It includes skills for administering and setting up security in a Windows 2000 network and skills for examining and troubleshooting TCP/IP and the net. (3 lecture and 3 laboratory hours per week). Prerequisite COSC 1401 and Corequisite ITNW 1425.

ITMC 1441**Implementing MS Windows 2000 Professional and
Server
(4 credits)**

This course provides students with the knowledge and skills necessary to install and configure Windows 2000 Professional on stand-alone computers, and on client computers that are part of a workgroup or domain. In addition, this course provides the skill and knowledge necessary to install and configure Windows 2000 Server to create file and print servers. (3 lecture and 3 laboratory hours per week). Prerequisite ITMC 1401.

ITMC 1442**Implementing MS Windows 2000 Network
Infrastructure
(4 credits)**

This course provides students with the skills necessary for configuring, installing, managing and supporting a network infrastructure that uses the Windows 2000 server family of products. Skills covered include automating IP address assignment using DHCP, implementing name resolution using DNS and WINS, configuring and supporting remote access to a network,

configuring network security using public key infrastructure, integrating the network services in Windows 2000, and deploying Windows 2000 Professional using remote installation services. (3 lecture and 3 laboratory hours per week). Prerequisite ITMC 1441

ITMC 1443

Implementing and Administering MS Windows 2000 Directory Services (4 credits)

This course provides students with the knowledge and skills necessary to install, configure, and administer the Windows 2000 Active Directory service. This course also focuses on implementing Group Policy, and understanding the Group Policy tasks required to centrally manage users and computers. Skills covered also include configuring the DNS server service to support Active Directory, creating and administering user accounts and group resources, delegating and administrative control of Active Directory objects, managing replication of Active Directory, and maintaining and restoring the database of Active Directory. (3 lecture and 3 laboratory hours per week). Prerequisite ITMC 1442

ITMC 2431

Designing Microsoft Windows 2000 Directory Services Infrastructure (4 credits)

This course provides students with the knowledge and skills necessary to design a Microsoft Windows 2000 directory services infrastructure. Strategies are presented to assist the student in identifying the information technology needs of an organization, so the student may then design the Active Directory structure that meets those needs. Specific skills include design of a naming strategy for Active Directory, design of a schema policy, design of Active Directory to support Group Policies, design of an Active Directory domain, design of a multiple domain structure, and design of an Active Directory infrastructure. (3 lecture and 3 laboratory hours per week). Prerequisite ITMC 1443

ITMC 2433

Designing a Secure Microsoft Windows 2000 Network (4 credits)

This course provides students with the knowledge and skills necessary to design a security framework for small, medium and enterprise networks using Microsoft Windows 2000 technologies. Specific skills include providing secure access to local network users, providing secure access to remote users and remote offices, providing secure access between private and public networks, and providing secure access to partners. (3 lecture and 3 laboratory hours per week). Prerequisite ITMC 1443

ITMC 2432

Designing a Microsoft Windows 2000 Networking Service Infrastructure (4 credits)

This course provides students with the knowledge and skills necessary to create a networking services infrastructure design that supports the required

network applications. Topics covered include DHCP, OSPF, RIP, and Internet Group Management Protocol. Skills covered include design of a networking services foundation, designing Internet connectivity solutions, designing extranet connectivity solutions, design and creation of an integrated network services infrastructure, and design of networking services to support applications. (3 lecture and 3 laboratory hours per week). Prerequisite ITMC 1443

ITSE1407

Introduction to C++ Programming (4 credits)

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

ITSE1410

Pascal Programming (4 credits)

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

ITSE1422

Introduction to C Programming (4 credits)

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

ITSE1431

Introduction to Visual BASIC Programming (4 credits)

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

ITSE1491

Special Topics in Computer Programming (4 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. (3 lecture and 3 laboratory hours per week). Prerequisite: READ 0309.

ITSE2387

Internship - Computer Programming (3 credits)

An experience external to the college for an advanced student in a specialized field involving a written agreement between the educational institution and a business or industry. Mentored and supervised by a workplace employee, the student achieves objectives that are developed and documented by the college and that are directly related to specific occupational outcomes. This may be a paid or unpaid experience. This course may be repeated if topics and learning outcomes vary. (20 laboratory hours per week). Prerequisite: READ 0309.

ITSE2413

Web Authoring (4 credits)

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

ITSE2417

JAVA Programming (4 credits)

Introduction to JAVA programming with object-orientation. Emphasis on the fundamental syntax and semantics of JAVA for applications and web applets. (3 lecture and 3 laboratory hours per week). Prerequisite: READ 0309 and (ITSE1422 or ITSE1410 or COSC1418).

ITSE2449

Advanced Visual BASIC Programming (4 credits)

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

Court Reporting

*Bill Cranford, Department Chairperson
Cindy Colvin, Karen Downey, Micki Kincaide, Laura Noulles, Robin McCartney, Jim Preston,
Roland Scott*

CRTR 1302

Law and Legal Terminology (3 credits)

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

CRTR 1308

Realtime Reporting I (3 credits)

Development of skills necessary for writing conflict-free theory and dictation practice using computer-aided technology and instructional interaction. Emphasis will

be placed on writing techniques to ensure a conflict-free system of machine writing by drill and dictation of geographical matter, names in current events and history, number inputting, along with methods of preparing transcripts. (2 lecture and 3 laboratory hours per week). Prerequisites: CRTR 1406 and CRTR 1314.

CRTR 1312

Reporting Communications I (3 credits)

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

CRTR 1314

Reporting Technology I (3 credits)

Introduction to computer-aided transcription terminology and systems based on computer-compatible theory. The course includes lectures, dictation, and practical applications of word processing, videotaping, and computer-aided transcription, including proofreading of rough drafts and production of the finished transcript. (2 lecture and 3 laboratory hours per week). Prerequisites: CRTR 1406.

CRTR 1346

Captioning Reporting I (3 credits)

Introduction to realtime/caption production procedures with transcription of materials produced in proper form. Topics include specialized vocabulary (legal, medical, media, education, etc.), utilizing realtime/caption equipment, the psychology for writing realtime, and the procedures for operation of realtime/captioning software and hardware (2 lecture and 3 laboratory hours per week.) Prerequisite: CRTR 2401.

CRTR 1404

Machine Shorthand I (4 credits)

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

CRTR 1406

Machine Shorthand II (4 credits)

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

CRTR 1455

Dictation Speedbuilding (4 credits)

Development of conflict-free machine writing skills. This includes the development of vocabulary and skill building through concentrated emphasis through live dictation and the transcription of machine shorthand notes. The student's objective is to pass tests at 80 wpm. Emphasis is placed on production of transcripts,

including daily, supervised transcription practice. This course is for students enrolled in the Scopist Certificate Program. (2 lecture and 8 laboratory hours per week). Prerequisite: CRTR 1404.

CRTR 2306

Medical Reporting (3 credits)

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

CRTR 2311

Reporting Communications II (3 credits)

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

CRTR 2315

Reporting and Office Procedures (3 credits)

Instruction in the duties and responsibilities of the freelance reporter including the preparation of depositions. 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 saleable transcripts thereof. (2 lecture and 3 laboratory hours per week). Prerequisite: CRTR 2401.

CRTR 2317

Technical Dictation (3 credits)

Skill Development in research and writing medical and technical material encountered in the reporting profession. Students will complete 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: CRTR 2401.

CRTR 2331

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

Preparation for taking the Texas CSR and the RPR examinations through the use of mock examinations. (2 lecture and 3 laboratory hours per week). Prerequisites: CRTR 2403 and CRTR 2343.

CRTR 2333

Captioning Reporting II (3 credits)

In-depth presentation of realtime/caption production procedures with transcription of materials produced in proper form. Topics include the techniques utilized in

reporting for seminars, conferences, and conventions and in the broadcast environments. Emphasis is placed on off-line and on-line captioning. The course includes extensive supervised community interaction. (2 lecture and 3 laboratory hours per week). Prerequisite: CRTR 1346.

CRTR 2343

Simulated Courtroom Proceedings (3 credits)

Instruction in the role of the reporter in a courtroom environment. Emphasis on writing multiple-voice testimony and the production of transcripts utilizing realtime technology. (2 lecture and 3 laboratory per week). Prerequisites: CRTR 2401 and CRTR 1314.

CRTR 2380

Cooperative Education - Court Reporter (3 credits)

An experience external to the college for an advanced student in a specialized field involving a written agreement between the educational institution and a business or industry. Mentored and supervised by a workplace employee, the student achieves objectives that are developed and documented by the college and that are directly related to specific occupational outcomes. This may be a paid or unpaid experience. This course is designed for students pursuing the Court Reporting Scopist Certificate. The student will gain experience in scoping transcripts for reporters, general office procedures utilized in reporting firms, and the methods used in binding and preparing the final transcript for delivery. (1 lecture and 20 laboratory hours per week). Prerequisite: CRTR 1314, CRTR 2311.

CRTR 2381

Cooperative Education - Court Reporter (3 credits)

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

CRTR 2401

Intermediate Machine Shorthand (4 credits)

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

CRTR 2403**Advanced Machine Shorthand
(4 credits)**

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

CRTR 2435**Accelerated Machine Shorthand
(4 credits)**

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

POFT 1228**Keyboarding and Document Formatting (For Court Reporting Majors)
(2 credits)**

Skill development in the operation of the keyboard by touch applying proper keyboarding techniques. Emphasis on development of acceptable speed and accuracy levels and formatting basic documents. Two five-minute timed writings with a minimum of 60 words per minute and no more than five errors are required. An introduction to the production of court reporting forms and proper transcription techniques is presented. (2 lecture and 1 laboratory hour per week)

Criminal Justice

Maurice Cook, 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 with approval of the department chair. (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 department chair. (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 department chair. (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, Corrections
(3 credits)**

Practical general training and experiences in the workplace. The College, with the employer, develops and documents an individualized plan for the student. The plan relates the workplace training and experiences to the student's general and technical course of study. The guided external experiences may be paid or unpaid. This course may be repeated if topics and learning outcomes vary. (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, Law Enforcement
(3 credits)**

Practical general training and experiences in the workplace. The College, with the employer, develops and documents an individualized plan for the student. The plan relates the workplace training and experiences to the student's general and technical course of study. The guided external experiences may be paid or unpaid. This course may be repeated if topics and learning outcomes vary. (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 the 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).

Diagnostic Cardiovascular Sonography

Jessica Murphy, Department Chairperson

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

A method of instruction providing detailed education, training, work-based experience, and direct patient care generally at a clinical site in the speciality of electrodiagnostics. Specific learning objectives related to ECT, stress testing, and Holter monitoring will be met. Students will be instructed, supervised, and evaluated at the clinical site. (3 clinical hours/week)
Prerequisites: DMSO 1470, DMSO 1271; Corequisite: ECRD 1471

CVTT 1304**Cardiovascular Physiology
(3 Credits)**

This course offers a study of the anatomy, physiology, and structural relationships of the human heart and vascular system. Focus is on cardiac anatomy, electrophysiology, hemodynamics, and innervation of the heart and embryology. (3 lecture hours/week)

CVTT 1324**Cardiovascular Physiology II
(3 Credits)**

A continuation of Cardiovascular Physiology with emphasis on cardiovascular pathophysiology including the hemodynamic implications of common cardiovascular diseases. Topics will include etiology, pathology, signs and symptoms, risk factors, and treatment of these diseases. (3 lecture hours/week)
Prerequisite: CVTT 1304

CVTT 1370**Cardiovascular Pharmacology
(3 Credits)**

This course offers an overview of the general principles of pharmacology as it relates to the treatment of various cardiovascular disease states. Topics will include drug classification, action, dosage, route, indication, contradiction, and side effects. (3 lecture hours/week)

CVTT 1373**Cardiovascular Concepts
(3 Credits)**

This course offers a detailed study of anatomy, physiology, and pathophysiology of the cardiovascular system. Focus will be on cardiac and vascular anatomy, relationships, electrical innervation, embryology, and hemodynamics, as well as pathologic conditions including the etiology, pathology, signs and symptoms, risk factors, and treatment of cardiovascular disease. This course is only offered to those in the Advanced Technical Certificate program. (3 lecture hours/week)

DMSO 1271**Introduction to Cardiovascular Sonography
(2 Credits)**

This course is an introduction to the field of Cardiovascular Sonography and the role of the technologists. Emphasis will be placed on medical terminology, ethical/legal behavior, oral and written communication, and professional issues related to registry, accreditation, professional organizations, the history and branches of Diagnostic Medical Sonography. (2 lecture hours/week)

DMSO 1272**Basic Sonography
(2 Credits)**

This course is an introduction to the profession of Sonography including history, professional issues, registry, accreditation, and professional organizations. This course is only for those enrolled in the Advanced Technical Certificate Program. (2 lecture hours/week)

DMSO 1370**Cardiovascular Pharmacology
(3 Credits)**

This course offers an overview of the general principles of pharmacology as it relates to the treatment of various cardiovascular disease states. Topics will include drug classification, action, dosage, route, indication, contraindication, and side effects. (3 lecture hours/week)

DMSO 1371**Ultrasound Physics
(3 Credits)**

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

DMSO 1470**Basic Skills
(4 Credits)**

This course presents basic healthcare and patient care concepts. The course includes personal/patient safety, infection control, patient monitoring, vital signs, assessment, physical exam, history, and transport. (3 lecture and 2 lab hours/week)

ECHO 1170**Introduction of Echocardiography
(1 Credits)**

This is an introductory course for learning basic echocardiography theories and components. Emphasis will be placed on basic knowledge such as 2D-image orientation, identification of anatomic structures, as seen on standard echo views, and patient and transducer handling. (1 lecture hour/week)

ECHO 1360**Clinical - Introduction to Echo
(3 Credits)**

This course is an introductory clinical for learning basic echocardiography skills. Students will begin to gain hands-on experience in clinical. Emphasis will be placed on transducer handling, patient positioning, image orientation, and identification of anatomic structures found in basic echocardiography views. (16 clinical hours per week). Corequisite: ECHO 1170, DMSO 1371.

