College Credit Course Descriptions

Statement on Florida's Statewide Course Numbering System

The course numbers appearing in the catalog are part of a statewide system of prefixes and numbers developed for use by all public post-secondary and participating private institutions in Florida. One of the major purposes of this system is to make transferring easier by identifying courses which are equivalent, no matter where they are taught in the state. All courses designated as equivalent will carry the same prefix and last three digits.

The classifying and numbering of courses was done by the University faculty members in each academic discipline. Their work was reviewed by faculty members in all of Florida’s post-secondary institutions, who made suggestions and changes to be incorporated into the system.

The course numbering system is, by law, descriptive, not prescriptive. It in no way limits or controls what courses may be offered or how they are taught. It does not affect course titles or descriptions at individual schools. It seeks only to describe what is being offered in post-secondary education in Florida in a manner that is intelligible and useful to students, faculty and other interested users of the system.

The course numbering system was developed so that equivalent courses could be accepted for transfer without misunderstanding. Each public institution is to accept for transfer credit any course which carries the same prefix and last three digits as a course at the receiving institution.

For example, if a student has taken SYG-000 at a community college, the student cannot be required to repeat SYG-000 at the school to which the student transfers. Further, credit for any course or its equivalent, as judged by the appropriate faculty task force and published in the course numbering system, which can be used by a senior student to satisfy degree requirements at a state university, can also be used for that purpose by a transfer student regardless of where the credit was earned.

It should be noted that a receiving institution is not precluded from using non-equivalent courses for satisfying certain requirements.

General Rule for Course Equivalencies

All undergraduate courses bearing the same alpha prefix and last three numbers (and alpha suffix, if present) have been agreed upon to be equivalent. For example, an introductory course in sociology is offered in over 40 post-secondary institutions in Florida. Since these courses are considered to be equivalent, each one will carry the designator SYG-000.

First Digit

The first digit of the course number is assigned by the institution, generally to indicate the year it is offered:

0 [EQ] college preparatory credit

1 [EQ] freshman year

2 [EQ] sophomore year

In the Sociology example mentioned above, one institution which offers the course in the freshman year will number it SYG 1000; a school offering the same course in the sophomore year will number it SYG 2000. The variance in first numbers does not affect the equivalency. If the prefix and last three digits are the same, the courses are substantively equivalent.

Titles

Each institution will retain its own title for each of its courses. The Sociology courses mentioned above are titled at different colleges "Introductory Sociology," "General Sociology," and "Principles of Sociology." The title does not affect the equivalency. The courses all carry the same prefix and last three digits; that is what identifies them as equivalent.

Equivalency of Sequences

In certain cases, sequences of courses in a given discipline are equivalent rather than the individual courses which make up these sequences. For example, MAC-132, 113, 134. In these cases the subject matter topics may not be taught in the same sequence, course by course, in several institutions; however, upon completion of the full sequence at any of the several institutions, students have completed substantially equivalent content. These sequences are clearly identified in the Course Equivalency Profiles.

Explanation of Prefixes and Numbers

Prefixes and numbers in the course numbering system are not chosen at random; they are designed to describe course content in an organized fashion within a classification system developed for each subject matter area.

Generally each of the major classifications in a discipline is represented by a three-alpha prefix. In some cases, one three-alpha prefix has been sufficient for the entire discipline. A discipline may use as many prefixes as necessary to accommodate its major classifications. The logic of the system allows it to be infinitely expandable with minimal disruption to existing numbers.

History, for example, has several prefixes: AH, African History; AMH, American History; ASH, Asian History; FUE, European History; HIS, History-General; IAH, Latin American History; and WOE, World History. All history courses in the state will carry one of these prefixes.

A more specific example is AMH 2422, (not a current course at this institution).
Exceptions to the Rule for Equivalencies

A. All numbers which have a second digit of 0 (Ex: ART 200) are "place keeper" numbers for such courses as directed independent study, thesis hours, etc. Courses with 900 numbers must be evaluated individually and are not automatically transferable.

B. All internships, practicums, clinical experiences and study abroad courses, whatever numbers they carry, are not automatically transferable.

C. Performance or studio courses in Art, Dance, Theatre, and Music are not automatically transferable but must be evaluated individually.

Statewide Course Numbering System

Course Prefix Titles Index

Listed below is an alphabetical index of the course Classification Discipline and the respective course three-digit Prefix. To identify the course Prefix, scan the alphabetical listing, locate the desired Classification Discipline, and then note the Prefix that distinguishes that specific discipline.

The course which Florida Community College at Jacksonville offers in that discipline can be ascertained by following the appropriate three-digit Prefix in the alphabetical listing of Course Descriptions in the following section of the Catalog.
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COURSE DESCRIPTIONS

COLLEGE CREDIT COURSES IN THIS CATALOG WITH THE (T) SYMBOL COUNT IN THE ASSOCIATE IN ARTS DEGREE AND ARE TRANSFERABLE TO THE STATE UNIVERSITY SYSTEM.

COLLEGE CREDIT COURSES IN THIS CATALOG WITHOUT THE (T) SYMBOL WILL NOT COUNT IN THE ASSOCIATE IN ARTS DEGREE. THE TRANSFERABILITY OF THESE COURSES IS DECIDED BY THE RECEIVING TRANSFER INSTITUTION.

All courses in the following list are not taught each term. Class schedules are published prior to each term that show the courses that will be offered. Many courses in this catalog have prerequisite courses listed in the course descriptions.

In the college credit course descriptions listed below, the course hours listed refer to the number of contact hours per week during a fifteen week semester. When a course is taught during a term which is shorter or longer than fifteen weeks, the number of contact hours per week is adjusted proportionately.

ACG — Accounting

ACG 1003 General Accounting I (T) 3 cr.
Prerequisite: None. This course is a study of the sole proprietorship form of business organization with an emphasis on the following topics: the accounting cycle, journalizing and posting, depreciation and fixed asset valuation, payroll accounting, the use of data processing in accounting with an emphasis on internal control, and an introduction to partnership and corporate accounting, including the basic characteristics and financial structures of these two business forms. The student must satisfactorily complete a practice set. Three contact hours.

ACG 1004 General Accounting II (T) 3 cr.
Prerequisite: ACG 1003. This course consists of a further study of proprietorship and corporation. Emphasis will be placed on the following topics: inventory valuation, depreciation and fixed asset valuation, payroll accounting, the use of data processing in accounting with an emphasis on internal control, and an introduction to partnership and corporate accounting, including the basic characteristics and financial structures of these two business forms. The student must satisfactorily complete a practice set. The satisfactory completion of ACG 1003 and ACG 1004 is equivalent to the completion of ACG 2001. Three contact hours.

ACG 2001 Principles of Accounting I (T) 3 cr.
This course consists of a study of the sole proprietorship form of business organization with an emphasis on the following topics: the accounting cycle, adjusting and correcting procedures, the worksheet, preparing financial statements, accounting for a merchandising operation, and a study of internal control, including the voucher system, petty cash and bank reconciliations. Other topics include payroll, inventory valuation, receivables and payables, accounting for non-current assets, and an introduction to partnership accounting. Students must satisfactorily complete a practice set. The satisfactory completion of ACG 1001 and ACG 1004 is equivalent to the completion of ACG 2001. Three contact hours.

ACG 2002 Principles of Accounting II (T) 3 cr.
Prerequisites: ACG 2001 or ACG 1003 and ACG 1004. This course is a continuation of ACG 2001 with coverage of the following topics: accounting for stocks, long-term liabilities, investments, the statement of changes in financial position and financial statement analysis. In addition, the course covers the study of managerial accounting including job order process and standard cost systems, variance analysis, budgeting, cost-volume-profit analysis, and capital budgeting. Three contact hours.

ACG 2100 Intermediate Accounting I (T) 3 cr.
Prerequisite: ACG 2001. This course is a continuation of accounting principles including a review of the accounting cycle with special attention given to working capital, a study of financial statements, cash, receivables, current liabilities, inventories, plant and equipment assets, and intangible assets. Three contact hours.

ACG 2101 Intermediate Accounting II (T) 3 cr.
Prerequisite: ACG 2100. This course is a continuation of ACG 2100 with coverage of the following topics: a study of corporate contributed capital, retained earnings and dividends, earnings per share, long-term debt and investments, pension plans and leases, accounting for income taxes, the statement of changes in financial position, and statement of cash flow. Three contact hours.

ACG 2102 Cost Accounting (T) 3 cr.
Prerequisite: ACG 2101. This course is a study of cost accounting with emphasis on cost-volume-profit analysis, job order cost system, and process cost system. Three contact hours.

ACG 2104 Fixed Accounting I (T) 3 cr.
Prerequisite: ACG 2100. This course is a study of accounting and analysis with emphasis on cost-volume-profit analysis, job order cost system, and process cost system. Three contact hours.

ADV — Advertising

ADV 2100 Advertising (T) 3 cr.
Prerequisite: None. This course is a study of advertising with emphasis on the principles and practices of advertising, including the planning, creative, media, and research aspects of the advertising process. Three contact hours.

AMH — American History

AMH 2100 United States History to 1865 (T) 3 cr.
Prerequisite: None. This course is a study of United States history to 1865, emphasizing the European background, Revolution, Articles of Confederation, the Constitution, problems of the new republic, sectionalism, manifest destiny, slavery and the War Between the States. Three contact hours.

AMH 2102 United States History from 1865 to Present (T) 3 cr.
Prerequisite: None. This course is a study of United States history from 1865 to the present, including the reconstruction, growth of big business, the agricultural revolution, the frontier experience, the American Indian, the progressive movement, the first World War and political, economic, and world affairs since World War II. Three contact hours.
AMH 2070 History of Florida (T)
Prerequisites: None. This course in the History of Florida emphasizes the explanations, U.S. acquisitions, Conquest of St. Joseph, Civil War and Reconstruction, and Florida's growth in the 20th century. Three contact hours.

AMH 2092 Afro-American History and Culture (From African Origins Through Reconstruction) (T)
This survey course deals with the trends, institutions, events, and personalities of black people in the American past, including a brief overview of the African origin, the development of slavery, the black people during the Revolutionary War, and the black people during the Civil War and Reconstruction. This course stresses the origins of racism, general minority problems, cultural appreciation, and black ideas. Three contact hours.

AMH 2093 Afro-American History and Culture (From World War I to the Present) (T)
This course is a non-sensational continuation of AMH 2092 with special emphasis on present and projected developments among black people. This course also includes the black people and their roles in social reform, as well as the roles and manifestation of the Civil Rights and Black Power movements. Three contact hours.

AML — American Literature

AML 2012 American Literature I (T)
Prerequisites: ENC 1102. This course is a critical study in selections from American Literature: Colonial period to the late 19th Century. Three contact hours.

AML 2023 American Literature II (T)
Prerequisites: AML 2012 and ENC 1102. This course is a critical study of selections from American Literature: Late 19th Century to the present. Three contact hours.

AMT — Aviation Management Technology

AMT 1811 Aircraft Airframe Mechanics
This course will provide instruction in theory, maintenance procedures, and safety precautions associated with aircraft airframe mechanics. Successful completion of the course will assist the student in preparing for the FAA licensing examination as an Airframe Mechanic. Three contact hours.

AMT 1812 Aircraft Powerplant Mechanics
This course will provide instruction in theory, maintenance procedures, and safety precautions associated with aircraft powerplant mechanics. Successful completion of the course will assist the student in preparing for the FAA licensing examination as an Airframe and Powerplant Mechanic. Three contact hours.

AMT 1814 Aircraft Airframe Mechanics Practicum
This course will provide instruction in theory, maintenance procedures, and safety precautions associated with aircraft airframe mechanics. Successful completion of the course will assist the student in preparing for the FAA licensing examination as an Airframe and Powerplant Mechanic. Eight contact hours. (Eight weeks).

AMT 1820 Aircraft Powerplants Mechanic
This course will provide instruction in theory, maintenance procedures, and safety precautions associated with aircraft powerplants. Successful completion of the course will assist the student in preparing for the FAA licensing examination as an Airframe and Powerplant Mechanic. Three contact hours.

AMT 1824 Aircraft Powerplants Mechanic Practicum
This course will provide instruction in theory, maintenance procedures, and practical application along with safety precautions associated with aircraft mechanics. Successful completion of the course will assist the student in preparing for the FAA licensing examination as an Airframe and Powerplant Mechanic. Eight contact hours. (Eight weeks).

ANT — Anthropology

ANT 2410 Cultural Anthropology (T)
Prerequisites: None. This course consists of the study of humanity, the concept of culture, and components of culture with emphasis on the differences of culture adaptations of humanity worldwide. Three contact hours.

ANT 2511 Physical Anthropology (T)
Prerequisites: None. This course consists of the study of humanity as a biological and cultural animal, including evolutionary adaptations and the human place in the ecological system. Three contact hours.

APA — Applied Accounting

APA 2351 Hotel/Restaurant Accounting
Prerequisites: ACG 1104. This course covers the fundamentals of accounting principles and procedures as they relate to hospitality properties. This course emphasizes controller functions, financial analysis, and financial statements. Three contact hours.

APA 2361 Credit Union Accounting
This course covers the principles of credit unions and the financial statements that are generated. Topics include accounting, financial statements, and financial analysis. Three contact hours.

APB — Applied Biology

APB 1159 Life In Ice: A Biological Environment (T)
Prerequisites: None. This course is an introduction to biological sciences, function, processes, principles, and concepts. This course fulfills the general education requirement. Three contact hours.

APB 1150L Biology Lab (T)
Corequisites: APB 1150. This course provides a student laboratory experience in the field of zoology. Three contact hours. Three lecture hours: Two laboratory hours.

APB 1266 Dental Assisting Anatomy and Physiology
This course provides an introduction to dental anatomy and physiology. Topics include the anatomy and physiology of the human body, with emphasis on the musculoskeletal, cardiovascular, and respiratory systems. Three contact hours. Three contact hours: Two lecture hours; One clinical hour.

APB 1260 Cardiovascular and Respiratory Anatomy and Physiology
This course provides an introduction to the cardiovascular and respiratory systems. Topics include the anatomy and physiology of the cardiovascular and respiratory systems. Three contact hours. Three contact hours: Two lecture hours; One clinical hour.

COLLEGE CREDIT COURSES

103
APB 1850 Pharmacology for the Respiratory Therapist (T) 3 cr.
Prerequisite: APB 1860. This course offers the student a detailed understanding and knowledge of the basic factors involved in the field of pharmacology for the respiratory therapist and the application of this field to pulmonary diseases. Four contact hours. Two lecture hours; two laboratory hours.

APB 290C Human Anatomy and Physiology I (T) 3 cr.
The student will benefit by taking CHM 1220, CHM 125C, APB 1350, HSC 2610C, 2020 10/10C, or High School Chemistry prior to enrolling in APB 290C. This course includes the gross morphology and physiological features of the human, including sections concerned with cells, tissues, the circulatory system, nervous, respiratory, digestive, and urinary systems. Four contact hours; two lecture hours; two laboratory hours.

APB 290D Human Anatomy and Physiology II (T) 3 cr.
Prerequisite: APB 290C. This course includes the circulatory system, the respiratory system, the excretory system, and fluid and electrolyte balance. Four contact hours; two lecture hours; two laboratory hours.

APB 290E Pulmonary Pathology (T) 4 cr.
Prerequisite: APB 290D. Pulmonary pathology gives an indepth study of the more common diseases of the cardiopulmonary system, including their etiology, pathophysiology, clinical picture and treatment. Four contact hours.

ARA — Arabic Language

ARA 1000 Conversational Arabic (T) 3 cr.
This course concentrates on the development of oral and conversational skills in the language. Communicative abilities and cultural patterns that influence everyday conversation will be included. Visual and auditory aids will be used; the student is expected to work independently in the Language Lab and with audio tapes. This course is designated for everyday use of the language; it will not fulfill the General Education foreign language requirements of the State University System. Three contact hours: one lecture hour; four studio hours.

ARC — Architecture

ARC 210C Architectural Drafting (T) 3 cr.
Prerequisite: ETSL 1100C. This course introduces residential design and planning and requires an original solution to a given residential concept. Students are required to prepare original drawings consisting of floor plans, elevations, wall sections, but are also required to produce large scale details from the original design. The emphasis of the course is on applied principles of architectural drafting and detailing. Four contact hours; two lecture hours; two laboratory hours.

ART HISTORY

Art

(Visual Arts) Lecture Courses

ART 1000 Art Appreciation (T) 3 cr.
Prerequisite: ENC 1101 or satisfactory score on placement test. This course supplies the non-art major with a foundation for understanding the visual arts through introduction to different media of art expression. This course includes reading and writing competencies. Three contact hours.

ART 2050 Art History I (T) 3 cr.
Prerequisite: ENC 1101 or satisfactory score on placement test. This course includes a historical and critical study of painting, sculpture, and architecture from prehistoric times to the Renaissance. This course includes reading and writing competencies. Three contact hours.

ART 2051 Art History II (T) 3 cr.
Prerequisite: ART 2050. ENC 1101 or satisfactory score on placement test. This course is a continuation of the history and criticism of art from the Renaissance to the present. This course includes reading and writing competencies. Three contact hours.

ART Foundation Courses

Design

ART 1261C Design I (T) 3 cr.
This course is an introduction to the field of the visual arts through the study of the elements and principles of design. The course includes a variety of materials and techniques with emphasis on line, color, texture, form, and two-dimensional space organization. Six contact hours; two lecture hours; four studio hours.

ART 1262C Design II (T) 3 cr.
Prerequisite: ART 1261C. This course continues the study of the elements and principles of design. The course explores a variety of materials and techniques with emphasis on three-dimensional space organization. Six contact hours; two lecture hours; four studio hours.

Drawing

ART 1300C Drawing I (T) 3 cr.
The course emphasizes the basic discipline of drawing through the use of still life, landscape, and the figure. Six contact hours; two lecture hours; four studio hours.

ART 1301C Drawing II (T) 3 cr.
Prerequisite: ART 1300C. This course is a continuation of ART 1300C. Six contact hours; two lecture hours; four studio hours.

Studio Courses

Ceramics

ART 2100C Ceramics: Hand-Building I (T) 3 cr.
The student will benefit by taking ART 1300C and ART 1261C prior to enrolling in ART 2100C. This course introduces the basic methods of ceramic production in hand-building and glaze application. Six contact hours; two lecture hours; four studio hours.

ART 2111C Ceramics: Hand-Building II (T) 3 cr.
Prerequisite: ART 2100C. This course, a continuation of ART 2100C, emphasizes creativity and special problem solving. The course also includes kiln stacking and firing. Six contact hours; two lecture hours; four studio hours.

ART 2112C Ceramics: Wheel Throwing I (T) 3 cr.
Prerequisite: ART 2110C. This course introduces the basic methods of wheel throwing along with kiln stacking and glaze application. Six contact hours; two lecture hours; four studio hours.

ART 2113C Ceramics: Wheel Throwing II (T) 3 cr.
Prerequisite: ART 2112C, ART 2112C. This course is a continuation of ART 2112C. Emphasis is on perfecting the technique of wheel throwing and on creativity with ceramic sculpture. Six contact hours; two lecture hours; four studio hours.
ART 2110C Glass Exploration (T) 3 cr.
This course includes practice in the use of the nature of glazing techniques such as Molds and Sagittas, plus application and setting procedures. Six contact hours: two lecture hours, four studio hours.

Painting

ART 2510C Painting I (T) 3 cr.
Prerequisite: ART 1101C. This course introduces the student to basic oil painting techniques and color theory. Projects designed to lead the student toward more independent concepts, include standard subjects such as still life, landscape, portrait, and figure painting. Six contact hours: two lecture hours, four studio hours.

ART 2520C Painting II (T)
Prerequisite: ART 2510C or permission of instructor. This course, a continuation of ART 2510C, encourages students to plan independent projects, working within certain broad guidelines as to subject matter and technical approach. Individual interests and strengths are part of the planning program for each student. The course requires a certain specific number of paintings during this semester. Six contact hours: two lecture hours, four studio hours.

PHOTOGRAPHY

Photography

PGY 1101C Photography I (T) 3 cr.
This course is an introduction to the use of the camera, laboratory and materials, and methods and procedures for the creative application of individual expressions in photography. The course emphasizes color slide materials. Students must have a 35mm camera or equivalent. Materials fee $15. Six contact hours: two lecture hours and four studio hours.

PGY 1102C Photography II (T) 3 cr.
Prerequisite: PGY 1101C. This course, a continuation of PGY 1101C, emphasizes black and white and color processing. Materials fee $15. Six contact hours: two lecture hours, four laboratory hours.

ART

Printmaking

ART 2400C Printmaking I (T) 3 cr.
Prerequisite: ART 1400C or ART 1101C. This course consists of instruction in line etching, tone etching, intaglio printing, and relief printing. Six contact hours: two lecture hours, four studio hours.

ART 2401C Printmaking II (T)
Prerequisite: ART 2400C. This course, a continuation of ART 2400, presents a more detailed study of intaglio materials and techniques. With permission of the instructor, the student may request to take course twice for credit to a maximum of nine credit hours. Six contact hours: two lecture hours, four studio hours.

Sculpture

ART 2701C Sculpture I (T) 3 cr.
This course, designed for the beginning sculptor student, emphasizes modeling and casting techniques in materials such as clay and plaster. Material fees are $15. Six contact hours: two lecture hours, four studio hours.

ART 2702C Sculpture II (T)
Prerequisite: ART 2701C or permission of the instructor. This course, a continuation of ART 2701C, explores new and more advanced techniques and materials with individual projects encouraged. The student may repeat this course twice for additional credit to a maximum of nine credit hours. Materials fee $15. Six contact hours: two lecture hours, four studio hours.

Textiles

ART 1101C Crafts as an Element of Design (T) 3 cr.
This course provides an introduction to contemporary and traditional crafts includes weaving, basic silk screening, tie dye, block printing, and leathercraft. The student may elect to take this course for additional credit for up to a combined total of two semesters. Materials fee $15. Six contact hours: two lecture hours and four studio hours.

ART 1130C Textile Design (T)
This course is an introduction to textile processes. Subjects include silk screen printing, batik, tie dye, and block printing. Six contact hours: two lecture hours and four studio hours.

Weaving

ART 2113C Beginning Weaving (T) 3 cr.
This course is an introduction to fiber processes including loom techniques, primitive loom construction and weaving, and simple four-eight harness loom weaving. The course includes threading, winding, dyeing, finishing, andDTV. Six contact hours: two lecture hours and four studio hours.

ART 1133C Intermediate Weaving (T) 3 cr.
Prerequisite: ART 1101C or permission of the instructor. This course is an introduction to fabric processes and covers the student’s weaving vocabulary. Processes include double weave, supplementary weft techniques, pattern drafting, and color study. Six contact hours: two lecture hours and four studio hours.

ART 1136C Advanced Weaving (T) 3 cr.
Prerequisites: ART 1101C and ART 1133C or permission of the instructor. This course, designed for the experienced weaver who wants to investigate advanced processes and further skills, emphasizes the aesthetic handling of fibers. Six contact hours: two lecture hours and four studio hours.

ASC — Aeronautical Science

ASC 1101A History of Air Transportation/National Airspace System 3 cr.
This course is designed to present a chronological history of man’s conquest for flying, an overview of the problems underlying the National Airspace System, airspace allocation, safety of flight, accident analysis, new developments in navigation and ATC systems, economic, social and political impacts. Three contact hours.

ASC 2101A Aviation Weather 3 cr.
This course consists of fundamentals of aviation meteorology and its effects on aircraft and the Air Traffic Control System. Three contact hours.

ASC 1101A Federal Air Regulations/Legislation 3 cr.
This course is designed to familiarize students with the federal aviation regulations, contracts, insurance, liability, regulatory structures, and case law as relating to pilots, aircraft operations and Air Traffic Control. Three contact hours.
ASH — Asian History

ASH 2000 History of the Far East (T) 3 cr.
This course consists of the history of the Far East from early modern times with emphasis on China and Japan. Three contact hours.

AST — Astronomy

AST 1002 Introduction to Astronomy (T) 3 cr.
The student will benefit by taking High School Algebra or MAT 0024 prior to enrolling in this course. This is a general education course and is not intended for the student who is going major in astronomy or other sciences. The student will become acquainted with the solar system with emphasis on the sun, moon, and planets and the heavens, and the theories of the universe. The course will discuss the stars and planets relevant to the modern world. Three contact hours.

AST 102L Astronomy Laboratory (T) 1 cr.
Pre-requisite: AST 1002. This is a laboratory course which is intended to supplement AST 1002 Introduction to Astronomy. Students should have a working knowledge of mathematics at a level equivalent to MAT 0024. Students will observe the moon, planets, stars, and other objects in the sky using various types of apparatus and simple procedures for obtaining useful astronomical data. If the weather is unfavorable, the instructor will schedule indoor laboratory exercises. Two contact hours.

ATV — Aviation Technology Flight

ATF 1000 Basic Flight I 3 cr.
Pre-requisite: FAA Medical Certificate-Class III. This course consists of the instruction and flight training necessary for the student to accomplish a first solo flight in an airplane and to achieve a high degree of flying proficiency in basic flying maneuvers. The student will progress through the following stages: Pre-Solo Cross Country, Solo Cross Country, Private Pilot Certificate. Three contact hours: two lecture hours, two laboratory hours.

ATF 1000 Basic Flight II 3 cr.
This course is a continuation of ATV 1000 and consists of the instruction and flight training necessary for the student to complete the minimum requirements that will qualify the student to take the FAA Private Pilot Certificate flight test. In addition, the student is introduced to advanced-maximum performance and precision flying maneuvers. The student will progress through the following stages: Pre-Solo Cross Country, Solo Cross Country, Private Pilot Certificate. Review, Advanced Night Operation, Introduction to Advanced and Precision Maneuvers. Three contact hours: one lecture hour, two laboratory hours.

ATF 2201C Instrument Flight 3 cr.
Pre-requisite: FAA Private Pilot Rating. It is recommended but not required that the student have at least 50 hours of pilot flight time. This course consists of instruction and flight training in Instrument Flight Rules (IFR) operations. The student will learn the fundamentals of precision airplane attitude control by reference to flight instruments, radio navigation, and basic to cruise and descent procedures. Additionally, the student receives training in IFR approach and cross-country procedures. This course provides basic instruction for each type of instrument approach and missed approach procedures. Satisfaction of this course requires that the student pass the FAA Instrument Flight Check and be awarded an Instrument Rating. Three contact hours: one lecture hour, two laboratory hours.

ATF 2800 Advanced Flight 3 cr.
Pre-requisite: FAA Private Pilot with an Instrument Rating. This course consists of a review of the maneuvers and procedures required for the Private Pilot Certificate. The student will also receive instruction and flight training necessary to perform advanced maneuvers such as right turns, left turns, straight ahead, cross-wind landings, takeoffs, and other maneuvers required for a Commercial Pilot Certificate. The course also consists of instruction and practice in complex aircraft, a review of advanced maneuvers in a student pilot FAA flight check for a Commercial Pilot with an instrument rating. Three contact hours: one lecture hour, two laboratory flight hours.

ATT — Aviation Technology Theory

ATT 1100 Private Pilot Ground School 3 cr.
This course, consisting of classroom instruction in preparation for FAA Private Pilot Written Examinations, includes science of flight, airplane systems and instruments, weight and balance, and performance. Meteorology, physics of flight, navigation, radio navigation, air traffic control, and communications, Aircraft Information Manual, and Federal Aviation Regulations. Three contact hours.

ATT 1110 Commercial Pilot Ground School 3 cr.
Pre-requisite: FAA Private Pilot Certificate. This course, a preparation for FAA Commercial Pilot Written Examinations, includes weight and balance, airplane performance, air traffic control, navigation, and radio communications. The course concentrates on advanced flight computer, advanced meteorology, advanced VOR navigation, radio navigation, and commercial pilot federal aviation regulations. Three contact hours.

ATT 1120 Instrument Rating Ground School 3 cr.
Pre-requisite: FAA Private Pilot Certificate. This course, a preparation for FAA Instrument Pilot Written Examinations, includes airplane systems, weight and balance, flight management, and weather. The course concentrates on navigation, instrument flight, instrument flight, and instrument flight regulations. The course concentrates on advanced flight computer, advanced meteorology, advanced VOR navigation, radio navigation, and commercial pilot federal aviation regulations. Three contact hours.

ATT 1810 Instrument of the Air Traffic Controller 3 cr.
The course presents a factual look at the air traffic controller's language, tools, and techniques. Three contact hours.

ATT 2841 The Air Traffic Control Tower 3 cr.
The course provides a study of the operation of a control tower, visual separation techniques, and the inter-relationships of the control tower and the airport. Three contact hours.

ATT 2842 Approach Control 3 cr.
The course consists of the study of the operation of an approach control, tower and non-radar separation techniques, and the control of aircraft using various communications and other devices. Three contact hours.

ATT 2843 Air Route Traffic Control Center 3 cr.
The course consists of a study of the operation of an Air Traffic Control Center, the radar and non-radar separation techniques, and the interface of the center with the other centers. Three contact hours.

ATT 2844 Radar/Computer Interface 3 cr.
The course consists of the study of the impact of radar on the air traffic control system, the interface of the computer and computer in the computer/traffic interface. Three contact hours.
BAN 1101 The Banking Practice Series (T) 3 cr.

This course is a series of short orientation seminars at the entry level for new bank employees. In order to earn three credits, all three seminars must be completed. "Your Place in Banking" - This three-hour training session gives new employees information on the functions of various parts of a bank and the financial services offered by the commercial bank. "Your Personal Finances" - This three-hour training session gives new employees the best methods of managing their personal income and how to spend it, save it, and borrow against it. "Your Personal Image" - This one-and-a-half hour training session teaches new employees how to communicate their financial services to customers, telephone etiquette, and personal grooming. Three contact hours.

BAN 1103 Principles of Bank Operations 3 cr.

This course presents the fundamentals of bank operations from a descriptive point of view so that the beginning banker may view the chosen profession in a broad (and operational) perspective. The descriptive orientation is intentional since banking is increasingly dependent upon personnel who have the broad perspective necessary for career advancement. Three contact hours.

BAN 1109 Bank Letters and Repairs (T) 3 cr.

This course is for those bank officers, supervisors, and employees who desire to use written correspondence. Since bank letters are apparently public relations documents, all personnel should be familiar with the mechanical forms of bank letters but also with the psychological principles that help the letter writer achieve his objective. The course reviews letter forms, emphasizes fundamental principles underlying modern correspondence, and examines different kinds of bank letters. Three contact hours.

BAN 1210 Analyzing Financial Statements 3 cr.

This course consists of two main sections: Characterization of Financial Statements and Financial Statement Analysis. The first section serves as a useful tool of basic accounting principles for those students who have studied accounting; for those who have not, this section provides the maximum analogical background necessary for profitable study of financial statement analysis. Three contact hours.

BAN 1700 Financing Business Enterprise (T) 3 cr.

The student may benefit by taking ACG 1003 or ACG 2091 before enrolling in this course. This course emphasizes the difference between lending and investing, and the fact that investing in a corporation and financing a corporation are different aspects of the same subject. The course presents the material from the viewpoint of the corporate treasurer who must safeguard the financial health of the corporation. Three contact hours.

BAN 2206 Credit Administration 3 cr.

This course, directed toward the executive level, concerns credit analysis and forecasting. Students will study management techniques related to credit policy. The student will study methods of credit investigation and analysis, credit procedures, specific credit problems and practices, and general principles of credit. Three contact hours.

BAN 2411 Savings and Time Deposits 3 cr.

This course is a study of the historical development of savings institutions and an awareness of the basic, current function of the savings process to assess its importance in many other forms of financial savings. The course reviews various types of financial savings in order to describe the system as a mechanism for investment. Three contact hours.

BAN 2515 Money and Banking 3 cr.

Prerequisite: ECON 1010. This course examines the principal aspects of money and banking and emphasizes the basic monetary theory needed by the banking student to provide the student with knowledge for the particular job. The course is structured to relate the various parts of a bank to the financial services offered by the commercial bank. "Your Personal Finances" - This three-hour training session gives new employees information on the functions of various parts of a bank and the financial services offered by the commercial bank. "Your Personal Image" - This one-1/2 hour training session teaches new employees how to communicate their financial services to customers, telephone etiquette, and personal grooming. Three contact hours.

BAN 2511 Bank Public Relations and Marketing 3 cr.

This course covers the basic principles of public relations, both internal and external, and seeks to explain the role, the impact, and the importance of public relations to marketing. It presents an overview for all bankers in terms of what everyone in banking should know about the essentials of bank public relations and marketing. Three contact hours.

BAN 2712 Bank Management 3 cr.

This course presents new trends which have emerged in the philosophy and practice of management. The course will review principles of management, including new methods of management, with a working knowledge of banking management. Since new trends are being established as an effective management learning technique, the text introduces the use of cases as a new element. Three contact hours.

BCH — Biochemistry (Biophysics)

BCH 2010C Bioinorganic Chemistry for Allied Health Students (T) 4 cr.

Prerequisite: CHEM 1050C. This course is designed for those students in the Dental Hygiene Program or those students wishing to transfer into the University of Illinois at Urbana-Champaign. It includes a brief survey of inorganic chemistry, atomic structure, chemical elements, and some of the newer applications of this subject. The course covers basic principles and terminology in biochemistry. Six contact hours: three lecture hours; three laboratory hours.

BCN — Building Construction

BCN 1001C Building Construction (T) 3 cr.

This course introduces the student to materials and methods used in building construction. The course also includes an analysis and evaluation of their application in the construction of residential, commercial, and small industrial buildings. Three contact hours.
BCT 2151 Construction Contracting 3 cr.
Prerequisite: BCT 2113. This course is an in-depth study of the contractual relationship between the parties involved in building construction contracting. This course includes the identification of specific tasks, bonds, insurance, bidding, awarding, and subcontracting, types, and conditions. Two contact hours.