ECHO 1391**Special Topics in Echocardiography
- Emerging Technologies
(3 Credits)**

This course will cover topics in the ever-changing world of diagnostic cardiac sonography. Potential topics may include transesophageal echo, stress echo, 3D echo, tissue and Doppler harmonics, power Doppler, tissue Doppler, digital echo, contrast echo, intra-operative and intra-cardiac echo. Students will attend conferences and local society meetings as well as review current journals. (3 lecture hours/week) Prerequisite: ECHO 2472

ECHO 1470**Introduction to Echo Clinical
(4 Credits)**

This course is an introductory theory clinical for learning basic echocardiography skills. Students will begin to gain hands-on experience in clinical. Emphasis will be placed on transducer handling, patient positioning, image orientation, and identification of anatomic structures found in basic echocardiography view. (1 lecture and 16 clinical hours/week) Corequisite: DMSO 1371

ECHO 2361**Clinical - Echocardiography I
(3 Credits)**

The purpose of this course is to provide education, training, work-based experience and direct patient care, generally at a clinical site. This will include instruction, supervision, and evaluation of students in the field of echocardiography. Emphasis will be on gaining hands-on experience to develop scanning ability. (12 clinical hours/week) Prerequisites: ECHO 1360, 1170, DMSO 1371; Corequisite: ECHO 2370

ECHO 2370**Echocardiography I
(3 Credits)**

The purpose of this course is to introduce M-Mode, Doppler and basic measurement techniques. Emphasis will be placed on learning and performing a basic scan protocol to include two-dimensional, M-

Mode, and Doppler along with the standard measurements for each modality. (2 lecture and 2 lab hours/week) Prerequisites: ECHO 1470, DMSO 1371; Corequisite: ECHO 2371

ECHO 2462**Clinical - Echocardiography III
(4 credits)**

This course will provide advanced clinical education, training, experience, and patient care. It will include instruction, supervision, and evaluation of students in the field of echocardiography. Emphasis will be placed on improving accuracy, speed and proficiency of the student's skills. (16 clinical hours/week) Prerequisites: ECHO 2470, ECHO 2461; Corequisite: ECHO 2472

ECHO 2470**Echocardiography II
(4 Credits)**

The purpose of this course is to begin to integrate basic concepts and apply prior knowledge to understanding and evaluating for cardiac disease states utilizing echocardiography. Emphasis will be placed on valvular heart disease, endocarditis, ischemic heart disease, systemic and pulmonary hypertension pericardial disease, and cardiomyopathy. (2 lecture and 4 lab hours/week) Prerequisites: ECHO 2370, ECHO 2371; Corequisite: ECHO 2471

ECHO 2471**Echocardiography Clinical II
(4 Credits)**

This course is to provide additional clinical education, training, experience, and direct patient care. It will include instruction, supervision and evaluation of students in the field of echocardiography. Emphasis will be on broadening and improving existing skills. (16 clinical hours/week) Prerequisites: ECHO 2370, ECHO 2371; Corequisite: ECHO 2470

ECHO 2472**Echocardiography III
(4 Credits)**

The purpose of this course is to integrate concepts and apply knowledge to understanding and evaluating for cardiac diseases using echocardiography. Emphasis will be placed on adult congenital heart disease, diseases of the aorta and great vessels, cardiac masses, and myxomas, arrhythmias' effect on echo findings and other syndromes and diseases relevant to echocardiography. (2 lecture and 4 lab hours/week) Prerequisites: ECHO 2471, ECHO 2470; Corequisite: ECHO 2473

ECHO 2473**Echocardiography Clinical III
(4 credits)**

This course will provide advanced clinical education, training, experience, and patient care. It will include instruction, supervision, and evaluation of students in the field of echocardiography. Emphasis will be placed on improving accuracy, speed and proficiency of the student's skills. (16 clinical hours/week) Prerequisites: ECHO 2470, ECHO 2471; Corequisite: ECHO 2472

ECRD 1374**Cardiovascular Concepts
(3 Credits)**

This course will cover electrocardiographic procedures such as ECG, stress testing, and holter monitoring. It will also include patient assessment such as pulse, blood pressure, clinical monitoring, history and physical exam. Emphasis will be placed on performing and interpreting these procedures, arrhythmia recognition, and will also include pharmacology concepts and treatment methods. This course is only for those in the Advanced Technical Certificate program. (2 lecture and 2 lab hours/week)

ECRD 1471**Electrocardiography
(4 Credits)**

This course will cover the basic fundamentals of electrical cardio diagnostic procedures such as electrocardiography, stress testing, and Holter monitoring. Emphasis will be placed on performing and interpreting these procedures as well as arrhythmia recognition and identification of appropriate treatment methods for common electrical disturbances. (3 lecture and 2 lab hours/week) Prerequisites: DMSO 1470, DMSO 1271; Corequisite: CVTT 1161

MDCA 1444**Electrocardiography
(4 Credits)**

This course will cover the basic fundamentals of electrical cardiologic procedures such as electrocardiography, stress testing, and holter monitoring. Emphasis will be placed on performing and interpreting these procedures as well as arrhythmia recognition and identification of appropriate treatment methods for common electrical disturbances. (3 lecture and 2 lab hours/week). Prerequisite: DMSO 1470, DMSO 1271. Corequisite: CVTT 1161.

NIVT1170**Introduction to Vascular
1 Credit)**

This is an introductory course for learning basic non-invasive vascular theories and components. Emphasis will be placed on basic knowledge of image orientation, transducer handling, and identification of anatomic structures, as seen on standard vascular images and waveforms. (1 lecture hour per week) Corequisite: NIVT 1370, DMSO 1371

NIVT 1370**Clinical - Introduction to Non-Invasive Vascular
3 Credits)**

This is an introductory theory clinical combination for learning basic non-invasive vascular techniques. Students will begin to gain hands-on experience in clinical. Emphasis will be on patient positioning, transducer handling, image orientation, and identification of anatomic structures and waveforms. (16 clinical hours per week)

NIVT 1371**Special Topics in Vascular Technology
- Emerging Technologies**

This course will cover advances in the ever changing world of diagnostic medical sonography specifically,

peripheral non-invasive vascular technology. Possible topics may include intravascular ultrasound, transcranial doppler, 3D, power doppler, intra-operative, and abdominal vascular concepts. Students will attend conferences and local society meetings as well as review current journals. (3 lecture hours per week). Prerequisite: NIVT 2470.

NIVT 1391

Special Topics in Vascular Technology - Emerging Technologies (3 Credits)

This course will cover advances in the ever changing world of diagnostic medical sonography specifically, peripheral non-invasive vascular technology. Possible topics may include intravascular ultrasound, transcranial Doppler, 3D, power Doppler, intra-operative, and abdominal vascular concepts. Students will attend conferences and local society meetings as well as review current journals. (3 lecture hours/week) Prerequisite: NIVT 2472

NIVT 1470

Introduction to Non-Invasive Vascular Clinical (4 Credits)

This is an introductory theory clinical combination for learning basic non-invasive vascular techniques. Students will begin to gain hands-on experience in clinical. Emphasis will be on patient positioning, transducer handling, image orientation, and identification of anatomic structures and waveforms. (1 lecture and 16 clinical hours/week)

NIVT 2370

Vascular Technology I (3 Credits)

The purpose of this course is to introduce non-invasive vascular technology modalities including two-dimensional, duplex, Doppler, plethysmography, and segmental pressures. Emphasis will be on learning and performing basic exam protocols for carotid duplex, arterial duplex and non-imaging, and venous duplex along with basic measurements required for each protocol. (2 lecture and 2 lab hours/week) Prerequisites: NIVT 1470, DMSO 1371; Corequisite: NIVT 2371

NIVT 2371

Vascular Technology Clinical I (3 Credits)

The purpose of this course is to provide education, training, work-based experience, and direct patient care, generally at a clinical site. This will include instruction, supervision, and evaluation of students in the field of non-invasive vascular technology. Emphasis will be on hands-on experience to develop peripheral non-invasive vascular techniques. (12 clinical hours/week) Prerequisites: NIVT 1470, DMSO 1371; Corequisite: NIVT 2370

NIVT 2470

Vascular Technology II (4 Credits)

This course will begin to integrate basic concepts and apply prior knowledge and skills to understanding and evaluating for peripheral vascular diseases utilizing non-invasive vascular techniques. Emphasis will be placed on venous and arterial diseases of the extremities. (2 lecture and 4 lab hours/week)

Prerequisites: NIVT 2370, NIVT 2371; Corequisite: NIVT 2471

NIVT 2471

Vascular Technology Clinical II (4 Credits)

This course will provide additional clinical education, training, experience, and direct patient care. It will include instruction, supervision, and evaluation of students in the field of peripheral non-invasive vascular technology. Emphasis will be placed on broadening and improving existing skills. (16 clinical hours/week) Prerequisites: NIVT 2370, NIVT 2371; Corequisite: NIVT 2470

NIVT 2472

Vascular Technology III (4 Credits)

The purpose of this course is to integrate more advanced concepts and apply knowledge and skills to understanding and evaluating for peripheral vascular diseases using non-invasive vascular techniques. Emphasis will be placed on cerebrovascular and carotid diseases and interventions. (2 lecture and 4 lab hours/week) Prerequisites: NIT 2470, NIVT 2471; Corequisite: NIVT 2473

NIVT 2473

Vascular Technology Clinical III (4 Credits)

This course will provide advanced clinical education, training, experience, and patient care. It will include instruction, supervision, and evaluation of students in the field of non-invasive vascular technology. Emphasis will be placed on improving accuracy, speed and proficiency of student's skills. (16 clinical hours/week) Prerequisites: NIVT 2470, NIVT 2471; Corequisite: NIVT 2472

Drafting Technology

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). [CB0000008622]

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). [CB0000008622]

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. [CB0000008622]

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. [CB0000008622]

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). [CB0000008622]

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

John Duke, 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. [CB0000008824]

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-Computer
Engineering Technology
(3 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. (1 lecture and 20 laboratory hours per week)

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). [CB0000008824]

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

EMSP 1160**Emergency Medical Technician Basic - Clinical
(1 credit)**

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

EMSP 1166**EMS Practicum I
(1 credit)**

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

EMSP 1208**Emergency Vehicle Operations
(2 credits)**

Instruction, demonstration, and driving range practice to prepare drivers of emergency vehicles to operate their vehicles safely in the emergency and non-emergency mode. (1 hour per week lecture and 1 hour per week laboratory).

EMSP 1209**Emergency Medical Dispatching
(2 credits)**

Study of the principles and procedures used in emergency medical dispatching. Emphasis on general principles of information exchange and communication theory including various types of emergency medical services communication services and their operating principles and procedures. (2 hours of lecture per week).

EMSP 1261**Paramedic Clinical I
(2 credits)**

A course of instruction that provides detailed education, training, and work-based experience in the hospital clinical areas. Clinical experiences are unpaid external learning experiences. (8 hours per week external experience). Prerequisite: Completion of EMSP 1501/ EMSP 1160. Co-Requisite: Enrollment in EMSP 1338, EMSP 1356, EMSP 1355, EMSP 1166

EMSP 1338**Introduction to Advanced Practice
(3 credits)**

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

EMSP 1355**Trauma Management
(3 credits)**

A detailed study of the knowledge and skills necessary to reach competence in the assessment and management of patients with traumatic injuries. (3 hours of lecture and 1 hour of laboratory per week). Prerequisite: Completion of EMSP 1501/ EMSP 1160. Co-Requisite: Enrollment in EMSP 1338, EMSP 1356, EMSP 1261, EMSP 1166

EMSP 1356**Patient Assessment and Airway Management
(3 credits)**

A detailed study of the knowledge and skills required to reach competency in performing patient assessment and airway management. (2 hours of lecture and 3 hours of laboratory per week). Prerequisite: Completion of EMSP 1501/ EMSP 1160. Co-Requisite: Enrollment in EMSP 1338, EMSP 1355, EMSP 1261, EMSP 1166

EMSP 1391**Special Topics in EMS
(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. (2 hours lecture, and 2 hours laboratory per week).