BCT — Botany

BCT 1010C Botany (T) 4 cr.
An evolutionary survey of the plant kingdom, this course emphasizes the principles which are applicable to all forms of plant life. Six contact hours; three lecture hours; three laboratory hours.

BCT 2153C Irrigation (T) 4 cr.
Prerequisite: BCT 1010C or permission of instructor. Survey of local, irrigation methods and local systems (south Florida), and development and evaluation of ornamental plants. Laboratory work will include field work including selecting and identifying vascular plants. Six contact hours: three lecture hours; three laboratory hours.

BSC — Introductory Biological Science

BSC 2010C Principles of Biology I (T) 4 cr.
This course, an introduction to the Principles of Biology, includes studies of cellular organization, genetics, evolution, and population dynamics. This course fulfills the general education requirements and the laboratory requirement needed by many students who plan to complete a four-year institution. Five contact hours; three lecture hours; two laboratory hours.

BSC 2011C Principles of Biology II (T) 4 cr.
Prerequisite: BSC 2010C. This course, a continuation of BSC 2010C, and recommended for science students transferring to a four-year institution. Focuses on the study of the systems of plants and animals and of the required laboratory experience using field and...
animal material to produce subject matter. Five contact hours; three lecture hours; two laboratory hours.

**BUL — Business Law**

**BUL 2113 Business Law I (T)** 3 cr.
This course, the basic principles of law as related to business, includes principles of law of sales, contracts, employment, real and personal property, bankruptcy, consumer protection, and environmental law. Three contact hours.

**BUL 2112 Business Law II (T)**
Prerequisite: BUL 2111. This continuing course in business law covers the legal principles involving agency, commercial paper, sales, debtor-creditor relationships, estates and insurance. Three contact hours.

**CCT — Criminology and Criminal Justice**

**CCT 1010 Introduction to Criminal Justice (T)** 3 cr.
The course provides an overview of the criminal justice system, its purpose and functions, the administration of justice, and the administration of criminal justice in the United States. Three contact hours.

**CCT 1020 Introduction to Criminal Justice (T)** 3 cr.
This course provides an overview of the criminal justice system, its purpose and functions, the administration of justice, and the administration of criminal justice in the United States. Three contact hours.

**CCT 1030 Introduction to Criminal Behavior (T)** 3 cr.
The course provides an overview of the nature and patterns of behavior in the criminal justice system. Three contact hours.

**CCT 1220 Criminal Law (T)**
Four cr.
This course covers the principles of law and administration of law enforcement, including the study of the system, the procedures and principles of law enforcement, and the classification and analysis of crimes and criminal acts. Three contact hours.

**CCT 1300 Introduction to Corrections (T)** 3 cr.
This course covers the history and functions of the correctional system. Three contact hours.

**CIT — Computer Information Technology**

**CIT 211C Computer Logic Circuits (T)** 5 cr.
Prerequisite: CET 211C. This course covers computer logic circuits and introduces the following topics: flip-flops and counters, registers, flip-flops, adders, multipliers, and computer memories. Three contact hours; two lecture hours; two laboratory hours.
CGS 1540 Introduction to dBASE III (T) 1 cr.
This five-week course introduces individuals to basic models and capabilities of standard database management systems packages. Data base rules and advantages will be explained. Experience within the course is centered around database programs that run on microcomputers. A series of data base application projects in dBASE II are designed to build familiarity with creation, loading, maintaining, and updating the data base. Completing data base queries and building data base reports are covered. This course does not include programming in a fourth generation data base language. Four contact hours: three lecture hours; one laboratory hour.

CGS 1541 Advanced dBASE III (T) 2 cr.
Prerequisite: CGS 1540; or working knowledge of dBASE III software. This ten-week course provides individuals with basic models and capabilities of standard data base management systems packages. Data base rules and advantages will be explained. Experience within this course is centered around data base programs that run on microcomputers. A series of data base application projects in dBASE III are designed to build familiarity with creation, loading, maintaining, and updating the data base. Completing data base queries and building data base reports are covered. This course includes programming in a fourth generation data base language. Projects in the course relate to construction on integrated business systems. Four contact hours: three lecture hours; one laboratory hour.

CGS 1570 Management Overview of Microcomputer Software 1 cr.
The five-week course is designed for management personnel who wish to gain an overview and experience with the kinds of software which can increase productivity in the business environment. The topical coverage includes word processing, electronic spreadsheets, data base management systems, business graphics, project management, and communications software. No previous experience with computers is necessary. Emphasis is placed on reviewing, evaluating, and discussing theoretical applications of software. Course participants will gain the knowledge and ability to select microcomputer software for business applications. Four contact hours: three lecture hours; one laboratory hour.

CGS 2020 Computer Concepts (T) 3 cr.
This course is an introduction to the computer. The course stresses computer literacy, emphasizing concepts of hardware and software including programming/demonstration on the Apple II and Apple IIe computers. The course includes a survey of the central processing units and its functional components, auxiliary storage devices and functions, input and output units, the program development process, programming languages, operating systems, and data communications. The course includes a demonstration of programming in machine language. Three contact hours.

CGS 2100 Advanced Microcomputer Business Applications (T) 3 cr.
Prerequisites: COP 1002 and CGS 1570; or equivalent work experience, and AGS 2001, or equivalent work experience. This course is a skills development course in which students present transactions, build files, maintain files, and produce reports on a microcomputer. Students work with software packages and input documents from which applications are implemented. Specific applications include: order entry, invoicing, accounts receivable, payables, purchasing, financial reporting, and projections using spreadsheets. Four contact hours: three lecture hours; one laboratory hour.

CGS 2190 Computer Aided Drafting and Design (T) 3 cr.
Prerequisites: ACC 2120C, CGS 2020, SCL 2149C. This course provides a study with a general understanding of Computer Aided Drafting and Design operations. The student will acquire a working...
knowledge of steps required for initiating commands to the CAD system using the keyboard and the stylus. The student will create drawings using various menus and will understand the system to create a facsimile of any current active drawing in the system. Six contact hours; two lecture hours; two laboratory hours.

CGS 2570 Data Base Management Concepts and Practices (3) 3 cr.
This course is aimed at familiarizing individuals with the basic models and capabilities of standard data base management systems (DBMS) packages. Data bases: their roles and advantages will be explored. Experience within this course is centered around data base programs that run on mainframes. The capabilities of the three major data models: hierarchical, network, and relational are covered. A series of data base application projects on microcomputers are designed to build familiarity with creating, loading, maintaining, and updating the data base. Conducting data base queries, and building data base reports also are covered. This course includes advanced programming in a fourth generation data base language. Four contact hours; three lecture hours; one laboratory hour.

CGS 2570 Microcomputer Application Software (T) 3 cr.
This course, intended for students with no previous experience in data processing, teaches students to work processing software, electronic spreadsheets, software data base software and business graphics software to solve common problems of the automated office. Four contact hours; two lecture hours; two laboratory hours.

CHI — Chinese

CHI 1009 Conversational Chinese (1) 3 cr.
This course concentrates on the development of oral and conversational skills in the language. Communicative habits and cultural patterns that influence everyday conversation will be included. Visual and auditory aids will be used, the student is expected to work independently in the Language Lab and with audio tapes. This course is designed for everyday use of the language: it will not fulfill the General Education foreign language requirements of the State University System. Three contact hours. (Unsupervised lab work)

CHM — Chemistry

CHM 1010 Introduction to Chemical Problem Solving (T) 2 cr.
Prerequisites: MAT 112 or satisfactory score on the algebra placement test. This course is for students who need more skill and experience with applications of the mathematics required in general chemistry. It is recommended for students with weak backgrounds in chemistry and applied algebra. Four contact hours.

CHM 1020 Chemistry for Liberal Arts (T) 3 cr.
The student will benefit by taking high school algebra or MAT 112 prior to enrolling in this course. This course, designed to meet the general education requirement for the non-science major, is designed especially for the student who wishes to gain an understanding of the fundamental nature of physical science from the chemical point of view. The treatment utilizes an approach to scientific concepts and methods, stressing and illustrating principles rather than merely listing phenomena. Three contact hours.

CHM 1030C Introductory Chemistry I (T) 4 cr.
Prerequisite: CHM 1020C. This course is a continuation of CHM 1020C with an introduction to organic chemistry. Six contact hours; three lecture hours; one one-hour laboratory.

CHM 1031C Introductory Chemistry II (T) 4 cr.
Prerequisite: CHM 1030C. This course is a continuation of CHM 1030C, with an introduction to organic chemistry. Six contact hours; three class hours; one three-hour laboratory.

CHM 1045C General Chemistry and Qualitative Analysis I (T) 4 cr.
Prerequisite: One year of high school chemistry and two years of high school algebra or grade of C or better in CHM 1031C. This course is designed to introduce the student to modern chemical concepts, including modern atomic structure and periodicity, chemical bonding, states of matter, gas laws and solutions. The laboratory work will be quantitative in nature, teaching accurate laboratory techniques. This course meets the first-year college requirements for those majoring in science, engineering, premedicine and pharmacy. Six contact hours: three lecture hours; one one-hour laboratory.
CIS 1421 Computer Systems Development
(with High Level Tools) (T) 3 cr.
Prerequisites: COP 1002 and CCS 2570, or equivalent work experience. This course surveys established and evolving methodologies for the development of business-oriented computer information systems. Students are exposed to an overview of the process, as structured approach to the definition of needs, creation of specifications, and implementation of new systems. Programming and fourth generation software tools are used to design and develop business systems. Four contact hours; three lecture hours; one laboratory hour.

CIS 2300 Command-Level CICS Programming 3 cr.
Prerequisites: COP 2120 and COP 2540. This course provides training in Customer Information Control Systems/Virtual Storage (CICS/VS/VS/VS), a general purpose data base and data communication interface between an operating system and the user. Emphasis will be on the operation of equipment in the Florida Community College at Jacksonville Data Center and the Data Processing Lab., including the Prime 4000 computer system. Students will become familiar with the operation of computer systems and special peripheral devices in other data processing shops. Eight contact hours: three lecture hours; five laboratory hours.

CIS 2321 Information Systems (T) 3 cr.
Prerequisite: COP 2540. This course, designed to introduce the student to the fundamental concepts in information systems, emphasizes current system documentation techniques through the use of both classical and structured techniques for describing process flows, data flows, data structures, file design, input and output design, and program specifications. The course also covers examples of applications and various types of processing systems including batch, on-line, and distributed systems along with an overview of the system development life cycle of an information system. Four contact hours: three lecture hours; one laboratory hour.

CJD 2310 Police Supervision 3 cr.
This introductory course, designed to acquaint future and present police supervisors with an understanding of the various functions of supervision, examines the supervisor's responsibilities and assignments. The general topical areas include techniques of working with people, communications, personnel selection and training, motivation, principles of organization and management, disciplinary methods, and performance ratings. Three contact hours.

CJT — Criminal Justice Technology

CJT 2100 Criminal Investigation I (T) 3 cr.
Criminal Investigation I covers general investigative principles and techniques used by law enforcement. This fundamental course in the most important phases of criminal investigation deals with the following branches of crime detection: methods of investigation, crime taking, report writing, handling the crime scene, interrogations, admissions and confessions, missing persons, undercover assignments, and such specific offenses as arson, narcotics, burglary, robbery, and forgery. Three contact hours.

CJT 2110 Criminal Investigation II 3 cr.
This Criminal Investigation I is an introduction to the scientific aspects of investigation known as criminalistics, with emphasis on crime scene techniques in specialized areas such as homicide. Special attention is devoted to acquiring students with modern scientific services available in the crime laboratory, including fingerprinting, ballistics, hair, fibers, and other material found at the crime scene. Three contact hours.

CMN — Computational/Numerical Methods

CMN 1053 Data Processing Mathematics (T) 3 cr.
Prerequisites: COP 1002, MAT 1052 or satisfactory score on the mathematics placement test. This course is for data processing majors and includes binary, octal, and hexadecimal numbers, fixed and floating point, computer codes, packed decimal arithmetic, the real number system, approximations, accuracy and precision, scientific notation, linear and non-linear equations and formulas, and logical and operations. Computer laboratory exercises will utilize demonstrations in various topics and techniques presented in the classroom. Four contact hours: three lecture hours, one laboratory hour.

COA — Consumer Affairs

COA 1100 Consumer Decisions 3 cr.
This course studies practical money management applied to the family with emphasis on expenditures for food, clothing, housing, transportation, and health care. The course includes a study of credit, retirement, taxes, consumer protection, and the consumer movement. Three contact hours.

COP — Computer Programming

COP 1010 Introduction to Programming and Algorithm Design (T) 3 cr.
Prerequisite: COP 1002. This introductory course for data processing majors introduces the fundamentals of computer usage, covering topics such as editor functions, file system use, and program compilation and execution. This course also introduces algorithm design using structured flowcharting and pseudocoding techniques. The programing language Pascal, introduced and used throughout the course, will supplement the theoretical foundations that are being built. Four contact hours: three lecture hours; one laboratory hour.

COP 1002 Introductory Computer Concepts (T) 3 cr.
This course, intended for individuals with no previous computing experience, includes the history of computers, a survey of how computers are used today, the basic components of computers and
COP 1160 RPL Programming (T) 3 cr.
Prerequisite: COP 1102. RPL (Report Programming Language) is a problem-oriented programming language designed expressly to obtain data from a single, or multiple, rules, perform calculations and table lookup as required and write reports and/or update files. Students will solve elementary problems of moderately complex business problems by (a) writing programs using RPL, (b) submitting programs for compilation and running on the College's computer system, and (c) thoroughly debugging programs until the output is perfect. Four contact hours: three lecture hours, one laboratory hour.

COP 1341 Introduction to UNIX Operating System 2 cr.
This ten-week course requires substantial lab time on microcomputers to learn about and apply to UNIX operating system fundamentals and commands that are necessary in a working environment. Students will review the basics of initializing diskettes and other software, using and manipulating files, managing, backup and recovery, sorting, and other operations. Operating systems topics include file systems, data communications, and establishing inter-process communications with microcomputers, minicomputers, and mainframes. Four contact hours: three lecture hours, one laboratory hour.

COP 2120 COBOL Programming (T) 3 cr.
Prerequisite(s): COP 1002 and COP 1000. COBOL is a Business Oriented Language as the programming language specifically designed to solve business problems. Students will solve elementary problems of moderately complex business problems by (a) writing COBOL programs, (b) submitting programs for compilation and running on the College's computer system, and (c) thoroughly debugging programs until the output is perfect. Four contact hours: three lecture hours, one laboratory hour.

COP 2121 Advanced COBOL Programming (T) 3 cr.
Prerequisite: COP 2120 or equivalent experience. COBOL (Computer Business Oriented Language) is a programming language designed to solve business problems. Students will solve moderately complex business problems by (a) writing COBOL programs, (b) submitting programs for compilation and running on the College's computer system, and (c) thoroughly debugging programs until the output is perfect. Four contact hours: three lecture hours, one laboratory hour.

COP 2130 PL/I Programming Language (T) 3 cr.
Prerequisite: COP 1000. This course includes the study and application of PL/I as applied to business operations. Included within the curriculum will be six weeks of application programming where the student will write and run programs on the College's computer system. Four contact hours: three lecture hours, one laboratory hour.

COP 2170 Programming in BASIC (T) 3 cr.
Prerequisite: COP 1002 or CS 2200 and one of the following: MTH 121, MTH 1400, MATH 1030. This beginning level computer course uses the BASIC (Beginner's All-Purpose Symbolic Instruction Code) language in an interactive environment. Students will solve a variety of problems drawn from the areas of business, engineering, mathematics, and simulation. Four contact hours: three lecture hours, one laboratory hour.

COP 2171 Advanced Programming in BASIC (T) 3 cr.
Prerequisite: COP 2170. This course provides training in advanced BASIC programming exclusively geared to microcomputers. Special emphasis is placed on string handling techniques, searching and sorting techniques, sequential access files, random access files, linked lists, scientific calculations, and graphics. Four contact hours: three lecture hours, one laboratory hour.

COP 22100 Programming FORTRAN (T) 3 cr.
Prerequisites: COP 1002 and one of the following: MTH 121, CMN 1005. This is a comprehensive study of a scientific programming language which is also used in business applications in batch/LOB processing environments. File manipulation, including disk, files, and efficient programming techniques, interactive programming and simulation are emphasized. Lab problems will include business, engineering, and scientific applications. Four contact hours: three lecture hours, one laboratory hour.

COP 22110 Introduction to Pascal Programming (T) 3 cr.
Prerequisites: COP 1000, or COP 1002 and MTH 1030. This course will cover the fundamentals of Pascal program development including algorithm design, program definition, coding, testing and debugging. Modularity will be learned, using program-defined functions and subroutines, in a small, easy-to-learn and read, and to encourage structured programming. It covers the programming language, data types and control structures and is adaptable to different computers. Students will develop Pascal programs to solve "real-world" problems. Four contact hours: three lecture hours, one laboratory hour.

COP 2300 Basic Assembly Language Programming (T) 3 cr.
Prerequisites: COP 1000 and CMN 1005. This course introduces basic concepts in computer programming using a low-level, machine-oriented language. It may also be referred to as BAL/360-370 Programming, Introductory ALG. or programming ALG. Students will analyze business problems involving sequential files: develop logic flowcharts; translate flowcharts into IBM System 360-370 DOS Assembler Language codes, ascribe job control statements to form a program deck, and test, debug, and document their computer solutions to business problems. Four contact hours: three lecture hours, one laboratory hour.

COP 2340 Data Management and Utility Programs (T) 3 cr.
Prerequisite: COP 1002. This course consists of a study of the functions of an accounting system, data processing and data base management systems. Four contact hours: three lecture hours, one laboratory hour.

COP 2610 Advanced Computing and Programming Systems (T) 3 cr.
Prerequisite: COP 2129 and proficiency in computer programming. This course will include the study of computer architecture, operating systems, and database, and data communication and programming languages with emphasis on teaching the student the use of basic programming languages and the use of utility programs as components of an application system to build and maintain a larger system. Topics include an introduction to data bases and data base management systems. Four contact hours: three lecture hours, one laboratory hour.

COP 2611 Operating Systems Concepts (T) 3 cr.
Prerequisites: COP 1002 and CSE 2370; or equivalent work experience. This course will include the study of computer architecture, operating systems, and data communication and programming languages with emphasis on teaching the student the use of basic programming languages and the use of utility programs as components of an application system to build and maintain a larger system. Topics include an introduction to data bases and data base management systems. Four contact hours: three lecture hours, one laboratory hour.

COP 2614 Microcomputer Operating Systems Concepts (T) 3 cr.
Prerequisites: COP 1002 and CSE 2370; or equivalent work experience. This course will include the study of computer architecture, operating systems, and data communication and programming languages with emphasis on teaching the student the use of basic programming languages and the use of utility programs as components of an application system to build and maintain a larger system. Topics include an introduction to data bases and data base management systems. Four contact hours: three lecture hours, one laboratory hour.

COP 2628 Computer Systems Design and Architecture (T) 3 cr.
Prerequisites: COP 1002 and CSE 2370; or equivalent work experience. This course will include the study of computer architecture, operating systems, and data communication and programming languages with emphasis on teaching the student the use of basic programming languages and the use of utility programs as components of an application system to build and maintain a larger system. Topics include an introduction to data bases and data base management systems. Four contact hours: three lecture hours, one laboratory hour.
microcomputers, mainframes, and mainframes. Four contact hours; three lecture hours; one laboratory hour.

**CPO — Comparative Politics**

**CPO 2002 Introduction to Comparative Government (T) 3 cr.**
This course consists of a comparison of the institutions and the economic systems of capitalism and socialism associated with the political systems of specific countries. Three contact hours.

**CRW — Creative Writing**

**CRW 2000 Imaginative Writing (T) 3 cr.**
Prerequisite: EBC 1102. This course develops the student's capacity for imaginative writing in prose and poetry. The course includes critical discussion of student's work and of selected literary techniques and individual differences. Three contact hours.

**CTE — Clothing and Textiles**

**CTE 1310C Basic Clothing Construction (T) 3 cr.**
Prerequisite: CTE 1310C. This course covers the principles of fashion design, fashion construction, cutting, sewing, and finishing. Three lecture hours; two laboratory hours.

**CTE 1310C Advanced Clothing Construction (T) 3 cr.**
Prerequisite: CTE 1310C. This course covers the principles of fashion construction, pattern making, and advanced clothing construction techniques. Four contact hours: two lecture hours; two laboratory hours.

**CTE 1350C Tailoring I 3 cr.**
Prerequisite: CTE 1310C or the equivalent. This course, designed for the student who is interested in creating and designing clothing, will cover the principles of pattern making and tailoring techniques. Four contact hours: two lecture hours; two laboratory hours.

**CTE 1401C Basic Textiles (T) 3 cr.**
This course, a study of fabrics used for clothing and household furnishings, emphasizes fibers, yarns, constructions, and methods in the garment industry. Three contact hours: two lecture hours; two laboratory hours.

**CTE 1812 Introduction to Fashion Merchandising 3 cr.**
This course, an introduction to the clothing and textiles industry, includes the exploration of careers, opportunities, consumer behavior, historical development of fashion, the environmental factors that influence fashion demand, and the practices of fashion. Three contact hours.

**GTE 1825 Merchandising Mathematics and Buying Procedures 3 cr.**
Prerequisite: CTE 1812. This course covers the application of mathematical principles and techniques to the buying and selling of fashion products. Three contact hours.

**GTE 1840 Fashion Merchandising Product Information 3 cr.**
Prerequisite: CTE 1401C. This course provides students with the opportunity to acquire skill in analyzing fashion apparel and accessories for men, women, and children. This course emphasizes the quality of materials, construction, and design of merchandise in all price ranges. Students will also analyze selling methods for communicating the knowledge effectively to the consumer. In addition, the course will develop fashion vocabulary and consider consumer demands and trends. Three contact hours.

**GTE 2209 Wardrobe Planning and Updating (T) 3 cr.**
This course provides for the development of competence in planning and fitting a retail wardrobe for men and women. The course includes consideration of fashion trends, the application of basic fashion concepts, and analyzing the impact of fashion on the consumer. Three contact hours.

**DAA — Dance Activities**

**DAA 1000 Recreational Dance (T) 1 cr.**
This course consists of the introduction and practice of the basic dance skills for health and recreation. Course content includes round, folk, square, social, and current "teen-age" dancing. Two contact hours (activity).

**DAA 1340 Folk Dance (T) 1 cr.**
This course consists of the exploration and enjoyment of the folk dance traditions of America and the world. Two contact hours (activity).
DEA — Dental Assisting

DEA 1000 History and Jurisprudence of Dentistry 1 cr.
This course provides a knowledge of the Code of Ethics for dental assistants and the laws which govern the practice of dentistry. The student must have previous dental experience before taking this course. One contact hour.

DEA 1110 Science for Dental Assistants 3 cr.
This course, preceded by anatomy and physiology, includes Oral Pathology -- a knowledge of neonatal dental caries control and a familiarity with common periodontal disease; Pharmacology -- a knowledge of the drugs commonly used in the dental treatment; the responsibilities in the use of such drugs, and a knowledge of the standards set forth by the Food and Drug Administration of the Department of Health, Education and Welfare; first aid -- a knowledge of and ability to administer first aid treatment of common emergency situations which may occur. Three contact hours.

DEA 1820C Dental Assisting Expanded Duties 2 cr.
This course is designed to teach the dental assistant student expanded duties as permissible by the Florida State Dental Practice Act, will include new procedures as traditional expanded functions are certified by the Department of Professional Regulation, Board of Dentistry, (Chapter 246-16). This course also includes manipulation of dental materials utilizing dental assisting techniques. Three contact hours: one lecture hour; two laboratory hours.

DEA 2200 Office Management 3 cr.
This course develops the student's ability to receive and discuss patients, understand the behavior pattern of people, including potential attitudes, make appointments and maintain appointment book; communicate by telephone with patients and surgeons; respond to emergencies and patients with confidence; maintain medical records; maintain an efficient record and patient record file; keep books and records for tax purposes; do bookkeeping, write business letters and purchase and maintain supplies. Three contact hours.

DEA 2800C Clinical Practice I 5 cr.
This course provides the dental assisting student with a knowledge of chairside assisting, equipment and its installation, basic maintenance and care of equipment; a knowledge of names, design, use of, and the understanding of supervising agents for the proper care and maintenance of all instruments commonly employed in the dental office; the ability to select and prepare properly all instruments for operative, prophylactic, endodontic, orthodontic, and surgical procedures in accordance with instructions from the dentist; the ability to recognize properly the operative needs of the dentist and ability to properly manipulate a clear operating field. Eight contact hours: two lecture hours; one laboratory hour; one field hour.

DEA 2801C Clinical Practice II 5 cr.
Prerequisite: DEA 2800C. This course, a continuation of Clinical Practice I, consists of two hours of lecture, four hours of laboratory and eight hours of field experience covering clinical and chairside dental assisting skills. Fourteen contact hours: two lecture hours; four laboratory hours; eight field hours.

DEA 2802C Clinical Practice III 3 cr.
Prerequisite: DEA 2801C. This course, a continuation of DEA 2801C, consists of twelve hours a week of field experience in the dental specialties such as orthodontics, endodontics, and oral surgery. Twelve contact hours (field).

DEA 2805C Clinical Practice IV 5 cr.
Prerequisite: DEA 2802C. This course consists of 40 hours a week of clinical practice in the dental office in the field. This course encompasses all the functions performed by a dental assistant under the supervision of a dentist. Forty contact hours (field). This is a six-week course.

DEH — Dental Hygiene

DEH 1000C Principles of Dental Hygiene 5 cr.
Principles of Dental Hygiene is offered during the student's first term of the first year of clinical study, is a basic introductory course to reach the theories and practice in dental hygiene, and a prerequisite to Clinical Dental Hygiene I. Through lectures, demonstrations, laboratory and clinical experiences, and lab assignments, the student gains knowledge and comprehension of dental hygiene services, and a proficiency in coordination in technical skills necessary to prepare the student to begin preventive periodontic patient services the following semester. Eight contact hours: two lecture hours; six laboratory hours.

DEH 1800C Clinical Dental Hygiene I 6 cr.
Prerequisite: DEH 1000C. This course is a continuation of the Principles of Dental Hygiene. It is a didactic and clinical course comprised of lectures, laboratory exercises, and actual clinical experience on patients in the clinic. The purpose of this course is to provide the students with clinical hygiene practice for continuing refinement of technical skills and opportunities to gain experience in the use of dental hygiene education. This course will also include CBR. Ten contact hours: two lecture hours; eight clinical hours.

DEH 1801C Clinical Dental Hygiene II 8 cr.
Prerequisite: DEH 1800C. This course, a continuation of the practical application of the curricular and skills acquired in Principles of Dental Hygiene, DEH 1000C, and Clinical Dental Hygiene I, DEH 1800C, devotes care to providing oral prophylaxis care for patients, who present varying classifications of prophylaxis needs. The course emphasizes the continuing refinement of the techniques and skills in performing oral prophylaxis including Gracey curets in root planning, periodontal and dental charting, radiographic techniques and interpretations, dietary analysis, and efficiency care in the management of patients, including those with special needs. Sixteen contact hours.

DEH 2507C Dental Hygienists Expanded Duties 2 cr.
This course, designed to teach the dental hygiene students expanded functions as permissible by the Florida State Dental Practice Act, will include new procedures as traditional expanded functions are certified by the Department of Professional Regulation, Board of Dentistry, (Chapter 246-16). This course will also include manipulation of Dental Materials utilizing dental hygiene techniques. Three contact hours: one lecture hour; two laboratory hours.

DEH 2600 Periodontics 2 cr.
This course, designed to give the student a detailed study of the factors involved in periodontic pathology and its etiology, reviews in detail the anatomy, physiology, and histology of the periodontium. This course emphasizes diagnosis, prognosis, and treatment of patients with periodontal involvement, and management of patients returning for maintenance care. The course also teaches necessary and techniques for soft tissue curetage, periodontal dressing placement and removal, and sulcus replacement. Two contact hours.

DEH 2701 Community and Preventive Dentistry 3 cr.
This course incorporates the principles, practice, and data aids used in teaching preventive dentistry to the public field experience in elementary schools, public health centers, nursing homes and centers for the aged. Four contact hours: two lecture hours; two field hours.
DEH 2930 Dental Hygiene Seminar I 2 cr.
The course, designed to provide a more comprehensive content coverage in all specialties of dentistry, enables the dental hygiene student to become more cognizant of techniques and procedures in dentistry outside the pertinence of dental hygiene. The course consists of a discussion designed to assist the dental hygiene student to understand and appreciate the several aspects of dentistry to which dental hygiene services are closely allied. Two contact hours.

DEH 2931 Dental Hygiene Seminar II 2 cr.
Prerequisite: DEH 2930. Continuing DEH 2930, this course, designed to provide a study of professional ethics and commitments, professionalism, state dental practice acts, and the practical consideration of methods and problems associated with operating and maintaining a dental practice, emphasizes the dental hygiene student's role as a professional person in the community, in private practice, and as an integral part of the dental auxiliary team. Two contact hours.

DEP — Developmental Psychology

DEP 2004 Human Growth and Development (T) 3 cr.
The course consists of the study of the development of the individual through the life cycle, including child, adolescent and adult patterns of behavior, with attention to physical, intellectual, cognitive, personality, and social development. Three contact hours.

DEP 2102 Child Psychology (T) 3 cr.
Prerequisite: PSY 1012. This course consists of a developmental study of the normal child, from birth to the adolescent years. The course stresses practical applications with their implications for the parent and teacher, as well as for the evolving individual. Three contact hours.

DEP 2302 Adolescent Psychology (T) 3 cr.
Prerequisite: PSY 1012. This course consists of the study of human development in the adolescent years with emphasis on psychological problems. Three contact hours.

DEP 2401 Adult Psychology (T) 3 cr.
This course examines the physical, social, intellectual and personal characteristics of the human being during early, middle, and later adulthood. The course will investigate key events in adult life, such as marriage, choice of occupation, parenthood, and retirement, along with other developmental tasks and stages. Three contact hours.

DES — Dental Support

DES 1020C Oral Development 3 cr.
This course is a comprehensive study of head and neck anatomy, physiology and histology. Laboratory sessions will be coordinated to include the study of the human dentition and surrounding tissues. Four contact hours: two lecture hours; two laboratory hours.

DES 1100C Dental Materials and Laboratory 3 cr.
This course is a series of lecture-demonstrations designed to acquaint the dental hygiene student with the manufacture, proper manipulation, and application of the materials used in the laboratory and clinical practice of dentistry. The course also includes considerations of procedures for purchasing and storage of supplies. Four contact hours: two lecture hours; two laboratory hours.

DES 1220C Dental Radiology (Dental Assisting/Dental Hygiene) 3 cr.
The course, designed to teach the proper use of dental x-ray equipment, including radiation safety, in the taking, processing, and mounting of dental radiographs, both intra-oral and extra-oral, includes evaluation techniques, identifying landmarks, and deviations from the normal, and the filing of dental radiographs. Four contact hours: two lecture hours; two laboratory hours.

DES 2012 Oral Pathology 2 cr.
This course gives the student a detailed understanding and knowledge of the causes and mechanisms of oral disease, and normal and oral developmental anomalies. It refines this knowledge to the systematic physiology of the body. Two contact hours.

DES 2016 Pharmacology 2 cr.
This course gives the student a detailed study of the principles, characteristics, actions, reactions, and uses of anesthetics, drugs, medications, and preparations used to prevent, control and treat diseases. Two contact hours.

DIE — Dietetic

DIE 1100 Dietetic Seminar 1 cr.
This course includes a study of the role of dietetic personnel in health care food systems. This course also includes assigned problems in organization and management of dietary departments and trends in methods of food service in health care facilities. One contact hour.

DIE 1201 Therapeutic Nutrition 3 cr.
The student will acquire knowledge and skills in applying the principles of dietary modifications for specific physiological disorders. The course is closely related to the practices of local hospitals and extended care facilities. Three contact hours.

ECO — Economics

ECO 2000 Foundations of the American Economy (T) 3 cr.
This survey of the American economic system and its development guides the student in a practical examination of the contemporary operation of regulated capitalism in the United States. The course considers business organizations, the market system, gross national product, banking and finance, problems in employment, and various other aspects of the government's role in the national economy. Three contact hours.

ECO 2013 Principles of Economics I (T) 3 cr.
This course in macroeconomics presents the foundations of econom-
ic analysis, the theory of economic growth, development, and stabilization, current economic issues, and the monetary theory. Three contact hours.

ECC 2023 Principles of Economics II (1) 3 cr.
Prerequisite: ECC 2022 or consent of professor. This course in microeconomics is a summation of ECC 2021 and includes a study of the tools for economic analysis, the price theory of the market system, the theory of the firm, the theories of production and distribution and international trade. Three contact hours.

ECP — Economic Problems and Policies

ECP 1610 Understanding Community Economic Development (1) 3 cr.
This course consists of a study of the background and process of economic development, using the local community as a case study. This course concentrates on the range of problems facing cities today and explores various solutions to these problems. Three contact hours.

EDP — Education Foundations

EDF 1003 Introduction to Education (1) 3 cr.
This introductory course in education assists the student in understanding the American educational system in terms of its development and its present organization. The teacher is introduced to the problems and the rewards of the profession. Three contact hours.

EDG — Education General

EDG 2940 Observing and Recording Child Behavior (1) 6 cr.
Prerequisite: CHD 1220 and EEC 1201. This course, designed to increase the student's objectivity and proficiency in observing and interpreting children's behavior, provides for participating in supervised experiences with the children in the laboratory. This course includes lecture, observation, and participation facilities for the study of young children. Ten contact hours; two laboratory hours; six field hours.

EDG 2941 Supervised Student Participation (1) 6 cr.
Prerequisites: CHD 1230, EDC 2940, EEC 1201 and EEC 1202. This course consists of participation, under qualified supervision, in the Child Care Laboratory. Ten contact hours; two lecture hours; eight laboratory hours.