EMSP 1501**Emergency Medical Technician - Basic
(5 credits)**

Introduction to the level of Emergency Medical Technician (EMT) - Basic. Includes all the skills necessary to provide emergency medical care at a basic life support level with an ambulance service or other specialized service. (4 lecture and 4 laboratory hours per week). Co-Requisites: American Heart Association or Red Cross CPR certification. Enrollment in EMSP 1160

EMSP 2160**Paramedic Clinical II
(1 credit)**

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

EMSP 2166**Paramedic Practicum II
(1 credit)**

A course of instruction that provides detailed education, training, and work-based experience in the pre-hospital area. Clinical experiences are unpaid external learning experiences. (7 hours per week external experience). Prerequisite: Completion of EMSP 1501/ EMSP 1160/ EMSP 1338/ EMSP 1356/ EMSP 1355/ EMSP 1261/ EMSP 1166/ EMSP 2444/ EMSP 2248/ EMSP2338/ EMSP 2160/ EMSP 2434/ EMSP 2261. Co-Requisite: Enrollment in EMSP 2330/ EMSP 2243

EMSP 2243**Assessment Based Management
(2 credits)**

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

EMSP 2248**Emergency Pharmacology
(2 credits)**

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

EMSP 2261**Paramedic Clinical III
(2 credits)**

A course of instruction that provides detailed education, training, and work-based experience in the hospital areas specializing in the care of patients with medical emergencies. Clinical experiences are unpaid external learning experiences. (9 hours per week external experience). Prerequisite: Completion of EMSP 1501/ EMSP 1160/ EMSP 1338/ EMSP 1356/ EMSP 1355/ EMSP 1261/ EMSP 1166/ EMSP 2444/ EMSP 2248/ EMSP2338/ EMSP 2160. Co-Requisite: Enrollment in EMSP 2434

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

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

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

A detailed study of the knowledge and skills necessary to reach competence in the assessment and management of ill or injured patients in non-traditional populations. (2 hours of lecture and 2 hours of laboratory per week). Prerequisite: Completion of EMSP 1501/ EMSP 1160/ EMSP 1338/ EMSP 1356/ EMSP 1355/EMSP 1261/ EMSP 1166/ EMSP 2444/ EMSP 2248/ EMSP2338/EMSP 2160/ EMSP 2434/ EMSP 2261. Co-Requisite: Enrollment in EMSP 2243/ EMSP 2166

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

A detailed study of the knowledge and skills necessary to reach competence to safely manage the scene of an emergency. (2 hours of lecture and 2 hours of laboratory per week). Prerequisite: Completion of EMSP 1501/ EMSP 1160/ EMSP 1338/ EMSP 1356/ EMSP 1355/EMSP 1261/ EMSP 1166. Co-Requisite: Enrollment in EMSP 2444, EMSP 2248, EMSP 2160

EMSP 2345**EMS Supervision/ Management
(3 credits)**

Instruction, literary review, group discussions, and case study on topics pertinent to the emergency medical service (EMS) supervisor or manager. (2 hours of lecture, and 4 hours of laboratory per week).

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

Primary and/or secondary research in current and emerging issues in EMS. Basic research principles, scientific inquiry, and interpretation of professional literature are emphasized. (2 hours of lecture, and 2 hours of laboratory per week).

EMSP 2358**Critical Care Paramedic
(3 credits)**

Prepares paramedics and nurses to function as a critical care transport team. (2 hours of lecture and, 2 hours of laboratory). Prerequisite: Completion of EMSP 1501/ EMSP 1160/ EMSP 1338/ EMSP 1356/ EMSP 1355/ EMSP 1261/ EMSP 1166/ EMSP 2444/ EMSP 2248/ EMSP2338/ EMSP 2160/ EMSP 2434/ EMSP 2261/ EMSP 2330/ EMSP 2243/ EMSP 2166 Or current Texas Department of Health Paramedic certification or Paramedic Licensure.

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

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

EMSP 2444**Cardiology
(4 credits)**

A detailed study of the knowledge and skills necessary to reach competence in the assessment and management of patients with cardiac emergencies. (3 hours of lecture and 3 hours of laboratory and per week). Prerequisite: Completion of EMSP 1501/ EMSP 1160/ EMSP 1338/ EMSP 1356/ EMSP 1355/ EMSP 1261/ EMSP 1166. Co-Requisite: Enrollment in EMSP 2248, EMSP 2338, EMSP 2160

English

*Bill Crider, Department Chairperson
Mike Bass, Gilbert Benton, James Creel, Dickie Fox,
Bea Hugetz, 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). [CB3201085535]

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. [CB0301025339]

GEOL1305
Environmental Geology
(3 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 hours per week). Prerequisite: GEOL 1401 or GEOL 1403. [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 1401 or GEOL 1403. [CB400601539]

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

John Duke, Department Chairperson
Tim Reynolds, Gregory Roof, Kevin Jefferies

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

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). [CB0106015121]

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]

LGLA1346

Civil Litigation I (3 credits)

This course presents fundamental concepts and procedures of civil litigation with emphasis on the paralegal's role. Civil Litigation I together with LGLA 1347 Civil Litigation II covers litigation from the pre-trial stage to the post-trial phase. Federal law will be emphasized in this course. Corequisites: READ 0309 and ENGL 0310.

LGLA1347

Civil Litigation II (3 credits)

This course presents fundamental concepts and procedures of civil litigation with emphasis on the paralegal's role. Civil Litigation II together with LGLA 1346 Civil Litigation I covers litigation from the pre-trial stage to the post-trial phase. State law will be emphasized in this course. Pre requisite: LGLA 1346. Corequisites: READ 0309 and ENGL 0310.

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]

LGLA 1380, LGLA 2381

Cooperative Education (Internship) - Legal Assistant (3 credits)

The objective of the cooperative education course is to combine the student's classroom learning with work experience. This is accomplished through the cooperation of the instructor, employer and student. The instructor or department chair can usually assist students in obtaining a **non-paying** internship for this course. If this assistance is required, it is necessary to contact the department chair in advance of beginning the course, so an internship can be arranged. However, if the student requires a paid internship, they are responsible for obtaining such a position themselves, as these are very limited. It is helpful to contact the department chair to determine possible job listings. (1 lecture and 20 lab hours per week)

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]

LGLA 2331

Advanced Legal Research and Writing (3 credits)

This course builds upon skills acquired in prior legal research and writing courses including computerized research techniques and preparation of legal documents such as briefs, legal office memoranda, pleadings and citation forms. (3 lecture hours per week) Prerequisite: LGLA 1301

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).

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).

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).

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).

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).

BMGT2311
Management of Change
(3 credits)

Knowledge, skills, and tools that enable a leader/organization to facilitate change in a pro-active 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).

BUSG2309
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).

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).

Mathematics

Bette Nelson, Department Chairperson

James Boler, Jennifer Hopkins, Tammi Lansford,
Deanna Dick, Charles Kilgore.

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, linear equations and inequalities, applications, polynomial, and rational expression operations and equations. The purpose of MATH 0310 is to prepare students for MATH 0312. Students enrolling in this course must meet the developmental algebra standard on the placement test or have passed MATH 0309 with a grade of A, B, or C. (3 lecture hours and 1 lab hour per week). [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 students for MATH 1314. Students enrolling in this course must meet the intermediate algebra standard on the placement test or have passed MATH 0310 with a grade of A, B, or C. (3 lecture hours per week). [CB3201045237]

MATH1314**College Algebra
(3 credits)**

This course includes a review of the fundamental concepts of intermediate algebra, followed by a more intensive study of algebraic equations and inequalities, functions and graphs, graphs and zeros of polynomial functions, rational functions and conic sections, exponential and logarithmic functions, systems of equations, matrices and the binomial theorem. Graphing calculators (TI-83 or comparable models) are required. Students enrolling in this course must meet the college algebra standard on the placement test or have passed MATH 0312 with a grade of A, B, or C. (3 lecture hours per week). [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 business, economics, management, and finance students. The course begins with a review of linear equations and functions followed by a study of matrices, inequalities and linear programming, quadratic functions, exponential and logarithmic functions, mathematics of finance, and concludes with a study of probability and statistics. Applications in business and economics will be emphasized (3 lecture hours per week). Prerequisite: MATH 1314. [CB2703015237]

MATH1325**Business Calculus
(3 credits)**

This course is designed for business, economics, management, and finance students. The course includes a study of derivatives, higher order derivatives, indefinite integrals, definite integrals, and functions of two or more variables. Applications in business and economics will be emphasized. (3 lecture hours per week). Prerequisite: MATH 1314 or MATH 1324. [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]

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)**

The course is designed to meet the needs of mathematics, engineering and science students. The 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. The purpose of MATH 1348 is to prepare the student for MATH 2413. 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]

MATH1350**Fundamentals of Mathematics I**

This course is designed specifically for students who seek teacher certification. Topics and concepts in this course include concepts of sets, functions, numeration systems, number theory, and properties of the natural numbers, intergers, rational, real, and real number systems with an emphasis on problem solving and critical thinking. Prerequisite: MATH 1314 or equivalent. [CB2701015619]

MATH1351**Fundamentals of Mathematics II**

This course is designed specifically for students who seek teacher certification. Topics and concepts in this course include concepts of geometry, probability, and statistics, as well as applications of algebraic properties of real numbers to concepts of measurement with an emphasis on problem solving and critical thinking. Prerequisite: MATH 1314 or MATH 1350 or equivalent. [CB2701015619]

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)

This course is designed to meet the needs of mathematics, engineering, and science students. Topics included in this course are vectors and vector operations, limits, continuity, differentiation and integration of algebraic and transcendental functions, with applications such as optimization, curve sketching, and finding area under a curve. Students enrolling in this course should have previously taken two years of high school algebra, a course in plane trigonometry, and a course in analytic geometry, or passed MATH 1314, 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 include differentiation and integration of hyperbolic and inverse trigonometric functions, techniques of integration, sequences and series, and applications such as the area between curves. (4 lecture hours per week). Prerequisites: MATH 2413 or 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

CMSW 1341
Behavior Modification and Cognitive Disorder
(3 credits)

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

DAAC 1304
Pharmacology of Addiction
(3 credits)

Psychological, physiological, and sociological effects of mood altering substances and behaviors and their implications for the addiction process are discussed. Emphasis is placed on pharmacological effects of tolerance, dependency/withdrawal, cross addiction, and drug interaction. (3 lecture hours per week)

DAAC 1307
Addicted Family Intervention
(3 credits)

An introduction to the family as a dynamic system focusing on the effects of addiction pertaining to family roles, rules, and behavior patterns. Discuss the impact of mood altering substances and behaviors and therapeutic alternatives as they relate to the family from a multicultural and transgenerational perspective. (3 lecture hours per week)

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

Examines procedures by which a counselor/program identifies and evaluates an individual's strengths, weaknesses, problems, and needs which will be used in the development of a treatment plan. Prepares the student to appropriately explain assessment results and individual rights to clients. (3 lecture hours per week)

DAAC 1311
Counseling Theories
(3 credits)

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

DAAC 1314
Dynamics of Group Counseling
(3 credits)

An introduction to the patterns and dynamics of group interactions across the life span. Focus includes group therapy, structure, types, stages, development, leadership, therapeutic factors, the impact of groups on the individual, group growth, and behavior. Effective group facilitation skills and techniques used to address special population issues and needs are covered. Effective case management and record keeping are addressed. (3 lecture hours per week)

DAAC 1317
Basic Counseling Skills
(3 credits)

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

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

Causes and consequences of addiction as they relate to the individual, family, community, and society are discussed. Response alternatives regarding intervention, treatment, education, and prevention are reviewed. Competencies and requirements for

licensure in Texas are explained. Addiction issues related to diverse populations are presented. (3 lecture hours per week)

DAAC 1341
Counseling Alcohol and Other Drug Addictions
(3 credits)

This course will focus on special skills and techniques in the application of counseling skills for the Alcohol and Other Drug (AOD) client. Design and utilization of treatment planning using a treatment team approach will be introduced. Confidentiality and ethical issues will be reviewed and practiced. (3 lecture hours per week)

DAAC 1343
Current Issues
(3 credits)

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

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

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

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

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

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

This course is an exploration of the impact an alcoholic or chemical abuser has on the life of their children. Psychosocial development and behavior patterns indicative of adults who are children of alcoholics will be examined. (3 lecture hours per week)

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

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

GER 1301
Introduction to Gerontology
(3 credits)

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

PMHS 1301
Introduction to Mental Health and Retardation
(3 credits)

A brief survey of the historical development of social services. Emphasis on current needs, practices, and projected changes. Topics include psychoanalytic theories related to mental retardation, psychotherapy and retarded children, and special problems faced by mentally retarded. We will examine why individuals enter the helping professions. (3 lecture hours per week)

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

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

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

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

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

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

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

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

RECT 1301
Introduction to Therapeutic Recreation
(3 credits)

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

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)

Sally Durand, Director

Sharon Hightower, Susan Priest, Christy Scales, Tess Pape, Miriam Villageliu

All ADN courses under [CB000008021]

RNSG 1108**Dosage Calculations for Nursing
(1 credit)**

Dosage calculations include reading, interpreting and solving calculations problems encountered in the preparation of medications; and the conversion of measurements with the apothecary, avoirdupois, and metric system. This course emphasizes critical thinking skills and techniques needed to safely calculate medication dosages. (1 lecture hour per week). Prerequisites: BIOL 2401, PSYC 2301, PSYC 2314, ENGL 1301 Corequisites: BIOL 2402, RNSG 1513, RNSG 1215, RNSG 1262

RNSG1215**Health Assessment
(2 credits)**

Development of skills and techniques required for a comprehensive health assessment within a legal/ethical framework. This course emphasizes critical thinking skills and techniques needed to perform health assessments of the adult client and families. (1 lecture and 2 lab hours per week). Prerequisites: BIOL 2401, PSYC 2301, PSYC 2314, ENGL 1301 Corequisites: BIOL 2402, RNSG 1513, RNSG 1108, RNSG 1262

RNSG1246**Legal and Ethical Issues for Nurses
(2 credits)**

Study of the laws and regulations related to the provision of safe and effective professional nursing care; attention given to the development of a framework for addressing ethical issues; and topics to include confidentiality, the Nursing Practice Act, professional boundaries, ethics, and health care legislation. Emphasis is on collaboration to analyze and integrate legal/ethical issues as related to professional nursing practice. (2 lecture hours per week) Prerequisites: RNSG 2213, RNSG 2162, RNSG 1417, RNSG 1263. Corequisites: RNSG 1461 and RNSG 1512, Fine Arts/Humanities Elective.

RNSG1262**Clinical Nursing: Foundations for Nursing Practice (2 credits)**

A method of instruction providing detailed education, training and work-based experiences and direct patient/client care, generally at a clinical site. Specific detailed learning objectives are developed for each course by the faculty. On-site clinical instruction, supervision, evaluation, and placement is the responsibility of the college faculty. Clinical experiences are unpaid external learning experiences. Course may be repeated if topics and learning outcomes vary. Clinical experiences allow the student opportunities to begin utilizing nursing skills in caring for adult clients in acute care settings. A major concept is the beginning application of critical thinking. (6 clinical hours per week). Prerequisites: BIOL 2401, PSYC 2301, PSYC 2314, ENGL 1301 Corequisites: BIOL 2402, RNSG 1513, RNSG 1215, RNSG 1108

RNSG1263**Clinical Nursing: Concepts of Nursing Practice I for Articulating Students (2 credits)**

A method of instruction providing detailed education, training and work-based experiences and direct patient/client care, generally at a clinical site. Specific detailed learning objectives are developed for each course by the faculty. On-site clinical instruction, supervision, evaluation, and placement is the responsibility of the college faculty. Clinical experiences are unpaid external learning experiences. Course may be repeated if topics and learning outcomes vary. Clinical experiences allow the student opportunities to practice nursing skills and in caring for adult clients in acute care and other selected settings. Concepts include application of critical thinking, management skills and therapeutic communication. (6 clinical hours per week). Prerequisites: BIOL 2401, BIOL 2402, BIOL 2420, PSYC 2301, PSYC 2314, ENGL 1301, and PHED (activity). Corequisites: RNSG 1215, RNSG 1417.

RNSG1417**Concepts of Nursing Practice I for Articulating Students (4 credits)**

Provides the articulating student the opportunity to examine the role of the associate degree nurse; application of a systematic problem solving process and critical thinking skills which includes a focus on the adult population in selected settings; and competency in knowledge, judgement, skill and professional values within a legal/ethical framework. The course includes normal and abnormal biological, cultural, and psychosocial components. Incorporated are concepts of society, client/ family, health and nursing roles-- provider of care, coordinator of care, member of a profession Concurrent clinical enrollment required. (3 lecture hours and 2 lab hours). Prerequisites: BIOL 2401, BIOL 2402, BIOL 2420, PSYC 2301, PSYC 2314, ENGL 1301, and PHED (activity). Corequisites: RNSG 1215, RNSG 1263.

RNSG1431**Principles of Clinical Decision-Making (4 credits)**

Integration of previous knowledge and skills into the continued development of the associate degree nurse as a provider of care, coordinator of care, and member of the profession in the care of adult clients and families in structured health care settings. The course incorporates judgements, skills, and professional values within a legal/ethical framework. It includes biological, cultural, and psychosocial components with a focus on the adult population in selected settings. Emphasis is on application of systematic problem solving processes and critical thinking skills. Concepts of society, client/family, health and nursing roles are incorporated. Concurrent clinical enrollment required. (3 lecture and 2 lab hours per week). Prerequisites: BIOL 2402, RNSG 1513, RNSG 1215, RNSG 1262, RNSG 1108 Corequisites: BIOL 2420, PHED (activity), RNSG 1560

RNSG1447**Concepts of Clinical Decision-Making (4 credits)**

Application of advanced concepts and skills for the development of the associate degree nurse's roles in complex nursing situations with adult clients. This course is a continuation of Principles of Clinical Decision-Making or Concepts of Nursing Practice I for Articulating Students. Emphasis is on analysis and synthesis of knowledge and skills based upon previous nursing and science courses. Concurrent clinical enrollment required. (3 lecture hours and 2 lab hours) Prerequisites: RNSG 2213, RNSG 2162 or RNSG 1417, RNSG 1263. Corequisites: RNSG 2560 and RNSG 2131, ENGL 1302, PHED (activity).

RNSG1461**Clinical Nursing: Nursing Care of the Childbearing and Childrearing Family (4 credits)**

A method of instruction providing detailed education, training and work-based experiences and direct patient/client care, generally at a clinical site. Specific detailed learning objectives are developed for each course by the faculty. On-site clinical instruction, supervision, evaluation, and placement is the responsibility of the college faculty. Clinical experiences are unpaid external learning experiences. Course may be repeated if topics and learning outcomes vary. Clinical experience provides the student with opportunities to care for and observe the family during pregnancy, childbirth and childrearing in both the hospital and clinic settings. (12 clinical hours per week). Prerequisites: RNSG 2213, RNSG 2162 or RNSG 1417, RNSG 1263. Corequisites: RNSG 1246 and RNSG 1512, Fine Arts/Humanities Elective.

RNSG1512**Nursing Care of the Childbearing and Childrearing Family (5 credits)**

Study of the concepts related to the provision of nursing care for childbearing and childrearing families; application of systematic problem solving processes and critical thinking skills, including a focus on the childbearing family during preconception, prenatal, antepartum, neonatal and postpartum periods and the

childrearing family from birth to adolescence; and competency in knowledge, judgement, skill and professional values within a legal/ethical framework. Analysis and synthesis of knowledge and skills are based upon normal and abnormal assessment findings. Concurrent clinical enrollment required. (4 lecture and 2 lab hours per week.) Prerequisites: RNSG 2213, RNSG 2162 or RNSG 1417, RNSG 1263. Corequisites: RNSG 1246 and RNSG 1461, Fine Arts/Humanities Elective.

RNSG1513**Foundations for Nursing Practice (5 credits).**

Introduction to the role of the associate degree nurse as a provider of care, coordinator of care, and member of a profession. Topics include knowledge, judgement, skill and professional values within a legal/ethical framework. Emphasis is on the introduction of systematic problem solving processes and critical thinking skills. Concepts of society, client/family, health and nursing roles are incorporated. Concurrent clinical enrollment required. (4 lecture and 3 lab hours per week). Prerequisites: BIOL 2401, PSYC 2301, PSYC 2314, ENGL 1301 Corequisites: BIOL 2402, RNSG 1215, RNSG 1108, RNSG 1262

RNSG1560**Clinical Nursing: Principles of Clinical Decision-Making (5 credits)**

A method of instruction providing detailed education, training and work-based experiences and direct patient/client care, generally at a clinical site. Specific detailed learning objectives are developed for each course by the faculty. On-site clinical instruction, supervision, evaluation, and placement is the responsibility of the college faculty. Clinical experiences are unpaid external learning experiences. Course may be repeated if topics and learning outcomes vary. Clinical experiences allow the student opportunities to practice nursing skills in caring for adult clients in acute care and other selected settings. Concepts include application of critical thinking and management skills (16 clinical hours per week). Prerequisites: BIOL 2402, RNSG 1513, RNSG 1215, RNSG 1262, RNSG 1108. Co-requisites: BIOL 2420, PHED (activity), RNSG 1431

RNSG2131**Management of Client Care (1 credit)**

Exploration of leadership and management principles applicable to the role of the nurse as a provider of care, coordinator of care, and member of a profession. Includes application of knowledge, judgement, skills, and professional values within a legal/ethical framework. (1 lecture hour per week) Prerequisites: RNSG 2213, RNSG 2162 or RNSG 1417, RNSG 1263. Corequisites: RNSG 2431 and RNSG 2560, ENGL 1302, PHED (activity).

RNSG2162**Clinical Nursing: Mental Health Nursing (1 credit)**

A method of instruction providing detailed education, training and work-based experiences and direct patient/client care, generally at a clinical site. Specific detailed learning objectives are developed for each

course by the faculty. On-site clinical instruction, supervision, evaluation, and placement is the responsibility of the college faculty. Clinical experiences are unpaid external learning experiences. Clinical experiences provide opportunities for student to interact therapeutically with clients both individually and in groups. Course may be repeated if topics and learning outcomes vary. (3 clinical hours per week). Prerequisites: BIOL 2420, PHED (activity), RNSG 1431, RNSG 1560. Co-requisites: RNSG 2213

RNSG2213

Mental Health Nursing (2 credits)

Principles and concepts of mental health, psychopathology, and treatment modalities related to the nursing care of clients and their families will be stressed. The course focuses on the study of behavioral patterns considered to be deviations from normal. Emphasis is on applying therapeutic communication, critical thinking skills, and systematic problem-solving processes within a legal/ethical framework. Concurrent clinical enrollment required. (2 lecture hours per week) Prerequisites: BIOL 2420, PHED (activity), RNSG 1443, RNSG 1560. Corequisites: RNSG 2162

RNSG2560

Concepts of Clinical Decision-Making (5 credits)

A method of instruction providing detailed education, training and work-based experiences and direct patient/client care, generally at a clinical site. Specific detailed learning objectives are developed for each course by the faculty. On-site clinical instruction, supervision, evaluation, and placement is the responsibility of the college faculty. Clinical experiences are unpaid external learning experiences. Course may be repeated if topics and learning outcomes vary. Clinical experiences allow the student opportunities to utilize critical thinking skills in the care of acutely ill adult clients. Concepts of team management are integrated. (16 clinical hours per week). Prerequisites: RNSG 2213, RNSG 2162 or RNSG 1417, RNSG 1263. Corequisites: RNSG 1447 and RNSG 2131, ENGL 1302, PHED (activity).

Nursing (Vocational)

Judy Siefert, Department Chairperson
Glo Ann Cole

All VOEN courses under [CB0000007821]

VNSG1122

Vocational Nursing Concepts (1 credit)

Introduction to the nursing profession and its responsibilities and the legal and ethical issues in nursing practice. Concepts related to the physical, emotional, and psychosocial self-care of the learner/professional. Learning Outcomes: The student will discuss the personal adjustments essential to the development of the vocational nurse; identify the role of the licensed vocational nurse; and discuss the legal and ethical responsibilities in vocational nursing practice. (1 lecture hour per week).

VNSG1136

Mental Health (1 credit)

Introduction to the principles and theories of positive mental health and human behaviors. Topics include emotional responses, coping mechanisms, and therapeutic communication skills. Learning Outcomes: The student will describe the characteristics of positive mental health; identify the coping mechanisms utilized by individuals to assist in alleviating stress and anxiety; and demonstrate the use of therapeutic communication skills. (1 lecture hour per week).

VNSG1160

Clinical - Practical Nurse I (Fundamentals) (1 credit)

A method of instruction providing detailed education, training and work-based experience, and direct patient/client care, generally at a clinical site. Specific detailed learning objectives are developed for each course by the faculty. On-site clinical instruction, supervision, evaluation, and placement is the responsibility of the college faculty. Clinical experiences are unpaid external learning experience. Course may be repeated if topics and learning outcomes vary. Learning Outcomes: As outlined in the learning plan, the student will apply the theory, concepts, and skills involving specialized materials, equipment, procedure, regulations, laws, and interactions within and among political, economic, environmental, social, and legal systems associated with the particular occupation and the business/industry, and demonstrate legal and ethical behavior, safety practices, interpersonal and teamwork skills, communicating in the applicable language of the occupation and the business or industry. (5 clinical hours per week). Corequisite: VNSG 1423

VNSG1219

Professional Development (2 credits)

Study of the importance of professional growth. Topics include the role of the licensed vocational nurse in the multi-disciplinary health care team, professional organizations, and continuing education. Learning Outcomes: The student will describe the role of the licensed vocational nurse in multi-disciplinary settings inclusive of basic principles of leadership and management; discuss the role of professional organizations and regulatory agencies; and identify criteria and appropriate resources for continuing education. (2 lecture hours per week).

VNSG1227

Essentials of Medication Administration (2 credits)

General principles of medication administration including determination of dosage, preparation, safe administration, and documentation of multiple forms of drugs, IV administration is not included. Instruction includes various systems of measurement. Lab required. Learning Outcomes: The student will demonstrate accurate dosage calculation; discuss the principles of medication administration safety; and identify the elements of accurate documentation of medication administration. (1 lecture and 2 laboratory hours per week).

VNSG1238

Mental Illness (2 credits)

Study of human behavior with emphasis on emotional and mental abnormalities and modes of treatment incorporating the nursing process. Learning Outcomes: The student will identify common mental illnesses and maladaptive behavior, utilize the nursing process to assist in planning care for the individual with mental illness or maladaptive behavior; and discuss trends in the management of the individual requiring psychotherapeutic treatment. (2 lecture hours per week).