EDP — Educational Psychology

EDP 2002 Educational Psychology (1) 3 cr.
Prerequisite: PSY 1012. This course consists of an in-depth study of the relationships between social psychology and educational process which will lead to the establishment of proper teaching techniques and an understanding of personality dynamics of students. Three contact hours.

EEC — Education: Early Childhood

EEC 1001 Introduction to Early Childhood Education (1) 3 cr.
This course is an introduction intended to acquaint the student with basic principles involved in guiding the young child. The course also includes history of the field of early childhood, objectives of early childhood programs, parent and community involvement, minimum licensing standards, and job opportunities. Three contact hours.

EEC 1201 Overview of Early Childhood Curriculum (1) 3 cr.
Prerequisite: EEC 1001. This course acquaints the student with resources and basic principles involved in guiding the young child in the areas of music, art, language arts. The course also includes social studies, language development and lesson planning as related to the above curriculum areas. Three contact hours.

EEC 1202 Overview of Early Childhood Curriculum II (1) 3 cr.
Prerequisite: EEC 1001. This course, a continuation of EEC 1201, acquaints the student with resources and basic principles involved in guiding the young child in the areas of Mathematics, Science, and Movement Educations. Language Development and lesson planning as related to the above curriculum areas are included. Three contact hours.

EET — Electronic Engineering Technology

EET 1004 Fundamentals of General Electricity (1) 3 cr.
Designed for the non-electrical engineering technician to provide a general knowledge of electrical phenomena, this survey course at the electrical field covers both direct current and alternating current theory, as well as basic electrical elements. Three contact hours.

EET 1013C DC Theory and Circuits
Corequisites: MAC 1114. This course presents the study of the basic nature of electricity, covering atomic structure as related to current carriers, electrical units, and conversion within and between systems of units; current voltage, resistance, Ohm's Law. This course covers the analysis and design of steady-state electrical circuits. Typical units of instruction include: Sinusoidal Alternating Current, Phasor, Series and Parallel AC Circuits and Networks, Power, Transformer, Resonance, Frequency, and Alternating current Laboratory. The course is designed to give the student a basic understanding of electrical concepts. Three contact hours: three lecture hours; two laboratory hours.

EET 1025C AC Theory and Circuits
Corequisites: MAC 1116. This course includes the study of current forms of electric circuit with emphasis on the sinusoidal wave and the analysis of steady-state electrical circuits. Typical units of instruction include: Alternating Current, Frequency, Series and Parallel AC Circuits and Networks, Power, Transformer, Resonance, Frequency, and Alternating current Laboratory. The course is designed to give the student a basic understanding of electrical concepts. Three contact hours: three lecture hours; two laboratory hours.

EET 2119C Amplifier Circuits (1) 3 cr.
Prerequisite: EET 2121C. This course covers small signal and power electronic circuits. It also includes coverage of field-effect transistors and vacuum tube amplifier circuits as well as a comprehensive introduction to the basic principles of operation of solid-state (semiconductor) devices and circuits. It emphasizes an emphasis on amplifier circuits, power amplifiers, and bipolar transistors with particular emphasis on the design and testing of basic operational amplifier circuits. Four contact hours: two lecture hours; two laboratory hours.

EET 2111C Introduction to Solid State Electronics (1) 3 cr.
Prerequisites: EET 1013C, Precorequisites: EET 1025C. This course is designed for the non-electrical engineering technician to provide a general knowledge of electronic devices and circuits. It concentrates on integrated circuits and provides a broad coverage of operational amplifiers. In addition, the course includes digital feedback, Frequency Effects, and Voltage Regulation. Four contact hours: two lecture hours; two laboratory hours.

EET 2142C Linear Semiconductor Analysis (1) 3 cr.
Prerequisites: EET 2119C. This course is for the second year junior or senior student in electrical engineering. It concentrates on integrated circuits and provides a broad coverage of operational amplifiers. In addition, the course includes digital feedback, Frequency Effects, and Voltage Regulation. Four contact hours: two lecture hours; two laboratory hours.
EPT 2334C Communications Electronics I 3 cr.
Prerequisite: EET 210C. This introductory course in the specialized field of Communications Electronics includes the fundamental concepts of communications, communications circuits, and signal modulation. This course is intended for the student who has already acquired a solid foundation in electronics and desires to specialize in Communications Electronics. Four contact hours: three lecture hours; one laboratory hour.

EPT 2353C Communications Electronics II 3 cr.
Prerequisite: EET 214C. This course, a continuation of a two-course sequence in communications electronics, includes the transmission and evaluation of signals, transmission lines and antennas, telephone and video systems, and digital communications systems. Four contact hours: three lecture hours; one laboratory hour.

EFT 2940 Biomedical Practicum 3 cr.
Prerequisites: EFT 2142C, EST 2112, EET 2453C. This course, designed to provide the student with the essential electronic troubleshooting and clinical skills necessary in function as a competent biomedical equipment technician in a hospital setting, will be conducted at various local hospitals, and will consist of supervised device circuit analysis, troubleshooting and “on the job” training with practicing EMTs. Eight contact hours: all laboratory.

EGN — Engineering: General

EGN 1140C Descriptive Geometry 3 cr.
Prerequisite: ETU 1100. The course consists of theory and practice in solving graphing problems involving point, line, and space relationships. Four contact hours: two lecture hours; two laboratory hours.

EHD — Education: Hard of Hearing and Deaf

EHD 1000 Orientation to Deafness (T) 3 cr.
This is an introductory course in which the hearing, causes, and scope of deafness are considered with regard to its implications on personal, family, and community life. This course includes a historical review of the evolution of the hearing impaired and a review of the linguistic background, dialects and systems of sign language. Students will learn of referral sources and the various agencies on national, state and local levels which serve the hearing impaired. Language development studied will relate to deafness, hearing and auditory pathology. Three contact hours.

EHD 1400 Introduction to Interpreting (T) 3 cr.
Prerequisites: SPA 1336 and SPA 1337. Designed primarily to improve and refine interpreting skills through observation and practice, this course will offer students an opportunity to observe actual classroom interpreting, to participate in minimal interpreting duties, and to periodically review and refine techniques and speed in interpreting. Three contact hours.

EMS — Emergency Medical Services

EMS 1059 First Responders: Emergency Care Training 3 cr.
Designed especially for the non-medical person who wishes to learn basic life saving skills, this course provides the student with basic skills necessary to save a life, minimize patient discomfort and prevent further injury. Upon successful completion of this course, one is qualified in basic life support and prepared to enter EMS 1119, as prerequisite skills are part of the course content. This course may not be elective for students entering the AS or Certificate Paramedic program. Three contact hours.

EMS 1119 Fundamentals of Emergency Medical Care 6 cr.
Prerequisites: EMS 1059 or permission of professor. Corequisites: EMS 110L, ABP 2190C. This course, designed to prepare persons for initial employment as an EMT, includes current techniques practiced by a First-Level EMT providing emergency medical care. On successful completion of this course and the corequisite EMS 1119L, one is qualified to take the State Registry Examination for EMT Level I. Six contact hours.

EMS 1119L Fundamentals of Emergency Medical Care Clinical Experience 2 cr.
Corequisites: EMS 1119. This course consists of demonstrations of emergency procedures for life-threatening problems which will be practiced in the college laboratory. Clinical rotation in a local hospital emergency care facility is a requirement for this class. Four contact hours: three clinical hours; one laboratory hour.

EMS 2231 EMT-Paramedic Phase I 6 cr.
Prerequisites: EMS 110L, EMS 1119L, ABP 2190C. Corequisites: EMS 2231L, ABP 2191C. The first of a three-term sequence of instruction for the EMT Paramedic, includes the following: the EMT, Human Systems and Patient Assessment, Shock and Fluid Therapy, Respiratory System and Management of Emotional Stress. Six contact hours.

EMS 2231L EMT-Paramedic Phase I Lab/Clinical 3 cr.
Prerequisites: EMS 110L, EMS 1119L, ABP 2190C. Corequisites: EMS 2231L and ABP 2191C. The clinical program consists of a three-term sequence. This clinical program will include an emergency room and psychiatric in-hospital rotation. Laboratory and clinical application of experiences are a continuum of EMS 2231. Six contact hours: two laboratory hours; four clinical hours.

EMS 2232 EMT-Paramedic Phase II 6 cr.
Prerequisites: EMS 2231L, EMS 2231S, and ABP 2191C. Corequisites: EMS 2232L. This course is a continuation of EMT-Paramedic Phase I. The unit of study includes the following modules: the Cardiovascular System, General Pharmacology, Central Nervous System, Telemedicine and Communications. Five contact hours.

EMS 2232L EMT-Paramedic Phase II Lab/Clinical 3 cr.
Prerequisite: EMS 2231L. Corequisite: EMS 2232L. This course, a continuation of Phase I, will include emergency room rotation and an intensive care and critical care in-hospital rotation. Six contact hours: two laboratory hours; four clinical hours.

EMS 2233 EMT-Paramedic Phase III 4 cr.
Prerequisites: EMS 2232L, EMS 2232S. Corequisites: EMS 2233L. The last part of the three-term sequence of EMT-Paramedic instruction includes the following modules: Soft Tissue Injuries, Musculoskeletal System, Medical Emergencies, Obstetrics/Gynecologic Emergencies, Intubation/Bag Technique, Pediatric and Neonate Transport. Four contact hours.

EMS 2233L EMT-Paramedic Phase III Lab/Clinical 6 cr.
Prerequisites: EMS 2232L, EMS 2232S. Corequisite: EMS 2233L. The last part of the three-term sequence of clinical experiences requires riding a Mobile Intensive Care Unit and hospital rotation in a local surgical facility. Twelve contact hours: one laboratory hour; eleven clinical hours.

ENC — English Composition

ENC 0002 Introduction to Composition (College: Preparatory Course) 3 cr.
ENC 0002 is an introductory course in composition designed to
help students gain greater proficiency in basic writing skills. The course assesses the level at which students are writing to discover individual areas of weakness in writing skills and provides the necessary instruction to help them overcome these deficiencies. As a result of carefully planned learning experiences, the student should be able to move from adverbially developed, logically-organized, effective paragraphs which conform to the conventions of standard American English. This course includes integrated laboratory work. This course does not apply toward the associate degree and is part of College Preparatory Studies. Four contact hours, five contact hours, three lecture hours; two laboratory hours.

ENGL 1001 English Composition I (T) 3 cr.
Prerequisite: Satisfactory score on placement test. This course emphasizes the fundamentals of effective expression with emphasis on various forms of expository writing on logical and imaginative thinking and on reading for understanding. The course provides instruction in sentence structure, division, organization of short essays and correct usage of standard American English. This course includes writing compositions. Three contact hours.

ENGL 1002 English Composition II (T) 3 cr.
Prerequisite: ENGL 1001. As a continuation of ENGL 1001, this course includes study and practice in research writing and writing comprehensives. Three contact hours.

ENGL 1142 Introduction to Critical Writing (T) 3 cr.
Prerequisite: ENGL 1001. As an additional preparation for argumentation and research and for critical thinking, this course sharpens the student's critical thinking skills and improves their ability to compose analytical, interpretive, and evaluative essays in response to selected readings. This course is designed for students who have successfully completed ENGL 1001, but seek additional preparation for ENGL 1142. Thus, it is advised that successful completion of ENGL 1102 should not enroll in this course. Three contact hours.

ENGL 2210 Technical Report Writing (T) 3 cr.
Prerequisite: ENGL 1001. This is a communicative course giving primary emphasis to writing for the profession. The course places stress on the use of factual information in descriptive, analytical, and research technical reports. The course is designed for written technical and scientific research reports; developing graphs and illustrations; and presenting oral reports. Three contact hours.

ENGL — English Literature

ENGL 2013 English Literature to 1798 (T) 3 cr.
Prerequisite: ENGL 1002. This course introduces the major literary traditions from Beowulf through the restoration and Eighteenth century. It provides a study of the most characteristic writings of these periods. Three contact hours.

ENGL 2021 English Literature since 1798 (T) 3 cr.
Prerequisite: ENGL 1102. This course introduces the major literary traditions from the Romantic and Victorian periods to the present. It provides a study of the best and most characteristic writings of these periods. Three contact hours.

ENGL — English as a Second Language

ENGL 0101 ESL Speech — Level I (College Preparatory Course)
Prerequisite: CEIL score within the range of 30 - 50 and writing sample at Level I. Corequisites: ESL 0101, ESL 0141, ESL 0163, and ESL 0181. This course introduces the fundamentals of speech for

ESL 0121 ESL Reading — Level I (College Preparatory Course)
Prerequisite: CEIL score within the range of 20-30 and writing samples at Level I. Corequisites: ESL 0101, ESL 0141, ESL 0163, and ESL 0181. The purpose of the course is to instruct students in techniques for grasping sentence and paragraph meaning. Students will learn word meanings in context and will increase their vocabularies. They will develop skills in determining literal meaning with minimum use of their bilingual dictionaries. The course will focus on increasing reading comprehension. It will lead students through increasingly complex word passages to help them progress from literal meaning to critical reading and thinking. Further, it will provide opportunities, through reading, to understand important ideas and values in American Life. This course does not apply toward the associate degree and is part of College Preparatory Studies. Three credit hours, three contact hours.

ESL 0141 ESL Writing — Level I (College Preparatory Course)
Prerequisite: CEIL score within the range of 20-30 and writing samples at Level I. Corequisites: ESL 0101, ESL 0141, ESL 0163, and ESL 0181. The purpose of the course is to instruct students in techniques for grasping sentence and paragraph meaning. Students will learn word meanings in context and will increase their vocabularies. They will develop skills in determining literal meaning with minimum use of their bilingual dictionaries. The course will focus on increasing reading comprehension. It will lead students through increasingly complex word passages to help them progress from literal meaning to critical reading and thinking. Further, it will provide opportunities, through reading, to understand important ideas and values in American Life. This course does not apply toward the associate degree and is part of College Preparatory Studies. Three credit hours, three contact hours.

ESL 0161 ESL Structure — Level I (College Preparatory Course)
Prerequisite: CEIL score within the range of 20-30 and writing samples at Level I. Corequisites: ESL 0101, ESL 0121, ESL 0141, and ESL 0181. The purpose of the course is to instruct students in techniques for grasping sentence and paragraph meaning. Students will learn word meanings in context and will increase their vocabularies. They will develop skills in determining literal meaning with minimum use of their bilingual dictionaries. The course will focus on increasing reading comprehension. It will lead students through increasingly complex word passages to help them progress from literal meaning to critical reading and thinking. Further, it will provide opportunities, through reading, to understand important ideas and values in American Life. This course does not apply toward the associate degree and is part of College Preparatory Studies. Three credit hours, three contact hours.

ESL 0181 ESL Combined Skills — Level I (College Preparatory Course)
Prerequisite: CEIL score within the range of 20-30 and writing samples at Level I. Corequisites: ESL 0101, ESL 0121, ESL 0141, and ESL 0181. The purpose of the course is to instruct students in techniques for grasping sentence and paragraph meaning. Students will learn word meanings in context and will increase their vocabularies. They will develop skills in determining literal meaning with minimum use of their bilingual dictionaries. The course will focus on increasing reading comprehension. It will lead students through increasingly complex word passages to help them progress from literal meaning to critical reading and thinking. Further, it will provide opportunities, through reading, to understand important ideas and values in American Life. This course does not apply toward the associate degree and is part of College Preparatory Studies. Three credit hours, three contact hours.
speaking, and writing problems. Through their carefully structured tasks, teachers will systematically analyze and correct student errors in ways to promote personal growth and increased proficiency. The materials used to integrate the skills in this course will promote appreciation of the students' own cultures as well as an understanding of American customs and values. This course does not apply toward the associate degree and is part of College Preparatory Studies. Three credit hours, three contact hours.

**ESL 1201 ESL Speech - Level II (T)**

Prerequisite: CELT score within the range of 31-50 and writing sample at Level I or successful completion of ESL college-prep series.
Corequisites: ESL 1221, ESL 1241, ESL 1261, and ESL 1261. This course gives students practice in the usage of conversational and phonetic patterns in everyday communication. Students will participate in both listening comprehension and conversational patterns through individual and group presentations. Students will engage in exercises, short lectures, and conversations which will enhance their speaking and listening vocabularies, grammatical speech patterns, and oral comprehension. Three credit hours, three contact hours.

**ESL 1221 ESL Reading - Level II (T)**

Prerequisite: CELT score within the range of 31-50 and writing sample at Level I or successful completion of ESL college-prep series.
Corequisites: ESL 1201, ESL 1221, ESL 1261, ESL 1261, and ESL 1261. This course gives students practice in gaining increased reading speed and comprehension at both the literal and inferential levels. It will place emphasis on techniques of vocabulary development as well as techniques identifying basic forms of paragraph development. It will include activities which encourage students to further develop their oral and written proficiency in English. Three credit hours, three contact hours.