VNSG1329

Medical Surgical Nursing I (3 credits)

Application of the nursing process to the care of adult and geriatric patients experiencing respiratory, gastrointestinal, genitourinary, musculoskeletal, and dermatological medical-surgical conditions in the health-illness continuum. A variety of health care settings are utilized. Learning Outcomes: The student will identify the components of the health-illness continuum; identify prevalent respiratory, gastrointestinal, genitourinary, musculoskeletal, and dermatological medical surgical conditions affecting the adult and gerian and utilize the nursing process to assist in developing a plan of care for selected medical-surgical conditions. (3 lecture hours per week). Corequisite: VNSG 1661.

VNSG1330

Maternal - Neonatal Nursing (3 credits)

Utilization of the nursing process in the assessment and management of the child bearing family. Emphasis on the bio-psycho-socio-cultural needs of the family during the phases of pregnancy, childbirth, and the neonatal period including abnormal conditions. Learning Outcomes: The student will discuss the bio-psycho-socio-cultural needs of the childbearing family; and utilize the nursing process to assist in planning the care of the childbearing family. (3 lecture hours per week). Corequisite: VNSG 1660.

VNSG1331

Pharmacology (3 credits)

Fundamentals of medications and their diagnostic, therapeutic, and curative effects. Includes nursing interventions utilizing the nursing process. Learning Outcomes: The student will identify properties, effects, and principles of pharmacotherapeutic agents; and list common nursing interventions associated with the various pharmacotherapeutic agents. (3 lecture hours per week).

VNSG1332

Medical - Surgical Nursing II (3 credits)

Continuation of Medical-Surgical Nursing I with application of the nursing process to the care of adult and geriatric patients experiencing cardiovascular, neurosensory, endocrine, and oncological medical-surgical conditions in the health-illness continuum. Includes a variety of health care settings. Learning Outcomes: The student will identify the components of

the health-illness continuum; identify prevalent cardiovascular, neurosensory, endocrine, and oncological medical surgical conditions affecting the adult and gerian and utilize the nursing process to assist in developing a plan of care for selected medical-surgical conditions. (3 lecture hours per week). Corequisite: VNSG 1661.

VNSG1334

Pediatrics

(3 credits)

Study of childhood growth & development childhood diseases and childcare from infancy through adolescence. Focus on the care of the well and the ill child utilizing the nursing process. Learning Outcomes: The student will identify principles of growth & development and utilize the nursing process to assist in planning care for the well or ill child. (3 lecture hours per week). Corequisite: VNSG 1660.

VNSG1420

Anatomy & Physiology for Allied Health

(4 credits)

Introduction to the normal structure and function of the body including an understanding of the relationship of body systems in maintaining homeostasis. Learning Outcomes: The student will identify the structure of each of the major body systems; describe the function of each of the major body systems; and discuss the interrelationship of systems in maintaining homeostasis. (4 lecture hours per week).

VNSG1423

Basic Nursing Skills

(4 credits)

Mastery of entry level nursing skills and competencies for a variety of health care settings. Utilization of the nursing process as the foundation for all nursing interventions. Lab required. Learning Outcomes: The student will demonstrate competency in basic nursing skills; identify the steps in the nursing process and how each relates to nursing care; and discuss the delivery of basic nursing skills in a variety of health care setting. (3 lecture and 4 laboratory hours per week). Corequisite: VNSG 1160.

VNSG1660

Clinical - Practical Nurse II (Maternal-Child)

(6 credits)

A method of instruction providing detailed education, training, and work-based experience, and direct patient/client care, generally at a clinical site. Specific detailed learning objectives are developed for each course by the faculty. On-site clinical instruction, supervision, evaluation, and placement is the responsibility of the college faculty. Clinical experiences are unpaid external learning experience. Course may be repeated if topics and learning outcomes vary. Learning Outcomes: As outlined in the learning plan, the student will apply the theory, concepts, and skills involving specialized materials, equipment, procedure, regulations, laws, and interactions within and among political, economic, environmental, social, and legal systems associated with the particular occupation and the business/industry, and demonstrate legal and ethical behavior, safety practices, interpersonal and teamwork skills, communicating in the applicable language of the

occupation and the business or industry. (24 clinical hours per week). Corequisites: VNSG 1330 and VNSG 1334.

VNSG1661

Clinical - Practical Nurse III (Med-Surg)

(6 credits)

A method of instruction providing detailed education, training and work-based experience, and direct patient/client care, generally at a clinical site. Specific detailed learning objectives are developed for each course by the faculty. On-site clinical instruction, supervision, evaluation, and placement is the responsibility of the college faculty. Clinical experiences are unpaid external learning experience. Course may be repeated if topics and learning outcomes vary. Learning Outcomes: As outlined in the learning plan, the student will apply the theory, concepts, and skills involving specialized materials, equipment, procedure, regulations, laws, and interactions within and among political, economic, environmental, social, and legal systems associated with the particular occupation and the business/industry, and demonstrate legal and ethical behavior, safety practices, interpersonal and teamwork skills, communicating in the applicable language of the occupation and the business or industry. (24 clinical hours per week). Corequisites: VNSG 1329 and VNSG 1332.

Nutrition

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. [CB0000008021]

Office Administration

Crystal Price, 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]

ACNT1382

Cooperative Education -

Accounting Technician

(3 credits)

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

POFI1380

Cooperative Education - Information

Processing/Data Entry Technician

(3 credits)

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

POFI1401

Computer Applications I

(4 Credits)

Overview of computer applications including current terminology and technology. Introduction to computer hardware, software applications, and procedures. Instruction in embedding data and linking and combining documents using word processing, spreadsheets, databases, and presentation media software. Prerequisite: POFT 1429/2401

POFI1441

Computer Applications II

(4 credits)

Continued study of current computer terminology and technology. Advanced skill development in computer hardware, software applications, and procedures. Instruction in embedding data and linking and combining documents using word processing, spreadsheets, databases, and presentation media software. Prerequisite: POFI 1401.

POFI2401**Word Processing
(4 credits)**

Instruction in the various aspects of a word processing software package. Emphasis on the use of text editing features to produce business documents. Prerequisite: POFT 1429/2401

POFL1303**Legal Office Procedures
(3 credits)**

Study of the administrative duties of support personnel in a law office including issues involved in understanding and using social, organizational, and technological systems. Prerequisite: Keyboarding Skills and Computer Literacy.

POFL1305**Legal Terminology
(3 credits)**

An introduction to legal terminology including spelling, pronunciation, and definition of legal terms and an overview of the law and the professions.

POFL1380, 2380**Cooperative Education - Legal Administrative Assistant/Secretary
(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.

POFL1459**Legal Transcription
(4 credits)**

Skill development in comprehensive vocabulary, listening, organizing, and transcribing client-quality documents used in a legal office. Prerequisites: POFL1305, POFT 2401.

POFL2305**Legal Research
(3 credits)**

Exploration of legal issues utilizing current and emerging research techniques. Prerequisite: POFL 1305.

POFM1313**Medical Terminology I
(3 credits)**

Instruction in the practical application of a medical vocabulary system. Topics include structure; recognition; analysis; definitions; spelling; pronunciation; and combination of medical terms from prefixes, suffixes, roots, and combining forms. Concentration will be anatomy.

POFM1317**Medical Administrative Procedures
(3 credits)**

Instruction in medical office procedures including appointment scheduling, medical records creation and maintenance, telephone communications, coding, billing collecting, and third party reimbursement. Prerequisite: Computer Literacy

POFM1327**Medical Insurance
(3 credits)**

Survey of medical insurance including the life various claim forms, terminology, litigation, patient relations, and ethical issues. Prerequisites: POFM 1313, 2323

POFM1333**Pharmacology for Office Personnel
(3 credits)**

A study of the general classifications of drugs and their actions and side effects as they relate to anatomy and physiology. Emphasis on drug interactions with each body system, pharmaceutical medical terminology, and generic and trade names of drugs. Prerequisites: POFM 1313, 2323

POFM1335**Medical Coding
(3 credits)**

Presentation and application of basic coding rules, principles, guidelines, and conventions utilizing various coding systems. Prerequisites: POFM 1313, 2323

POFM1380, 2380**Cooperative Education - Medical Administrative Assistant/Secretary
(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.

POFM1431**Medical Transcription I
(4 credits)**

Fundamentals of medical transcription including basic reports such as history and physicals, discharge summaries, consultations, operative reports, and other medical reports. Emphasis on development of speed and accuracy. Prerequisites: POFM 1313, 2323, POFT 2401

POFM2323**Medical Terminology II
(3 credits)**

Continuation of Medical Terminology I including structure; recognition; analysis; definitions; spelling; pronunciation; and combination of medical terms from prefixes, suffixes roots and combining forms. Emphasis on various medical specialties fields. Prerequisite: POFM 1313

POFT1302**Business Communications I
(3 credits)**

Introduction to a practical application of basic language usage skills with emphasis on fundamentals of writing and editing for business.

POFT1309**Administrative Office Procedures I
(3 credits)**

Study of current office procedures including telephone skills, time management, travel and meeting arrangements, mail processing, and other duties and responsibilities in an office environment. Prerequisite: Keyboarding Skills and Computer Literacy.

POFT1329**Keyboarding & Document Formatting
(3 credits)**

Skill development in the operation of the keyboard by touch applying proper keyboarding techniques. Emphasis on development of acceptable speed and accuracy levels and formatting basic documents.

POFT1380, 2380**Cooperative Education - Administrative Assistant/Secretarial Science, General
(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.

POFT1382**Cooperative Education - General Office/Clerical and Typing Services
(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.

POFT1419**Records & Information Management I
(4 credits)**

Introduction to basic records and information management. Includes the life cycle of a record, manual and electronic records management, and basic filing procedures and rules.

POFT1425**Business Math & Machine Application
(4 credits)**

Skill development in the use of electronic calculators and business mathematical functions. Emphasis on business problem-solving skills using spreadsheet software and/or electronic calculator/keyboard.

POFT1429

**Keyboarding & Document Formatting
(4 credits)**

Skill development in the operation of the keyboard by touch applying proper keyboarding techniques. Emphasis on development of acceptable speed and accuracy levels and formatting basic documents.

POFT2401

**Document Formatting & Skillbuilding
(4 credits)**

A continuation of keyboarding skills in document formatting, speed, and accuracy. Emphasis on proofreading, editing, and following instructions, and keying documents from various copy. Prerequisite: POFT 1429

POFT2433

**Advanced Document Formatting
& Skillbuilding
(4 credits)**

Study of advanced concepts in a variety of office-simulated correspondence activities with emphasis on organization, prioritizing, decision making, composition, placement, accuracy, and speed development. Prerequisite: POFT 2401 & POFI 2401

Philosophy

John Duke, 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]

PHIL2306

**Introduction to Ethics
(3 credits)**

A philosophical reflection to the basic principles and applications of the moral life in traditional and contemporary views concerning the nature of goodness, happiness, duty and freedom. (3 lecture hours per week). Corequisite: ENGL 0310, READ 0310. [CB3801015335]

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). [CB409999139]

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

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)

CTEC2487

**Internship - Process Technology
(4 credits)**

An experience external to the college for an advanced student in the process technology field involving a written agreement between the educational institution and a business or industry. Mentored and supervised by a workplace employee, the student achieves objectives that are developed and documented by the college and that are directly related to specific occupational outcomes. (20 internship 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 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 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 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, ability assessment, 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). Prerequisites: 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). Prerequisites: 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. Prerequisites: 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/or0310 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]

Respiratory Care

Diane Flatland, Department Chairperson

Perry Bush

Wayne Hite, MD, Medical Director

All RESC courses are under [CB000008025]

RSPT1141**Respiratory Home Care/Rehabilitation
(1 credit)**

Designed to develop an understanding of respiratory home care/rehabilitation equipment, procedures, and patient care, with emphasis on the exercise physiology, the use of special technology and equipment in the treatment of patients in a subacute and/or long-term patient care setting. (4 laboratory hours per week) Prerequisites: RSPT 1329, RSPT 1316

RSPT1160**Respiratory Care Clinical
(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. (6 laboratory hours per week)

RSPT1166**Respiratory Care Practicum I
(1 credit)**

This course gives students the opportunity to perform and to demonstrate clinically the knowledge gained in parallel courses. Setups, operation, and troubleshooting involved with the more sophisticated equipment are also included. (10 laboratory hours per week) Prerequisites: RSPT 1160

RSPT1191**Special Topics in Respiratory Care (Management)
(1 credit)**

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. (4 laboratory hours per week)

RSPT1207**Cardiopulmonary Anatomy and Physiology
(2 credits)**

This course is designed to introduce the student to the physiology of the cardiovascular, renal, and pulmonary systems. The student also becomes acquainted with the terminology used in respiratory physiology. (2 lecture hours per week, 1 laboratory hour per week) Prerequisite: READ 0309

RSPT1267**Respiratory Care Practicum II
(2 credits)**

This course provides the student with the opportunity to apply skills necessary for managing and monitoring the patient-ventilator system in the intensive care setting. It includes attending physician rounds, presentation of patient assessments and respiratory care plan. (18 laboratory hours per week; 12-week summer session - 24 laboratory hours per week). Prerequisites: RSPT 2414, RSPT 1166.