**ESL 1241 ESL Writing - Level II (T)**

Prerequisite: CELT score within the range of 31-50 and writing sample at Level II or successful completion of ESL college-prep series.
Corequisites: ESL 1201, ESL 1221, ESL 1261, and ESL 1261. This course gives students practice in writing unified, coherent paragraphs. Students will begin writing simple sentences containing key words. Practice will include spelling and punctuation. Students will then focus upon paragraph unity with practice in identifying and writing specific types of paragraph development. Three credit hours, three contact hours.

**ESL 1261 ESL Structure - Level II (T)**

Prerequisite: CELT score within the range of 31-50 and writing sample at Level II or successful completion of ESL college-prep series.
Corequisites: ESL 1201, ESL 1221, ESL 1261, and ESL 1261. This course gives students the opportunity to develop skill in the use of English grammar in basic patterns involving interrogative, declarative and exclamatory sentence. It emphasizes verb tenses, irregular parts of speech and indicated forms. Activities will involve oral and written exercises in sentence transformation, communicative interaction, controlled responses and dictation. Three credit hours, three contact hours.

**ESL 1281 ESL Combined Skills - Level II (T)**

Prerequisite: CELT score within the range of 31-50 and writing sample at Level II or successful completion of ESL college-prep series.
Corequisites: ESL 1201, ESL 1221, ESL 1241, and ESL 1261. The purpose of the combined skills course is to focus on the integration of the communication skills taught separately in ESL 1201, ESL 1221, ESL 1241, and ESL 1261. The students will participate in learning activities which promote spontaneous use of language in oral and written form. The students will develop personal strategies for analyzing and correcting their pronunciation, listening, speaking and writing problems. Three credit hours, three contact hours.

**ESL 1301 ESL Speech - Level III (T)**

Prerequisite: CELT score within the range of 31-70 and writing sample at Level III or successful completion of ESL 1200 series. Corequisites: ESL 1321, ESL 1341, ESL 1361, and ESL 1361. This course extends the practice of the principles and methods involved in oral communication. Students focus on purposeful and organized listening and speaking skills. Three credit hours, three contact hours.

**ESL 1321 ESL Reading - Level III (T)**

Prerequisite: CELT score within the range of 31-70 and writing sample at Level III or successful completion of ESL 1200 college-prep series. Corequisites: ESL 1301, ESL 1321, ESL 1341, and ESL 1361. Students learn to read materials that will increase their vocabulary, develop their critical thinking skills, improve their understanding of American culture, and prepare them for entrance into mainstream courses. The readings will not only instruct the students in comprehension techniques but also give instruction in various aspects of American culture. Various library resources will introduce the students to the campus library and teach them how to use the resources. Three credit hours, three contact hours.

**ESL 1341 ESL Writing - Level III (T)**

Prerequisite: CELT score within the range of 31-70 and writing sample at Level III or successful completion of ESL 1200 college-prep series. Corequisites: ESL 1301, ESL 1321, ESL 1341, and ESL 1361. This course reviews the various paragraph types. Students complete original paragraphs of narration, description, argumentation, and exposition utilizing their own vocabulary and main ideas and meeting the requirements of standard American English. The students also begin to explore the structure of the expository essay. Three credit hours, three contact hours.

**ESL 1361 ESL Structure - Level III (T)**

Prerequisite: CELT score within the range of 31-70 and writing sample at Level III or successful completion of ESL 1200 college-prep series. Corequisites: ESL 1301, ESL 1321, ESL 1341, and ESL 1361. This course focuses on using advanced grammatical patterns in the context of realistic situations. Students will review verb tenses and be able to perform written and oral transformations of complex English structure patterns. Three credit hours, three contact hours.

**ESL 1381 ESL Combined Skills - Level III (T)**

Prerequisite: CELT score within the range of 51-70 and writing sample at Level III or successful completion of ESL 1200 college-prep series. Corequisites: ESL 1301, ESL 1321, ESL 1341, and ESL 1361. The purpose of the combined skills course is to focus on the integration of the communication skills taught separately in ESL 1301, ESL 1321, ESL 1341, and ESL 1361. The students will participate in learning activities which promote spontaneous use of language in oral and written form. The students will develop personal strategies for analyzing and correcting their pronunciation, listening, speaking and writing problems. Through their carefully structured tasks, teachers will systematically analyze and correct student errors in ways to promote personal growth and increased proficiency. The materials used to integrate the skills in this course will promote appreciation of the student's own culture as well as an understanding of American values and customs. Three credit hours, three contact hours.
EST — Electronic Specialty Technology

EST 1412 Biomedical Technology and Techniques 2 cr.
Prerequisite: EET 1721. This course, designed to introduce the students to the hospital, biomedical equipment manufacturers, and the equipment, maintains organization, emphasizes the organizational structure of the hospital and identifies the role of the BMET within that framework. The course will also introduce students to the literature in professional journals covering areas of the BMET’s job, with particular emphasis on instrument circuitry, electrical safety standards, and new products. Finally, the course will utilize a system approach in analyzing how technology is applied in the health care setting, from the medical and administrative management viewpoints. Systems analyzed will include intensive care units, cardiovascular diagnostic laboratories and operating rooms. Two contact hours.

EST 2112 Electrical-Electronic Control Systems (T) 3 cr.
Prerequisite: EST 2115C. This course consists of the study of the operation and control of industrial equipment and processes including motors and the control systems involved in their operation and protection. Four contact hours, two lecture hours; two laboratory hours.

EST 2436C Biomedical Instrumentation I (T) 3 cr.
Prerequisites: CBT 2113C, EST 2119C. This course introduces students to the biomedical equipment used in patient vital signs measurement and monitoring, the equipment in which devices are used. Students will learn external operating characteristics of devices as well as internal circuitry. Students will use these concepts in verifying device performance, in performing necessary calibration, and in learning preventive and corrective maintenance techniques. Four contact hours: two lecture hours; two laboratory hours.

EST 2438C Biomedical Instrumentation II (T) 3 cr.
Prerequisite: EST 2436C. This course, a continuation of the study of biomedical instrumentation, introduces students to the biomedical equipment of significance typically utilized in the health care setting, i.e., in the operating room, the labor and delivery room, radiology, nuclear medicine, radiation therapy and clinical laboratory. Students will learn external operating characteristics of devices, their internal electronic circuitry and the clinical environment in which they are used. Students will utilize these concepts in the lab to verify device performance, to perform calibration and to learn preventive and corrective maintenance techniques. Four contact hours: two lecture hours; two laboratory hours.

EST 2693C Robotics (T) 3 cr.
Prerequisites: CBT 2424C, EST 2112, ETG 2534C, EMT 2510. This course covers the fundamentals of operation, construction, repair, and servicing of robots from the technician’s point of view. Along with the prerequisite courses, it prepares the technician to install and maintain robots and other related automated industrial equipment. Hands-on exercises with various robots in the areas of assembly, troubleshooting, and programming are required for each student. Four contact hours: three lecture hours; one laboratory hour.

ETC — Engineering Technology: Civil

ETC 2220C Soils and Foundations (T) 3 cr.
Prerequisite: ETC 2525C. This course covers the criteria used in the selection, design, and construction of the elements of a structure that transfer its total load to the underlying formations. Theoretical aspects considered and treated are analysis of subsoil conditions, bearing capacity and settlement analysis, character of natural soil deposits, earth pressure and retaining wall theory, and stability of slopes and subgrades. This course also covers the basic types of prevalent foundations, their design and behavior characteristics. Four contact hours: three lecture hours; one laboratory hour.

ETC 2410C Structural Drafting (T) 3 cr.
Prerequisites: ARK 2210C, ETD 2515. This course is a study of the required steel and concrete plans for buildings and the preparation of the shop details from these plans. Given the structural design of a building, the student prepares both the structural plan and the shop details necessary for the fabrication of the structural members. Four contact hours: two lecture hours; two laboratory hours.

ETC 2415C Concrete (T) 3 cr.
Prerequisite: EST 1421C. The course is a study of the fundamentals of concrete and its use as an engineering material. Topics included in the course are the design of concrete mixtures, use of admixtures, placement, special types of concrete, and the field-laboratory procedures used to achieve quality control. The course consists of lectures and laboratory. Four contact hours: two lecture hours; two laboratory hours.

ETC 2500C Highway Drafting and Route Design (T) 5 cr.
Prerequisites: ETC 2410C, ETC 2504C. This course is concerned with the elements of a transportation roadway and their functions, the effects of traffic and functions, the effects of traffic and vehicular characteristics on road design, length of roadway, curves and elevation of roadbeds, and workhorse computations applied to highway route design. Four contact hours: two lecture hours; two laboratory hours.

ETC 2521C Hydrology and Hydraulics (T) 3 cr.
Corequisites: ETC 2535C. This course is a study of sources, collection, drainage areas, stream water runoff and pump sizing. The subject matter includes the laws of fluid mechanics, such as fluids, energy and head, pressure flow in pipes and pumps, and liquid flow in open channels. Students use the laboratory time for fluid flow calculations and design. Four contact hours: three lecture hours; one laboratory hour.

ETD — Engineering Technology: Drafting

ETD 1100 Engineering Drawing (T) 3 cr.
This survey course consists of the principles and practices involved in making and reading engineering drawings, with emphasis on lettering, industrial symbolism, orthographic projection and multiview representation. Four contact hours: two lecture hours; two laboratory hours.

ETD 1706 Mechanical and Electrical Drafting (T) 3 cr.
Prerequisite: ETD 1100. This course places emphasis on assembly and detail drawings of mechanical parts. Also included in the course is an introduction to electrical drafting. Four contact hours: two lecture hours; two laboratory hours.

ETD 2515 Civil Drafting (T) 3 cr.
Prerequisite: ETD 1100. This course prepares the student for the fundamental concepts of civil drafting as it pertains to the field of civil engineering. Using surveyor’s notes, the student will demonstrate, in pencil and ink, drafting techniques essential in preparing topographic and geographic maps. The student will also draw plot plans using all appropriate symbols and terminology that are used in civil engineers’ offices. Four contact hours: two lecture hours; two laboratory hours.
ETG — Engineering Technology: General

ETG 1201C X-Ray Physics 3 cr.
Prerequisites: MAC 1194 and EET 1015C. The course includes coverage of those fundamentals of physics required to fully understand the nature of X-rays, how X-ray machines work, and how other modern devices are used to enhance information from X-ray equipment. The course also covers processing radiographs, image intensification, special radiographic methods, along with a study of radiation hazards and protection and a field trip to a medical diagnostic X-ray room. Four contact hours; three lecture hours; one laboratory hour.

ETG 2202C X-Ray Systems 3 cr.
Prerequisite: ETG 1201C. The course is centered on the practical application of principles in the laboratory where an X-Ray Unit Trainer (X-RTU) is used to learn to read schematic diagrams and to learn what functions X-ray machine subsystems perform. Components are arranged and connected on a "breadboard model" to gain experience in "hands-on" wiring and assembly of hardware and to learn the technique of relating the schematic diagram to the physical machine. The course also emphasizes film processing and X-ray safety along with the ethics required in medical X-ray equipment service. Six contact hours; three lecture hours; three laboratory hours.

ETG 2204C X-Ray Practicum 3 cr.
Prerequisite: ETG 2202C. This course provides the student with practical experience in the field of working side-by-side with service technicians of X-ray equipment vendors/representatives in real time service situations which develop within the local environment. In addition to developing skills in fault isolation, equipment repair, maintenance, service and calibration of medical diagnostic X-ray machinery, the course provides the opportunity to gain experience in service ethics and personal conduct as a professional service person. Six contact hours; one lecture hour; five laboratory hours.

ETG 2225C X-Ray Imaging Systems 3 cr.
Prerequisite: ETG 2202C. The course emphasizes the practical application of principles in laboratory experience and actual X-ray imaging systems. X-ray image intensifiers and closed circuit television monitors will be used to gain hands-on experience in proper installation, adjustment, calibration, troubleshooting and repair techniques. The student will analyze schematic diagrams of solid state and vacuum tube circuits to provide practical experience in relating technical information with the actual equipment in use. Six contact hours; three lecture hours; three laboratory hours.

ETG 2304C Engineering Mechanics 4 cr.
Prerequisites: MAC 1144, EET 1421C. This course is an introduction to the basic laws of mechanics and includes a study of force systems, momentum, couples, static equilibrium, centrifugal, friction, work, and energy. The laboratory portion of the course will emphasize the practical aspects of the above topics and will include exercises in measurements, drive systems, linkages, support members, etc. Five contact hours; three lecture hours; two laboratory hours.

ETG 2355C Testing and Strength of Materials 4 cr.
Prerequisite: ETG 2504C. This course is a study of the basic concepts involved in determining the resistance of engineering materials of various loads with emphasis on the applied use of various formulas for a systematic analysis. The laboratory portion of the course involves actual stress testing with stress testing equipment. Five contact hours; three lecture hours; two laboratory hours.

ETI — Engineering Technology: Industrial

ETI 1421C Engineering Materials and Processes (T) 3 cr.
This course examines the major engineering materials used in industry, metallic and non-metallic, in terms of their properties, forming processes used, and their engineering applications. Three contact hours.

ETI 1750 Industrial Safety (T) 3 cr.
This course imparts the knowledge essential to safe practices in industry. Included in the course are an examination of current industrial safety management methods and the major provisions of the Occupational Safety and Health Act. Three contact hours.

ETI 1725 Biomedical Safety and Terminology 2 cr.
Prerequisites: APD 2100C, EET 1025C. This course, designed to impart the knowledge essential to safe practices in the handling of biomedical patient-care devices, covers all aspects of regulations and guidelines as promulgated by the National Fire Protection Association (NFPA) and the Joint Commission on Accreditation of Hospitals (JCAH). The course provides training in medical terminology, with particular emphasis on applied anatomy and applied physiology. The students will gain proficiency in speaking, hearing, writing, and defining medical terms. Two contact hours.

ETI 1761 Industrial Supervision (T) 3 cr.
The purpose of this course is to prepare the student for a role in the world of work as the student assumes responsibilities leading toward supervisory positions and management. Three contact hours.

ETM — Engineering Technology: Mechanical

ETM 2221 Elements of Applied Energy 3 cr.
Prerequisites: MTH 1822, ETI 1421C. This introductory course in applied thermodynamic concerns of the study of the transformation of energy to useful work through mechanical elements: heat engines, I.C. engines, compressors, turbines, and molten equipment. Three contact hours.

ETM 2310C Fluid Mechanics (T) 3 cr.
Prerequisites: MAC 1144, ETI 1421C. This course is a study of the laws involving the flow of fluids and their application to the processes and equipment that are used in the energy-to-work transformation. The course emphasizes both hydraulics and pneumatics and the laboratory exercises concentrate on fluid power. Four contact hours; three lecture hours; one laboratory hour.

ETM 2610C Air Conditioning and Heating 3 cr.
Prerequisites: MAC 1144 and ETI 1421C. This introductory course to environmental control of buildings and houses emphasizes equipment performance and system design. Three contact hours.

EUH — European History

EUH 1000 Western Civilization through 1715 (T) 3 cr.
This course consists of a survey of the cultural beginnings of civilization and the diffusion and accumulation of culture through 1715: Ancient Egypt, Mesopotamia, Greece, Rome, Byzantium, Islam, the Medieval Period, the Renaissance, and the Protestant Revolt. Three contact hours.

EUH 1001 Western Civilization from 1715 to the Present (T) 3 cr.
This course, in modern western civilizations from 1725 to the present day, includes the developing capitalist system, absolutism, the Enlightenment, the era of revolutions. The Constitution of the
United States, the development of democracy, the industrial revolution, nationalism, the world wars, and the cold war. Three credit hours.

FAD — Family Development

FAD 1230 Dynamics of Modern Living (F) 3 cr.
This course studies the interpersonal relationship of personal and family problems. Analysis of the basic elements involved in marriage, motherhood, employment, care for the home, and all the activities that make up family life. The student will be able to conduct an intelligent conversation on the nature of the family and the basic facts of family life. Three contact hours.

FAD 1251 Parenting Your Child 3 cr.
Instruction in this course emphasizes skills and concepts that concerned parents of young children (ages 3-14) need. This course includes parent-child communication, self-concept and self-esteem development, discipline, cultivating among families, sibling interaction, intellectual and social development, and the societal influences impacting on children and parents. Three contact hours.

FAD 1252 Parenting Your Teenagers 3 cr.
Instruction in this course concentrates on helping parents of adolescents learn alternative strategies for communication, problem solving, and social interaction. Parents will learn the special needs of adolescents, conflict resolution, and analyzing the societal influences on parenting. Three contact hours.

FAD — Fire Fighting and Protection

FFP 1000 Introduction to Fire Protection 3 cr.
This course is a study of the fundamental and historical backgrounds of fire protection, the role and responsibilities of the fire service, the organization and function of federal, state, county, and local fire protection agencies; a review of municipal fire services, fire prevention principles, techniques of fire control, codes and ordinances; the problems of the fire administrator, and a survey of professional fire protection career opportunities. Three contact hours.

FFP 1100 Fire Service Organization 3 cr.
This course presents the principles of organization and administration in fire protection services; a study of company personnel management and training, fire equipment, communications, maintenance, budgeting, records and reports, insurance rating systems, and public relations. Three contact hours.

FFP 1110 Fire Company Supervision and Management 3 cr.
This course is a study of the structures and functions of a fire company in a community. Emphasis is placed on the duties and responsibilities of the company officer, including planning, training, records, and reports, and employee supervision. Three contact hours.

FFP 1205 Fundamentals of Fire Prevention 3 cr.
This course presents the structure and function of the fire prevention organization, the interpretation and application of code regulations, a study of the procedures and techniques of fire prevention, including inspection, surveying and mapping, recognition and elimination of fire hazards, the problems of public relations, and the coordination with other governmental agencies. Three contact hours.

FFP 2240 Fire Investigation 3 cr.
This course presents the principles of fire investigation: methods of determining the cause of fire origin, preservation, location and presentation of evidence, investigation of victims; arson detection, arson laws, case preparation and court procedures; and reports and records. Three contact hours.

FFP 2310 Fire Codes and Building Construction 3 cr.
This course includes the study of federal, state, and local laws applicable to the fire service; a survey of Fire Codes and Standards of the National Fire Protection Association and the Fire Prevention Code of the American Insurance Association; the role of the State Fire Marshall; the principles and practices used in building construction. Three contact hours.

FFP 2600 Fire Fighting Tactics and Strategy 3 cr.
This course covers the basic concepts involved in fire fighting, including fire behavior, size-up, attack principles, utilization of available manpower and equipment, and preplanning fire problems. Emphasis will be on developing thinking skills in relation to crises. Three contact hours.

FFP 2500 Flammable Hazardous Materials 3 cr.
This course presents the basic fundamentals of chemistry used in fire science; types of chemicals and processes; and hazards at federal, state, and local levels pertaining to use, storage, and transportation of chemicals. Also, topics covered include hazards of radioactive materials, precautions to observe in fighting fires involving hazardous materials, and laboratory demonstrations of incompatibilities. Three contact hours.

FFP 2524 Explosive and Toxic Hazardous Materials 3 cr.
This course, divided into two sections, deals with why materials explode, how they are made, and how they react with water, air, and each other. The second section explores toxicity. Three contact hours.

FFP 2600 Fire Fighting Equipment and Apparatus 3 cr.
This course covers the principles of pumping, construction and operation of pumps and pumping apparatus, driving and pumping practices, principles and operation of water supply, water supply, and related subjects. The course also includes the principles of the fire service, maintenance, and operation of fire department vehicles. Subjects covered include theory of internal combustion engines, power equipment, and maintenance, and other related principles of automotive vehicles. Three contact hours.

FFP 2660 Rescue Practices 3 cr.
This course includes instruction in life saving practices pertaining to the fire department and for rescue equipment. The course also covers the fire department's role in civil defense and other classes of chemical and disease that affect breathing. This course provides instruction for emergency response. Three contact hours.

FIL — Film

FIL 1000 The Movies as Art (T) 3 cr.
Prerequisite: ENG 1103 or satisfactory score on placement test. This general survey course examines the development of the motion picture as a universal art form in its historical and international background; theme and subject selection and script development; techno-
logical equipment and innovations; elements of visual composition, sound and music; acting and directing; and film criticism and analysis. This course examines the motion picture as a universal expression of man's varied cultures and expressive expressions. This course includes reading and writing competencies. Four contact hours (lecture/reviewing).

FIN — Finance

FIN 2000 Principles of Finance 3 cr.
Prerequisites: QMB 1001, ACC 1003 or ACC 2001, or consent of instructor. This course consists of the study of financial characteristics of stocks and bonds, securities market, introduction to securities analysis, commercial banks, and the federal reserve system, inflation, deflation, and the money supply; history and nature of money, and financial management. Three contact hours.

FIN 2100 Personal Finance (T) 3 cr.
This course is a study of economic and personal goals including personal budgeting, credit buying, borrowing money, banking facilities, the nature of investments, life insurance, casualty insurance, medical insurance, home ownership, stocks and bonds, and retirement plans. Three contact hours.

FIN 2360 Foundation and Structure of Credit Unions 3 cr.
This course contains the historical background and philosophy of the credit union movement and covers the structure and function of the credit union. The course emphasizes the need for ethical patterns and behavior and examines the relationships in the credit union and professionalism. Three contact hours.

FCS — Food Science

FCS 1201 Sanitation and Safety (T) 3 cr.
The student will explore the scientific rationale for sanitation and safety practices which are enforced for group protection in institutions and food service facilities. The student will identify causes of food-borne illnesses and demonstrate preventive techniques by adhering to sanitation standards. The course emphasizes methods of accident and fire prevention. Three contact hours.

FRE — French Language

FRE 1000 Conversational French (T) 3 cr.
This course concentrates on the development of oral and conversational skills in the language. Communicative habits and cultural patterns that influence everyday conversation will be included. Visual and auditory aids will be used; the student is expected to work independently in the Language Lab and with audio cassettes. This course is designed for everyday use of the language, it will not fulfill the General Education foreign language requirements of the State University System. Three contact hours (unsupervised lab work).

FRE 1100 Beginning French I (T) 3 cr.
This course consists of pronunciation, grammar, conversation, exercises, reading and composition through visual and auditory aids. Four contact hours; three lecture hours; one unsupervised laboratory hour.

FRE 1101 Beginning French II (T) 3 cr.
Prerequisite: FRE 1100. This course is a continuation of FRE 1100. Four contact hours: three lecture hours; one unsupervised laboratory hour.

FRE 2200 Intermediate French I (T) 3 cr.
Prerequisite: FRE 1101 or equivalent study. This course includes reading from modern and classical French authors, grammar review, and conversation. Four contact hours; three lecture hours; one unsupervised laboratory hour.

FRE 2201 Intermediate French II (T) 3 cr.
Prerequisite: FRE 2200. This course is a continuation of FRE 2200. Four contact hours: three lecture hours; one unsupervised laboratory hour.

FSS — Food Service Systems

FSS 1094 Orientation to Food Service Technology 3 cr.
The student will explore employment opportunities in the food service industry, including job opportunities in hospitals, extended care facilities, restaurants, hotels, motels, fast food operations and private clubs. The course emphasizes the analysis and the acquisition of educational and personal competencies required for job success. Three contact hours.

FSS 1100 Menu Design and Food Merchandising 3 cr.
The student will acquire knowledge and demonstrate skills in menu planning, costing and pricing menu items, and designing menu format. The course will utilize effective merchandising methods in food display, advertising, and interior decorating and emphasize positive public relations techniques. Three contact hours.

FSS 1120 Food and Beverage Purchasing 3 cr.
The student will acquire the fundamentals involved in purchasing food and beverages in quantity. The course emphasizes standardization, grading, selecting, receiving, and storing food and beverages, as well as the practical application in wiring specifications and in developing purchasing techniques. Three contact hours.

FSS 1202C Basic Food Preparation 3 cr.
The student will acquire knowledge and skill in the preparation of food including basic principles and techniques of food preparation, management of resources, use of recipes, use and care of equipment, and evaluation of food products. The course emphasizes safety and sanitation practices. Five contact hours: two lecture hours; two laboratory hours.

FSS 1221C Quantity Food Production 3 cr.
Prerequisite: FSS 1202C. The student will acquire the principles of quantity food preparation and service for cafeterias, restaurants, and institutions. The course will emphasize equipment use and care, standardized recipes, portion control, work plans and schedules. Five contact hours: two lecture hours; three laboratory hours.

FSS 1246C Baking 3 cr.
The student will acquire knowledge of the composition and properties of baking ingredients. The student will utilize the proper equipment and tools and standardized recipes to prepare yeast breads, rolls, pastries, and cakes in the food service laboratory. The instructor will evaluate the products prepared by established food service standards. Five contact hours: one lecture hour; four laboratory hours.

FSS 1248C Garde-Manger 3 cr.
The student will acquire knowledge and demonstrate skills in the application of special garde-manger techniques used in ice and cafeteria sculpturing. The class will observe chemistry in the proper use of tools to produce dinner and ice sculptured showpieces. Four contact hours: two lecture hours; two laboratory hours.

FSS 1250 Food and Beverage Service 3 cr.
The student will acquire knowledge of various types of service appropriate to coffee shops, during rooms, lunchrooms, banquets and buffets. The course will demonstrate the relationship of menu equip-
FSS 125 | Restaurant Operation | 3 cr.
This course includes the basic principles of analysis of food management problems, job analysis methods, selection, control, and supervision of personnel, facilities, layout, labor and food cost control, purchasing, legal problems, furniture and decor for clubs, restaurants and related institutions. Three contact hours.

FSS 1304 | Management Clinical Practice I | 3 cr.
The course consists of a supervised field experience in which the student will work on the job nine hours per week and apply course theories and skills based on quality control, including principles of food preparation, personnel management, sanitation and safety. Ten contact hours: one lecture hour; nine field hours.

FSS 1306 | Management Clinical Practice II | 3 cr.
Prerequisite: FSS 1304. Corequisites: FSS 1120 or FSS 2501. This course, a continuation of FSS 1304, consists of a supervised field experience in which the student will work on the job nine hours per week to develop and test competencies in management, food production, cost control, data processing, kitchen design, delivery systems and merchandising and promotion. The course emphasizes report analysis, evaluation, and accounting systems for the food service industry. Ten contact hours: one lecture hour; nine field hours.

FSS 1410 | Food Service Equipment/Facility Planning | 3 cr.
The student will evaluate and select the various types of food service equipment relative to cost, structure, function, and maintenance. The student will design and test layouts for food service operations to include equipment specifications, energy conservation measures, diversity of function, cost control and consideration toward future adaptability. Three contact hours.

FSS 2300 | Supervision and Personnel Management | 3 cr.
The student will develop and demonstrate skills necessary to the managerial procedures and functions of a food service operation. The course emphasis is on personnel selection, interviewing techniques, supervision, organization, and planning and evaluation. Three contact hours.

FSS 2301 | Food Service Delivery Systems | 3 cr.
The student will explore food service departments in the varied types of health care facilities and hospital food delivery systems operating in the United States and study their purpose, organization, need in society, general functions and staffing. The course will analyze and discuss facilities such as hospitals, nursing and rehabilitation centers, health maintenance organizations, private and public outpatient clinics and neighborhood health care centers. Three contact hours.

FSS 2302 | Management Clinical Practice III | 4 cr.
Prerequisite: FSS 2301. This course, a continuation of FSS 2301, considers a supervised field experience in which the student will work on the job 12 hours per week to develop and test competencies in employee selection, interviewing, training, evaluation, and budgeting. Thirteen contact hours: one lecture hour; twelve field hours.

FSS 2501 | Food and Beverage Control | 3 cr.
This course presents the basic principles and applications of effective food and beverage cost control, including food and beverage purchasing, receiving, and issuing; calculation of standards, production and planning; and departmental control. Three contact hours.

FSS 2945 | Food Service Internship | 9 cr.
The student will work on-the-job as an intern under the supervision of qualified personnel in food service establishments within the community. The student will apply course theories and skills in this work experience. The internship program requires a minimum of twelve weeks for a total of 450 hours. Thirty-two contact hours: one lecture hour; thirty-seven field hours.

GEA — Geography: Regional Areas | 3 cr.
This introductory course deals with humanity's relationship to the natural environment in the various climatic, regional, and economic areas of the world, and the interrelationships and problems of conservation of natural resources. Three contact hours.

GER — General Business | 3 cr.
This course, an introduction to business organization and procedure, enables the student to pursue more intelligently advanced business courses and to choose a business career. Three contact hours.

GEO — Geography: Systematic | 3 cr.
GEO 2370 Conservation of Resources (T) | 3 cr.
This survey course of natural and human resources of the world places special emphasis on the United States with an intensive study of the wise use and wasteful exploitation of these resources. Three contact hours.

GER — German and Germanic Languages | 3 cr.
GER 1000 | Conversational German I (T) | 3 cr.
This course concentrates on the development of oral and conversational skills in the language. Communicative habit and cultural patterns that influence everyday conversation will be included. Visual and auditory aids will be used; the student is expected to work independently in the language lab and with audio tapes. This course is designed for everyday use of the language, it will not fulfill the General Education component requirement of the School University System. Three contact hours: one supervised lab work.

GER 1100 | Beginning German I (T) | 3 cr.
This course consists of pronunciation, elements of grammar, simple conversation, exercises, reading, and composition with visual and auditory aids. Four contact hours: three lecture hours; one unsupervised laboratory hour.

GER 1101 | Beginning German II (T) | 3 cr.
Prerequisite: GER 1100 or equivalent. This course is a continuation of GER 1100. Four contact hours: three lecture hours; one unsupervised laboratory hour.

GLY — Geology | 3 cr.
GLY 101 | Earth and Space Science (T) | 3 cr.
Prerequisite: None. This course acquaints the student with the development of science, with the integrating principles and theories in the earth sciences, with the theories of the scientific method, and with a useful knowledge of selected areas of geology, astronomy, and meteorology. The course involves lectures, demonstrations, and films. The course is for general education and is not designed essentially as an introductory or preparatory course for any of the specific sciences. Three contact hours.

GLY 1010 | Physical Geology (T) | 3 cr.
The student will benefit by taking high school algebra or MAT
Gra 1500 Theory of Lithographic Processes 5 cr.
Corequisite: GRA 1502L. This laboratory course, designed to give an introduction to and experience in the basic skills of three of the major processes of the lithographic industry; includes process camera operation, negative stripping, and platemaking. 8 contact hours (theoretical/laboratory).

Gra 1504 Theory of Lithographic Processes 5 cr.
Corequisite: GRA 1500. This laboratory course, designed to give an introduction to and experience in the basic skills of three of the major processes of the lithographic industry; includes process camera operation, negative stripping, and platemaking. 8 contact hours (theoretical/laboratory).

Gra 1540 Layout and Design (T) 3 cr.
This course teaches the technique of preparing layouts to be used for customer approval and the preparation of camera-ready mechanicals of work ready to be printed. 3 contact hours.

Gra 1706 Graphic Arts Estimating (T) 3 cr.
This course uses the industry-accepted Franklin Printing Catalog to develop the basic technique of estimating the cost of printed matter and its production methods from layout to finished product. 3 contact hours.

Gra 2532L Hand and Machine Composition and Form Make-up 3 cr.
This course teaches the basic technique of setting type by hand and by Ludlow machine, form make-up (utilizing metal cutting devices), along with pulling reproduction proofs for offset printing. 6 contact hours (theoretical/laboratory).

Gra 2535l. Advanced Hand and Machine Composition and Form Make-up 5 cr.
Prerequisite: GRA 2532L. This advanced laboratory course provides for skill development in the technique of setting type by hand and by Ludlow machine, form make-up (utilizing metal cutting devices), and pulling reproduction proofs for offset printing. 12 contact hours (theoretical/laboratory).

Gra 2537l Cold Type Typesetting and Paste-up 3 cr.
Prerequisite: GRA 1504L. Corequisite: GRA 1540. This course teaches the basic techniques of setting type by strike-on and photographic typesetting equipment, and also the preparation of mechanical art forms. The course also includes pen ruling and machine forms. 6 contact hours (theoretical/laboratory).

Gra 2538L Advanced Cold Type Typesetting and Paste-up 5 cr.
Prerequisite: GRA 2537L. This advanced course provides for skill development in the techniques of setting type by strike-on and photographic typesetting equipment, and also the preparation of mechanical art forms. The course emphasizes the application of basic techniques toward greater job complexity, increased quality and increased productivity. 10 contact hours (theoretical/laboratory).

Gra 2571L Camera Operation and Film Processing 3 cr.
Prerequisite: GRA 1504L. Corequisite: GRA 1540. This course presents the techniques of operating the process camera for the reproduction of line and halftone copy negatives, contact printing, preparation of darkroom chemicals, and developing graphic arts films and papers. 6 contact hours (theoretical/laboratory).

Gra 2573L Advanced Camera Operation and Film Processing 5 cr.
Prerequisite: GRA 2571L. This advanced course provides for skill development in the techniques of operating the process camera for the reproduction of line and halftone copy negatives, contact printing, preparation of darkroom chemicals, and developing graphic arts films and papers. The course emphasizes the application of basic techniques toward greater job complexity, increased quality and increased productivity. 10 contact hours (theoretical/laboratory).

Gra 2601L Negative Stripping and Offset Platemaking 3 cr.
Prerequisite: GRA 1504L. Corequisite: GRA 1540. This course teaches the basic techniques for stripping up offset negatives and positives for proper press pass and, separating for color, and for exposing and developing offset press plates. 6 contact hours (theoretical/laboratory).

Gra 2602L Advanced Negative Stripping and Offset Platemaking 5 cr.
Prerequisite: GRA 2601L. This advanced course provides for skill development in the technique of stripping up offset negatives and positives for proper press pass and, separating for color, and for exposing and developing offset press plates. The course emphasizes the application of basic techniques toward greater job complexity, increased quality and increased productivity. 10 contact hours (theoretical/laboratory).

Gra 2620L Letterpress Press Operation and Lock-up 3 cr.
This laboratory course teaches the basic technique of setting up and operating both hand-fed and automatic letterpress presses. 6 contact hours (theoretical/laboratory).