RSPT1316**Basic Respiratory Care Procedures II
(3 credits)**

This in-depth study of basic respiratory care concepts, theories, and techniques emphasizes hyperinflation therapy, airway management, suctioning and chest physical therapy. Applications of these procedures are performed in the laboratory under supervision. (2 lecture and 3 laboratory hours per week) Corequisites: RSPT 1207, RSPT 1329

RSPT1317**Respiratory Care Pharmacology
(3 credits)**

A study of pharmacological principles/practices of drugs which affect the cardiopulmonary systems. Emphasis on classification, route of administration, dosages/calculations, and interaction of the autonomic nervous system. (3 lecture hours per week) Prerequisites: RSPT 1207, RSPT 1325

RSPT1325**Respiratory Care Sciences
(3 credits)**

Provides an introduction to basic sciences and mathematics needed in respiratory care. Topics covered include scientific measurement, chemistry, basic math, physics, computer applications, and cleaning and sterilization techniques. (3 lecture hours per week) Prerequisite: READ 0309.

RSPT1329**Respiratory Care Fundamentals I
(3 credits)**

Provides a foundation for the development of knowledge and skills for respiratory care including history, medical terms/symbols, medical/legal, infection control, vital signs, physical assessment, medical gas

therapy, oxygen analyzers, and humidify/aerosol therapy. Application of these procedures are performed in the laboratory under supervision. (2 lecture and 4 laboratory hours per week) Corequisites: RSPT 1316, RSPT 1160

RSPT2131**Clinical Simulations for Respiratory Care
(1 credit)**

The theory and history of clinical simulation examinations. Topics include the construction types, scoring, and mechanics of taking the exam along with practice in taking computerized simulations, and basic concepts of computer usage. (2 laboratory hours per week) Prerequisites: All previous respiratory care courses or permission of the Chairperson.

RSPT2135**Pediatric Advanced Life Support
(1 credit)**

A comprehensive course designed to develop the cognitive and psychomotor skills necessary for resuscitation of the infant and child. Strategies for preventing cardiopulmonary arrest and identification of high-risk infants and children will be presented. (3 laboratory hours per week) Corequisite: RSPT 2353

RSPT2166**Respiratory Care Practicum V
(1 credit)**

This course is designed for the student to rotate through specialty areas including the pulmonary function laboratory, hyperbaric medicine, sleep studies, emergency room, bronchoscopy, intubation, and EKG rotations. (8 laboratory hours per week)

RSPT2210**Cardiopulmonary Diseases I
(2 credits)**

A discussion of pathogenesis, pathology, radiological diagnosis, history, prognosis, manifestations, treatment, and detection of cardiopulmonary diseases. (2 lecture and 1 laboratory hour per week) Prerequisite: RSPT 1207

RSPT2239**Advanced Cardiac Life Support
(2 credits)**

A comprehensive course designed to develop the cognitive and psychomotor skills necessary for resuscitation of the adult. Strategies for managing and stabilizing the cardiopulmonary arrested patient will be included. Recognizing and interpreting EKG and their treatment, IV insertion and phlebotomy will be emphasized. (1 lecture and 4 laboratory hours per week)

RSPT2255**Critical Care Monitoring
(2 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. (2 lecture and 1 laboratory hours per week) Prerequisites: RSPT 2305, RSPT 2414, RSPT 2210

RSPT2266
Respiratory Care Practicum III
(2 credits)

In this course the student applies all respiratory concepts related to patient care to demonstrate experience as a practicing therapist with the correlation of advanced clinical and technological concepts. (16 laboratory hours per week) Prerequisites: RSPT 1267, RSPT 2314

RSPT2267
Respiratory Care Practicum IV
(2 credits)

This in-depth exposure to respiratory care and ventilator management with emphasis on neonatal and pediatric therapy. Case studies and follow-ups are presented. (18 laboratory hours per week) Prerequisites: RSPT 2414, RSPT 2266

RSPT2305
Pulmonary Diagnostics
(3 credits)

The theories and techniques involved in pulmonary function testing diagnostics with emphasis on blood gas theory and analysis, quality control, oximetry, and capnography. (2 lecture and 3 laboratory hours per week) Prerequisite: RSPT 2210

RSPT 2310
Cardiopulmonary Disease II
(3 credits)

This course is a continuation of cardiopulmonary diseases. (2 lecture and 2 laboratory hours per week) Prerequisite: RSPT 2210

RSPT2314
Mechanical Ventilation II
(3 credits)

This course is a continuation of mechanical ventilation designed to provide the student with the opportunity to set up, operate, and troubleshoot various volume ventilators on the market today. Emphasis will be placed on building skills needed to work with volume and pressure ventilators. (2 lecture and 2 laboratory hours per week) Prerequisite: RSPT 2414

RSPT2353
Neonatal/Pediatric Cardiopulmonary Care
(3 credits)

This course explores the care of the pediatric patient with cardiopulmonary disease. Cardiopulmonary anatomy and physiology, fetal development, diseases, and equipment and therapeutic techniques used in treating these diseases are covered. (3 lecture hours per week) Prerequisites: RSPT 2310, RSPT 2414
Corequisite: RSPT 2135, RSPT 2267

RSPT2414
Mechanical Ventilation I
(4 credits)

Preparation to conduct the therapeutic procedures to achieve adequate, spontaneous, and artificial ventilation with emphasis on ventilator classification, methods, principles, and operational characteristics. Also included are the indications, complications, and physiologic effects/principles of mechanical ventilation. (3 lecture and 2 laboratory hours per week) Prerequisites: RSPT 1316

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). Prerequisites: READ 0310 and ENGL 0310. [CB4511015142]

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. The topics may include population, poverty, social minorities, mass society, delinquency, crime, drugs, sexual deviance, and disorganization of family, education, and religion. (3 lecture hours per week). Prerequisites: 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). Prerequisites: 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, Hispanic Americans, and Asian Americans. (3 lecture hours per week). Prerequisites: 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
(4 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). [CB1609055131]

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. [CB1609055131]

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. [CB1609055231]

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)

Jennifer Hightower, Department
Chairperson/Athletic Director

Bryan Alexander, Don Childs, Gary Coffman, Bonny Johnson, Jennifer Hightower

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 - East Coast Swing
(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 cardio-vascular 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
Health and Wellness
(3 credits)

This course presents the essential present-day knowledge of health and wellness. 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. Topics such as nutrition, mental health, stress management, drugs and aspects of health and fitness are also included. (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]

PHED1307
Officiating Baseball
(3 credits)

This course teaches the rules of baseball. It provides opportunities for experience in intramurals, practice and varsity games. (3 lecture hours per week). Corequisite: READ 0309. [CB1202045128]

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), technical Certificate of Completion Programs are offered. These certificate programs are designed to provide skills which enable the student to be placed in entry-level employment within a chosen specialty.

A certificate of completion is awarded when the student satisfactorily completes the course sequences described for a selected program.

CERTIFICATE PROGRAMS
(Less Than 12 Months)

Automotive Technology
Computer Repair
Computer Science
Horticulture (Ornamental)
Welding

Automotive Technology

Charles Graham, Terry Hanlon

All AUMT courses are under [CB000006422]

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

CPMT1403
Introduction to Computer Technology
(4 credits)

A fundamental computer course that provides in-depth explanation of the procedures to utilize hardware and software. Emphasis on terminology, acronyms, and hands-on activities. (3 lecture and 4 lab hours per week)

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).

CPMT 1449
Computer Networking Technology
(4 credits)

A beginning course in computer networks with focus on networking fundamentals, terminology, hardware, software and network architecture. A study of local/wide area networking concepts and networking installations and operations. (2 lecture and 4 lab hours per week).

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, Milton Clerc, Tom Magliolo

All CSCI courses are under [CB0000006021]

BCIS 1301
Microcomputer Applications
(3 credits)

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

ITSC 1401
Introduction to Computers
(4 credits)

Overview of computer information systems. Introduces computer hardware, software, procedures, and human resources. Explores integration and application in business and other segments in society. Fundamental of computer problem-solving and programming may be discussed and applied. Examines applications and software relating to a specific curricular area. (3 lecture and 4 lab hours per week)

ITSC 1409
Integrated Software Applications I
(4 credits)

Integration of applications from popular business productivity software suites. Instruction in embedding data, linking and combining documents using word processing, spreadsheets, databases, and/or presentation media software. (3 lecture and 4 lab hours per week)

ITSC 1422
Introduction to C Programming
(4 credits)

Introduction to programming using C. Emphasis on the fundamentals of structured design, development, testing, implementation, and documentation. Includes language syntax, data and file structures, input/output devices, and files. (3 lecture and 4 lab hours per week)

ITSE 1431
Introduction to Visual BASIC Programming
(4 credits)

Introduction to computer programming using Visual BASIC. Emphasis on the fundamentals of structured design, development, testing, implementation, and documentation. Includes language syntax, data and file structures, input/out devices, and files. (3 lecture and 4 lab hours per week)

ITSE 2449
Advanced Visual BASIC Programming
(4 credits)

Further applications of programming techniques using Visual BASIC. Topics include file access methods, data structures and modular programming, program testing and documentation. (2 lecture and 6 lab hours per week)

ITSW 1407
Introduction to Database
(4 credits)

Introduction to database theory and the practical applications of a database. (3 lecture and 4 lab hours per week)

ITSW 2437
Advanced Database
(4 credits)

Designed to provide an understanding of advanced functionality of databases. (3 lecture and 4 lab hours per week)

Horticulture (Ornamental)

Billy Sowa

All HORT courses are under [CB0000005026]

HALT 1401
Principles of Horticulture
(4 credits)

An overview of the horticulture industry, plant science, terminology, classification, propagation, environmental responses, and careers and opportunities in the field of horticulture. (1 lecture and 8 lab hours per week)

HALT 1422
Landscape Design
(4 credits)

A study of the principles and elements of landscape design. Topics include client interview, site analysis, plan view, scale, plant selection, basic drawing and drafting skills, and lan preparation. (1 lecture and 8 lab hours per week)

HALT 2402
Greenhouse Crop Production
(4 credits)

In-depth coverage of the production of crops within the controlled environment of a greenhouse. Topics include growing techniques, environmental control, crop rotation, scheduling, preparation for sale, and marketing. (1 lecture and 8 lab hours per week)

HALT 2408
Greenhouse Management
(4 credits)

Fundamentals of greenhouse construction and operation. Topics include architectural styles, construction materials, environmental systems and controls, growing media, fertilizers, post harvest handling, marketing, and business management. (1 lecture and 8 lab hours per week)

HALT 2423
Horticultural Pest Control
(4 credits)

Examination of federal, state, and local laws and regulations governing the control of horticultural pests. Topics include procedures; methods; safety requirements; integrated pest management (IPM); and chemical, natural, and biological controls. (1 lecture and 8 lab hours per week)

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). [CB000006245]

**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 Trustees. Noncredit instruction includes lecture, laboratory, field exercises, workshops, seminars, and conferences.

Persons who have program and course ideas should contact the office of 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, Cardio Vascular Technology, Medication Aide, Nurse Aide, Re-Entry Nursing Update (Refresher Course), Phlebotomy, ACLS, PALS, are just a few of the programs included in this non-credit allied health curriculum. Call 281/756-3787 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, Law Enforcement, Office Occupations, Massage Therapy, Pharmacy Technology, Welding and Workforce Development are a few of the noncredit training areas.

SENIOR ADULTS

ACCESS (Alvin Community College Education & Senior Services), for persons 50 years of age and over, offers many courses, activities, and trips, as well as twice-a-month meetings with guest presenters and entertainment. Call 281/388-4685, the ACCESS Office, for more information.

COMPUTER TRAINING

A partial list of courses includes Introduction to Computers, MS Office, Intro to Internet, Home Page instruction, 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

Firearms Training and Conversational Languages 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 and Kids College 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

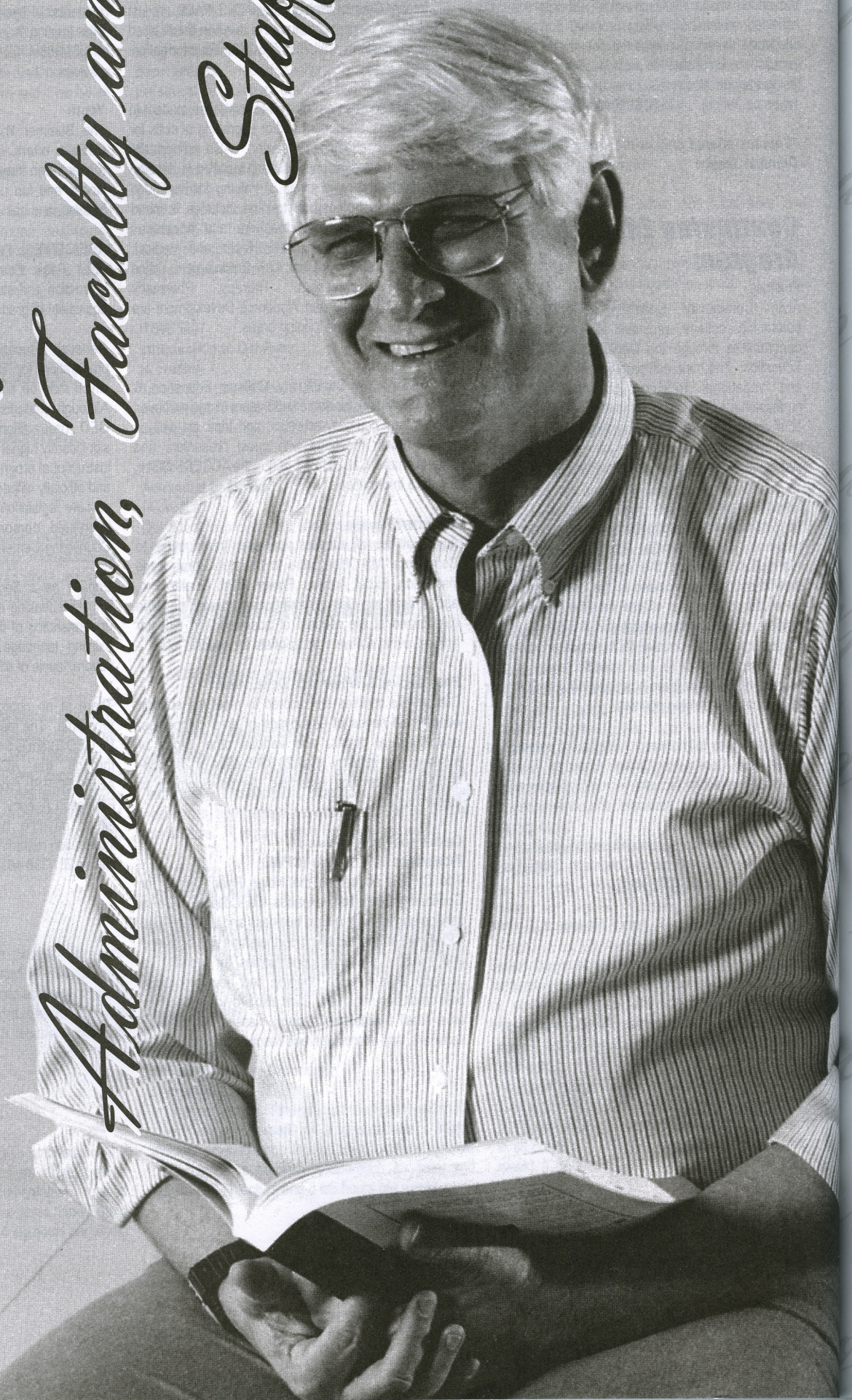
Adult Basic Education (ABE) is the fundamental instruction and study of materials and subject matter equivalent of grades 1 through 8.

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.

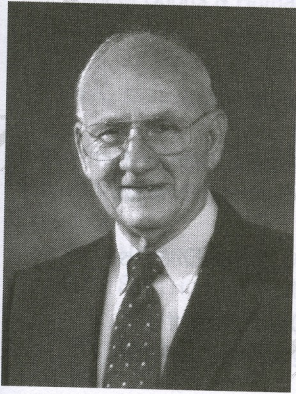
English as a Second Language (ESL) offers non-English speaking adults an opportunity to develop an understanding of the spoken language or to improve existing language skills. Classes are offered on several levels of difficulty.

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.

*Board of Trustees,
Administration, Faculty and
Staff*



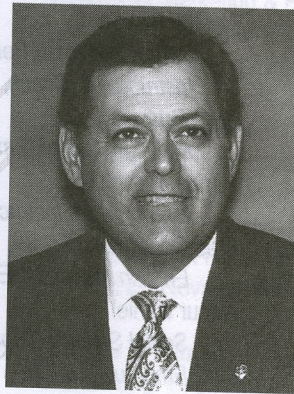
Alvin Community College Board of Trustees



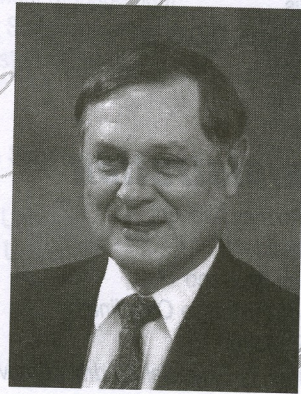
Doyle Swindell
Chairman



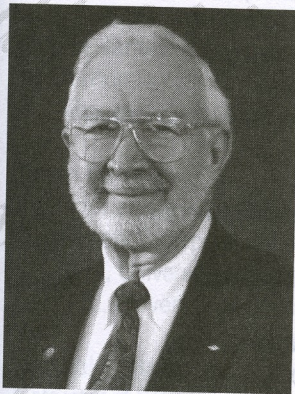
Brenda Brown
Vice Chairman



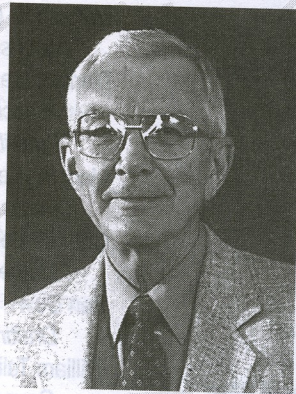
Bill Vela
Secretary



James B. DeWitt



Carl Ellis



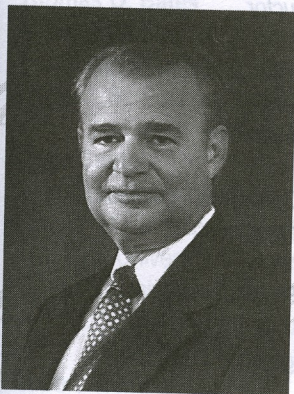
H.B. Jernigan, D.D.S.



Jerry Jircik



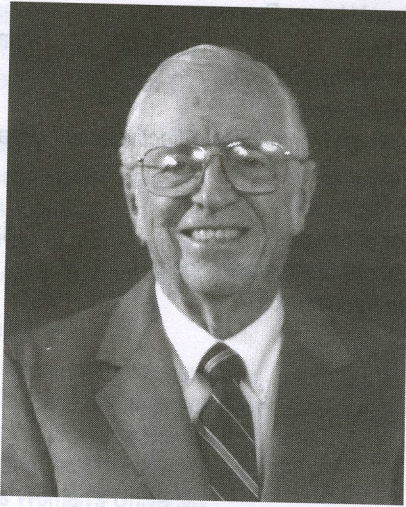
Ruth Ryan



A. Rodney Allbright
President

M.B. Ward
In Memoriam

Board of Trustees
Member 1974 - 2001



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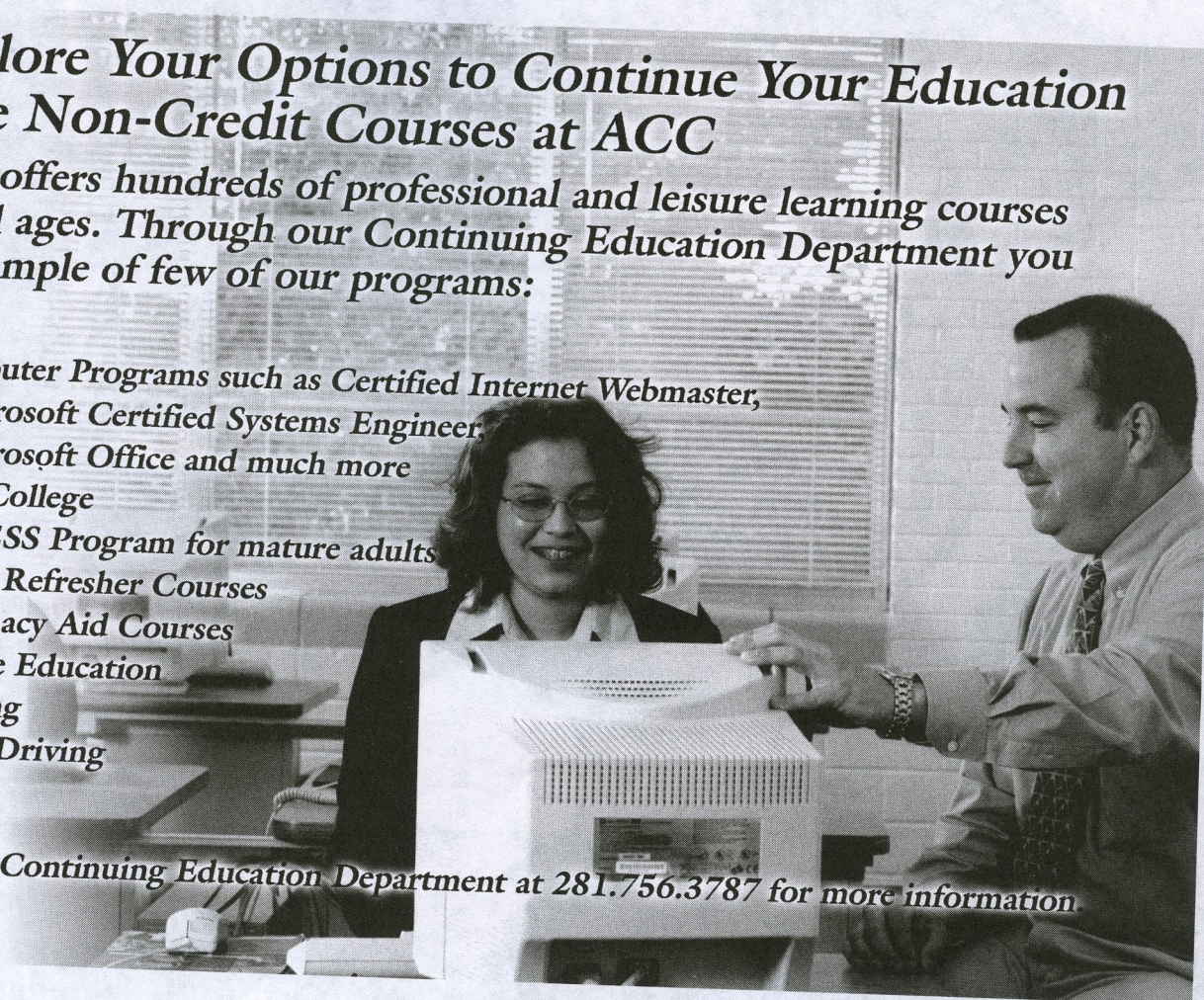
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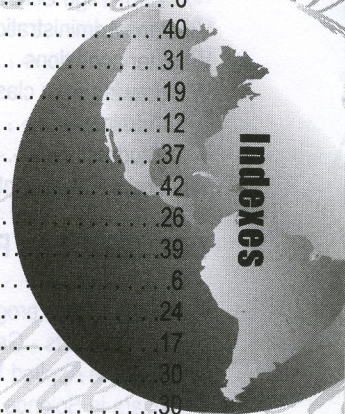
Indexes



GENERAL INDEX

Academic Calendar	2
Academic Regulations	
Attendance	28
Classification	26
Course load	26
Grade change	30
Grade reporting	29
Grading system	29
Suspension/probation	30
Academic Preparation	13
Accreditation	1, 8
Address Change	31
Admission	
Classification /Requirements	12
Testing	14
Specific curriculums	14
Adult Basic Education programs (ABE)	145
Advising	12
Athletic grants	40
Athletics	42
Attendance	28
Audit Registration	25
Bookstore	42
Cafeteria	41
Campus phone listing	10
Career & Transfer Center	37
Certificate list	34
Child Development Laboratory School	42
Class Schedules	25
College Store	42
Compliance statements	8
Concurrent Enrollment, tuition adjustment	25
Continuing Education programs	145
Core curriculum	20
Counseling Services	37
Course Load	26
Course Selection	17
Course Substitution	32
Credit-by-examination	19
Dean's list	30
Definitions of academic terms	35
Degrees	
Associate in Applied Science	34
Associate in Arts	33
Associate in Arts - General Studies	33
Associate in Science	33
Developmental courses	31
Disabilities, Student Services	38
Evaluation of previous education	18
Extra-curricular activities	42
Facilities	7
Faculty/Administrative/Professional Staff List	148
Financial Aid programs	39
Financial assistance	38
Fitness Center	42
Full-time student	26

GED programs	145
Grade	
Change	30
Point Average	29
Reporting	29
Grade Point Value	29
Graduation	
Course waiver/Substitution	32
Honors	32
Policy	32
Requirements	32
Under a particular catalog	32
Grievance Procedure	31
Guarantee, Educational	32
Hazlewood Act	40
Health insurance	42
History of ACC	6
Honors	
Academic	30
Graduation	32
Honors Program	14
Institutional goals	7
International student regulations	18
Interpretation of catalog	9
Job placement service	41
Learning Lab	41
Library	41
Loans, Federal Education	39
Loans, Short-term	41
Merit List	30
Mission of ACC	6
Music grants	40
Name change	31
Non-traditional education	19
Official Records	12
Orientation for new students	37
Parking	42
Part-time student	26
Pell Grants	39
Philosophy of ACC	6
Physical activity requirement	24
Placement regulations	17
Presidential Scholar	30
Probation	30
Refund policy	25
Withdrawing from classes	26
Schedule changes	26
Timetable (schedule)	26
Registration	25
Requirements for Transfer Students	25
Residence	
Change of classification	16
Classification	16
Schedule changes	25
Scholarships	40
Second degree or certificate	34
Senior citizen registration	25
Short-term loans	41
Special needs services	38

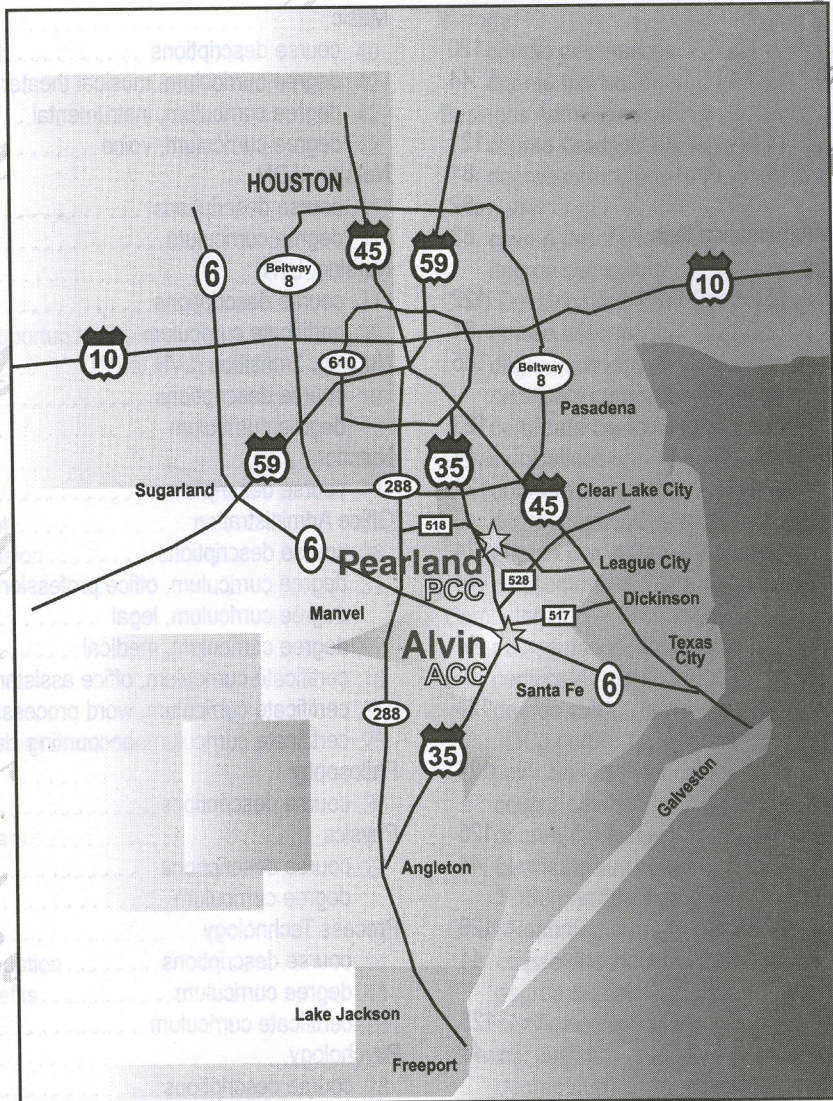
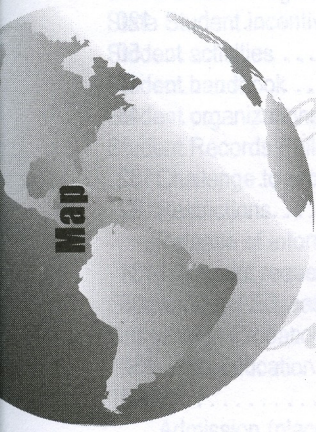


Stafford Loan Program	38	Biology	
State Student Incentive Grant	40	course descriptions	109
Student activities	42	degree curriculum	53
Student handbook	42	Business Administration	
Student organizations	42	course descriptions	109
Student Records Policies		degree curriculum	54
Challenge to records	31	Chemistry	
Restrictions	31	course descriptions	110
Release of information	30	degree curriculum	55
Transcript request	31	Child Development/Early Childhood	
Supplemental Educational Opportunity Grant	39	course descriptions	110
Suspension/Probation	30	degree curriculum	46, 57
Tech-Prep Education	19	certificate curriculum, 26 hour	59
Testing		certificate curriculum, 35 hour	58
Admission (placement)	14	Communications	
TASP	14	course descriptions	112
Texas Public Education Grant	39	degree curriculum, radio tech prep	59
Texas Rehabilitation Commission	38	degree curriculum, TV tech prep	60
Transcript request	31	certificate curriculum	61
Transfer Student		Computer Repair Technology	
Admission	12	course description	121
Credit for coursework	18	certificate curriculum	66
Registration	25	degree curriculum	65
Tuition adjustment for concurrent enrollment	25	TDCJ certificate program	143
Tuition and Fees Schedule	26	Computer Science Technology	
Course-related fees	26	course description	113
Fall and Spring semesters	27	degree curriculum	62
Summer semesters	27	certificate curriculum	64
Tuition Rebate		TDCJ certificate program	143
Baccalaureate Degree	12	Court Reporting	
Early High School Graduation	14	course descriptions	114
Veterans Administration benefits	41	degree curriculum	66
Weather conditions	28	certificate curriculum	68
Withdrawing from classes	28	Criminal Justice	
Administrative	28	degree curriculum, correctional science	70
Student	28	course description	116
Workforce Investment Act	40	certificate curriculum	73
		tech prep options	70, 71
		degree curriculum, law enforcement & police admin	71
		certificate curriculum, correctional administration	72
		certificate curriculum, crime scene technician	73
		certificate curriculum, Basic Law Enforcement Academy	74
		Diagnostic Cardiovascular Sonography	
		course descriptions	117
		degree curriculum, echocardiography	75
		degree curriculum, vascular technology	77
		advanced technical certificates	78-80
		Drafting	
		course descriptions	119
		degree curriculum	80
		certificate curriculum	81
		Drama	
		course descriptions	120
		degree curriculum	46

EDUCATIONAL PROGRAMS

Associate in Arts program	44
Associate in Arts - General Studies program	52
Associate in Applied Science program	56
Associate in Science program	53
Certificate programs	57
Accounting course descriptions	108
Agriculture	
course descriptions	108
Anthropology	
course descriptions	108
Arts	
course descriptions	108
degree curriculum	45
Automotive	
TDCJ certificate program	143

Economics			
course descriptions	.....	120	
degree curriculum, (GLA)	.....	44	
Electronic Technology			
course descriptions	.....	121	
degree curriculum	.....	81	
certificate curriculum	.....	82	
certificate curriculum, Instrumentation tech	.....	83	
Emergency Medical Technology			
course descriptions	.....	122	
degree curriculum	.....	84	
certificate curriculum	.....	85	
English			
course descriptions	.....	123	
degree curriculum (GLA)	.....	44	
English for speakers of other languages	.....	124	
French			
course descriptions	.....	124	
degree curriculum (GLA)	.....	44	
General Liberal Arts			
degree curriculum	.....	44	
Geography			
course description	.....	124	
Geology			
course descriptions	.....	124	
German			
course descriptions	.....	125	
degree curriculum (GLA)	.....	44	
Government			
course descriptions	.....	125	
degree curriculum (GLA)	.....	44	
History			
course descriptions	.....	125	
degree curriculum (GLA)	.....	44	
Horticulture			
course description	.....	125	
TDCJ certificate program	.....	143	
Humanities			
course descriptions	.....	126	
degree curriculum (GLA)	.....	44	
Journalism			
course description	.....	126	
Legal Assistant			
course description	.....	126	
degree curriculum	.....	86	
certificate curriculum	.....	87	
Management Development			
course descriptions	.....	126	
degree curriculum	.....	88	
certificate curriculum	.....	90	
Mathematics			
course descriptions	.....	128	
degree curriculum	.....	55	
Mental Health			
course descriptions	.....	129	
degree curriculum	.....	90	
certificate curriculum	.....	91	
Music			
course descriptions	.....	120	
degree curriculum, musical theater	.....	50	
degree curriculum, instrumental	.....	47	
degree curriculum, voice	.....	48	
Nursing, ADN			
course descriptions	.....	132	
degree curriculum	.....	92	
Nursing, LVN			
course descriptions	.....	134	
certificate curriculum	.....	95	
Nursing, Transition (LVN to RN)			
course descriptions	.....	132	
degree curriculum	.....	94	
Nutrition			
course description	.....	135	
Office Administration			
course descriptions	.....	135	
degree curriculum, office professional	.....	97	
degree curriculum, legal	.....	98	
degree curriculum, medical	.....	100	
certificate curriculum, office assistant	.....	101	
certificate curriculum, word processing	.....	101	
certificate curriculum, accounting clerk	.....	102	
Philosophy			
course descriptions	.....	137	
Physics			
course descriptions	.....	137	
degree curriculum	.....	55	
Process Technology			
course descriptions	.....	137	
degree curriculum	.....	102	
certificate curriculum	.....	103	
Psychology			
course descriptions	.....	138	
degree curriculum (GLA)	.....	44	
Reading			
course descriptions	.....	138	
Respiratory Care			
course descriptions	.....	139	
degree curriculum	.....	104	
Sociology			
course descriptions	.....	140	
degree curriculum (GLA)	.....	44	
Spanish			
course descriptions	.....	140	
degree curriculum (GLA)	.....	44	
Speech			
course descriptions	.....	141	
degree curriculum (GLA)	.....	44	
Sports and Human Performance			
course descriptions	.....	141	
degree curriculum	.....	51	
Welding			
course descriptions	.....	144	
TDCJ certificate program	.....	143	



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.

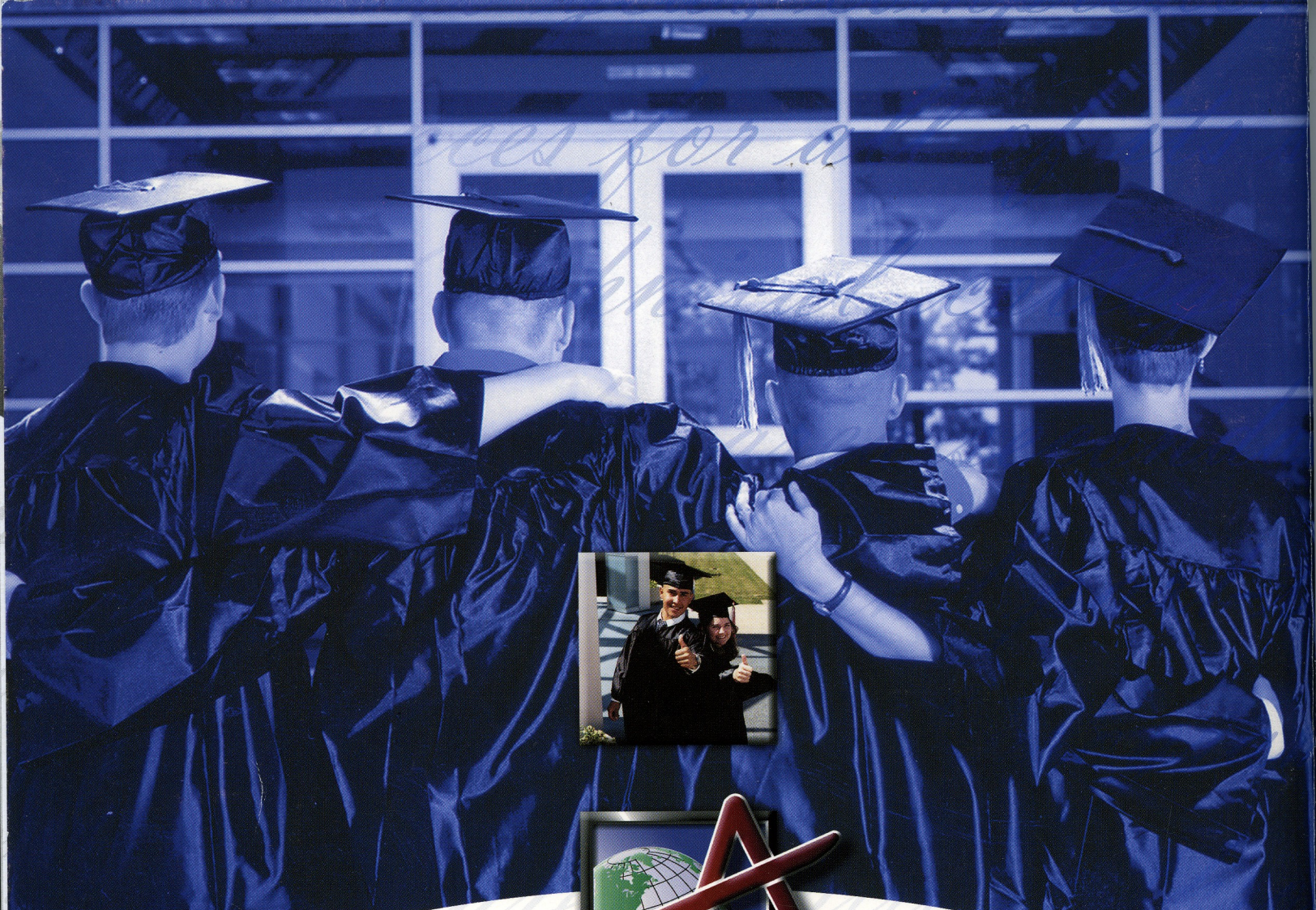
How to Reach Alvin Community College PEARLAND COLLEGE CENTER

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.



**Alvin
Community
College**

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