Gra 2621L Advanced Letterpress Operation and Lock-up 5 cr.
This advanced laboratory course provides for skill development in the technique of setting up and operating both hand-fed and automatic letterpress presses. The course emphasizes the application of basic techniques toward greater job complexity, increased quality and increased productivity. 10 contact hours (theoretical/laboratory).
GRA 2653L Offset Press Operation 3 cr.
Prerequisite: GRA 1504L. Corequisite: GRA 1340. This course teaches the basic technique of setting up, operating, and maintaining duplicators and offset presses in the 10x15, 11x17, and 14x20 inch ranges. Six contact hours (theory/laboratory).

GRA 2656L Advanced Offset Press Operation 5 cr.
Prerequisite: GRA 2653L. This advanced laboratory course provides for skill development in the technique of setting up, operating, and maintaining duplicators and offset presses in the 10x15, 11x17 and 14x20 inch ranges. This course emphasizes the application of basic techniques toward greater job complexity, increased quality, and increased productivity. Ten contact hours (theory/laboratory).

GRA 2945 Practicum 6 cr.
This course provides experience in the business/industrial setting under actual production standards. Eighteen contact hours (practicum).

GRK — Modern Greek Language

GRK 1000 Conversational Greek (T) 3 cr.
This course concentrates on the development of oral and conversational skills in the language. Communicative habits and cultural patterns that influence everyday conversation will be included. Visual and auditory aids will be used; the student is expected to work independently in the Language Lab and with audio tapes. This course is designed for everyday use of the language; it will not fulfill the General Education foreign language requirement of the State University System. Three contact hours. (Unsupervised lab work)

HBR — Modern Hebrew Language

HBR 1000 Conversational Hebrew (T) 3 cr.
This course concentrates on the development of oral and conversational skills in the language. Communicative habits and cultural patterns that influence everyday conversation will be included. Visual and auditory aids will be used; the student is expected to work independently in the Language Lab and with audio tapes. This course is designed for everyday use of the language; it will not fulfill the General Education foreign language requirement of the State University System. Three contact hours. (Unsupervised lab work)

HFT — Hotel and Restaurant

HFT 1000 Introduction to Hospitality Management (T) 3 cr.
This course introduces the student to the hospitality industry and the management of hotels, motels, and restaurants. This orientation course presents the history, organization, problems and opportunities in the hotel, motel and restaurant industry. Three contact hours.

HFT 1230 Hotel/Motel Operation (T) 3 cr.
This course acquaints the student with the operation of a hotel or motel. It includes front office procedures in registering, accounting for and checking out guests, promotional and sales practices, bookkeeping, inventory control, promotion of furniture, carpeting, restaurant supplies, maintenance and engineering of a practical nature, facilities specifications, purchasing, and storage. Three contact hours.

HFT 1270 Apartment Management 3 cr.
This course outlines the procedures to be followed in the day-to-day problems encountered in the management and operational effectiveness applied to apartment management. The course covers all facets of apartment management, including leases, termination, collection forms, maintenance, purchasing, insurance, accounting records, selection of personnel and agreements, public and human relations and recreational aspects. Three contact hours.

HFT 1430 Front Office Management-Hotel/Motel 3 cr.
This course guides the student through all the skills (including directing the activities and solving the complex problems) needed to manage the front desk of a hotel/motel. The course also acquaints the student with the operation of all the departments as they apply to the student's primary responsibility of checking in and serving guests. Three contact hours.

HFT 2221 Customer-Personnel Relations 3 cr.
This course explores the various successful techniques involved in establishing effective communications and functional relationships with the customer and with personnel at all levels. Three contact hours.

HFT 2700 Tourism (T) 3 cr.
Prerequisite: HFT 1000. This course consists of a study of tourism, which is travel, and includes the entire hospitality field—hotels, motels, resorts, restaurants, camping and all the support services for travelers and vacationers. This course develops an understanding of the travel trade and enables the student to become knowledgeable and responsive to the developments and the economic approaches that are necessary for a travel manager. Three contact hours.

HFT 2941 Internship (T) 3 cr.
This course consists of on-the-job work experience supplied by the hotel-motel restaurant industries. Job placement will be dependent upon the student's preference and availability of participating hospitality institutions. The course consists of 15 hours per week of on-the-job instruction accompanied by one seminar each week. Students employed in the industry will receive the on-going rate of part-time help. Fifteen contact hours; one lecture hour; fourteen field hours.

HFT 2962 Internship 3 cr.
Prerequisite: HFT 2941. This course is an extension of HFT 2941. It consists of on-the-job work experience supplied by the hotel, motel, and restaurant industries. Job placement will be dependent upon the students' preference and availability of participating hospitality institutions. The course consists of 15 hours per week of on-the-job instruction accompanied by one seminar each week. Students employed in the industry will receive the on-going rate for part-time help. Fifteen contact hours; one lecture hour; fourteen field hours.

HHD — Housing and Home Design

HHD 1122 Housing Alternatives 5 cr.
This course includes a study of selection of housing and furnishings, housing values, needs, saving, buying, a home, and characteristics of and plans for desirable housing. It emphasizes selection and arrangement of furnishings through the use of color, principles and elements of design. Three contact hours.

HHD 1232C Functions and Psychology of Space 3 cr.
Prerequisite: HHD 1321. This course analyzes social, private, and work spaces for psychological use of space, efficiency of traffic patterns, and effectiveness of design. The student will read, research, design, and execute a four plan based upon the requirements for the space area. The course also will explore the multiple background modifications for visual impact on the total design of an interior space. Four contact hours; two lecture hours, two laboratory hours.
HHD 1321 Principles of Interior Design 3 cr.
The course content includes an in-depth study of the elements and principles of design. The course demonstrates a proficiency in the knowledge and application of the elements — color, line, texture, ornament, space — as well as the principles — scale and proportion, balance, rhythm, emphasis, and unity — in designing interior spaces. The course will also explore employment opportunities. Four contact: two lecture hours; two laboratory hours.

HHD 1360C Construction of Window Treatments and Draperies 3 cr.
Instruction in this course includes computational procedures relating to measurement, use and care of tools and equipment, and construction of window treatments and draperies. This course emphasizes construction and installation techniques and stresses instruction and practice on all commercial drapery equipment. Six contact hours: two lecture hours; four laboratory hours.

HHD 1362 Window Treatment Design 3 cr.
This course includes a study of types of windows and variety of treatments for each. The course places special emphasis on energy savings related to window types, fabric selection and treatment choice. Course work incorporates information on the selection and installation of hardware and fabrics for each treatment. Three contact hours.

HHD 1365C Home Accessories Construction 3 cr.
This course covers designing and executing home accessory projects and installation of decorative accessories and use of alternative materials. Extensive course work begins with preparing and weathering all accessories for the home, as well as construction of new items worthy of being called collectibles. Six contact hours: two lecture hours; four laboratory hours.

HHD 1426 Materials and Sources 3 cr.
This course is a study of the materials of interior design and sources of each. Topics include textiles, floor and wall coverings, furniture, window treatments and accessories. This course gives special emphasis to customer relations and providing product information to the customer. Three contact hours.

HHD 1490C Fundamentals of Restoration and Preservation 3 cr.
This course, designed to make the individual better able to preserve existing textures inside and outside of the house, explores in supervised experiences, theories in what to restore vs. what to preserve. The course includes studies in practice in developing restoration and preservation skills. Six contact hours: two lecture hours; four laboratory hours.

HHD 1452 Home Maintenance and Repair 3 cr.
The course content and instruction, directed toward making the home owner self-sufficient in handling minor repair, maintenance problems, includes problems with electrical power, plumbing emergencies, your and repair of doors and door coverings, interior painting, wall-papering, furniture care and repair, and miscellaneous repairs. The course will also discuss tools needed, work safety, and combating pests and pests. The course provides opportunities for laboratory experiences in practical applications. Three contact hours.

HHD 1510C Introduction To Upholstery 3 cr.
This course includes selection of tools, materials, and equipment, use of power equipment, dressing of furniture, basic construction processes: fixation the muslin cloth, fitting the upholstery, removing and preparing the fabric, plaiting cover, planning and preparing patterns, cutting and trimming, pleated skirts, lattice cutings, and making upholstery. The course places emphasis upon developing all phases of upholstery, construction useful in a variety of house furnishings projects. Six contact hours: two lecture hours; four laboratory hours.

HHD 1511C Advanced Upholstery 3 cr.
This course, designed to enhance skills and to develop more productive work habits, includes channeling, cutting, making, stitching, repairing, and spot touch-up of furniture, color and color schemes, and headboards. The course places a special emphasis upon the use of antique and classic furniture styles. Six contact hours: two lecture hours; four laboratory hours.

HHD 1611 History of Interiors I 3 cr.
The student will acquire the ability to identify furniture styles, architectural details, and ornament in the early Renaissance period through the Baroque period. Three contact hours.

HHD 1616 History of Interiors II 3 cr.
Prerequisite: HHD 1611. This course is a continuation of HHD 1611, requires the student to identify furniture styles, architectural details, and ornament in the Renaissance period through the Baroque period. Three contact hours.

HHD 2234C Residential and Commercial Design 3 cr.
Prerequisite: HHD 1234C. This laboratory course is designed to provide skills development in planning residential and commercial interiors from blueprints to the final assembly of all furnishings. A study of commercial furnishings, fabrics, building codes and fire regulations is emphasized. Working drawings, specifications, and selection of materials will also be synthesized. Four contact hours: two lecture hours; two laboratory hours.

HHD 2240 Why Preservations? 3 cr.
This course surveys the process of owning a house; planning, incense and exterior restorations, estimating costs, choosing contractors, buying it yourself, getting involved in local preservation groups. The course places a special emphasis on the development of the community historically, socially and architecturally as well as the trends in zoning, crime, transportation, and commercialization. Three contact hours.

HHD 2324C Perspective Renderings — Housing 3 cr.
This course places emphasis on planning and executing renderings, and the techniques of one and two point linear perspective as they apply to interior design and plan furnishings. In this introductory course, the student will develop skills in graphically conveying design concepts into visual representations. Four contact hours: two lecture hours; two laboratory hours.

HHD 2325C Graphic Presentation Techniques 3 cr.
Prerequisite: HHD 2324C. Professionalism is the focus of this course. Various media for graphic interior design presentations will be reviewed, such as, pen and ink, and watercolor renderings. Student projects will also provide experiences in assembling and presentation collages. Four contact hours: two lecture hours; two laboratory hours.

HHD 2600 Architectural Style: Interiors 3 cr.
This course includes a comparative analysis of home architectural interiors and exteriors based upon elements of home design recognizable in home construction. The course also includes a study of antique, reproduction and modern exteriors and interiors with emphasis on the consequences of prior and future preservation of the structure studied. Three contact hours.

HHD 2810 Marketing Techniques For The Interior Designers 3 cr.
Prerequisites: HHD 1426 and HHD 1234C. Utilization of marketing techniques in selling interior design materials is the focus of this course. Based on providing consumer information to the client, the
student will plan and execute marketing strategies utilizing visual aids and display areas. Three contact hours.

HED 2943 Practicum in Economic Revitalization of Homes and Business Dwellings 6 cr.
This course requires a minimum of 20 hours per week of practical work experience approved by the student's advisor. The student will acquire on-the-job experience in housing preservation, restoration, or construction under the supervision of qualified individuals within the business community. Twenty contact hours: one lecture hour. Nineteen field hours.

HED 2945 Interior Design Internship and Seminar 6 cr.
The student will work on the job as an intern under the supervision of qualified personnel in interior design firms within the community. Course theories and skills will be applied in the work experience. The internship training program requires 15 weeks for a total of 350 hours. A two-hour classroom seminar will be held bimonthly on campus. Enrollments in this course require permission of the program director. Twenty-one contact hours: one lecture hour; twenty field hours.

HIS — General History

HIS 1907: Honors Survey of History (T) 3 cr.
Prerequisites: outstanding performance in AMH 1010, 2020. EUH 3001, 3101: recommendation by the Department. Independent survey of one or more selected fields of history incorporates extensive research and in-depth readings as well as developing interests and skills in the presentation of historical analysis and presentation in anticipation of further studies at the senior college level in history or related fields. Three contact hours.

HME — Home Management and Equipment

HME 1200 Home Management 3 cr.
This course introduces the student to problems in home management, including values and goals in the management process; the efficient use of time, money, and human resources; and earning and spending the family income. The course presents a decision-making orientation to sharpen problem solving skills in managing home and physical resources. Three contact hours.

HME 1232 Economic Home Energy Sources 3 cr.
This course is an overview of the conventional and nonconventional energy sources in the home, with opportunities provided for the homeowner to gain an understanding of heating, cooling, and ways of conserving personal energy consumption. A review of building structure and the potential energy use, improvements needed to the building envelope to make it energy efficient, and use of energy for the structure is also a part of the instruction provided. Three contact hours.

HME 1312 Home Equipment - Selection, Use, And Care (T) 3 cr.
Instruction in this course includes all phases of equipment selection, use, and care. The student will have the opportunity to consider features influenced by energy costs, space requirements, lifestyle, number of people using the dwelling, and budget limitations. The course places special emphasis on bad choices and equipment types to better utilize existing systems in an older home. Three contact hours.

HSC — Health Science

HSC 1100 Personal and Community Health (T) 3 cr.
This course consists of a study of health related problems which are of major importance to our society, with emphasis on the study and maintenance of drugs, tobacco, alcohol, sex, and general principles involved in our present understanding of health related areas. Three contact hours.

HSC 2402 Standard First Aid and Personal Safety (T) 2 cr.
This course meets the needs of individuals who have an opportunity to give first aid care frequently whether in their daily routine or special activities. Upon successful completion of the course, a student earns the American National Red Cross Standard First Aid and Personal Safety Certificate. Two contact hours.

HUM — Humanities

HUMA 1740 Overseas Humanities (T) 3 cr.
Prerequisite: ENC 1101 or satisfactory score on placement test. The first half of a humanities course offers students a study-travel program centered on the cities and countries of the area. The course will include field experiences, lectures, discussions, and other experiences in the humanities area. The student will visit great European cities where special attention will be given to forces contributing to the culture of the nation. The student will gain an understanding of an appreciation for the visual and verbal ideas through on-site study within the political, economic, and social historical framework in art, music, literature, architecture, philosophy, and religion in the cultural heritage of Western civilization. This course counts reading and writing commitments. Three contact hours.

HUMB 1740 Overseas Humanities (T) 3 cr.
The second half of a humanities course offers students a study-travel program centered on the cities and countries of the area. The course will include field experiences, lectures, discussions, and other experiences in the humanities area. The student will visit great European cities where special attention will be given to forces contributing to the culture of the nation. The student will gain an understanding of an appreciation for the visual and verbal ideas through on-site study within the political, economic, and social historical framework in art, music, literature, architecture, philosophy, and religion in the cultural heritage of Western civilization (Elective credit only). Three contact hours.

HUM 2211 Humanities: The Renaissance (T) 3 cr.
Prerequisite: ENC 1101 or satisfactory score on placement test. This course consists of the study of literature and creative expressions from their origins in early cultures of the Mediterranean region through medieval Europe as surveyed through the visual arts, music, literature, philosophy, and social history. The course examines the interaction of cultural experiences that developed and were passed on to later peoples. This course provides a basic foundation for study of all humanities courses and includes reading and writing components. Three contact hours.

HUM 2236 Humanities: Mainstays of Cultures, 15th to 20th Century (T) 3 cr.
Prerequisite: ENC 1101 or satisfactory score on placement test. This course consists of the study of life and creative expressions in Europe from the Medieval/Renaissance to the modern world as surveyed through the interrelationships of the visual arts, music, literature, philosophy, and social history. The course provides transition between...
the study of the early and the modern cultures focusing on the European Renaissance, Enlightenment, and 19th Century as they relate to other world developments. The course includes reading and writing competencies. Three contact hours.

HUM 2251 Humanities: 20th Century Cultural Perspectives (T) 3 cr.
Prerequisite: ENC 1101 or satisfactory score on placement test.
This course covers the study of life and creative expressions of Western culture in its relationship with other world cultures as surveyed through history, the impact of science and technology on the arts, the history and art of ideas manifested in the arts and letters from the beginning of the 20th Century to the present. The course includes reading and writing competencies. Three contact hours.

HUM 2440 Humanities of Asia (T) 3 cr.
Prerequisite: ENC 1101 or satisfactory score on placement test.
This course surveys Asian culture and their creative expressions through the media of visual arts, music, literature, and philosophic thought. This course includes reading and writing competencies. Three contact hours.

HUM 2445 Humanities in the Americas (T) 3 cr.
Prerequisite: ENC 1101 or satisfactory score on placement test.
This course covers the study of life and creative expressions in the Americas as surveyed through the media of visual arts, music, literature, philosophy, and social history. This course includes reading and writing competencies. Three contact hours.

HUM 2472 Intercultural Experiences 3 cr.
Prerequisite: ENC 1101, or satisfactory score on placement test.
This course is a study of human nature, human society, and human rights in a specified cultural setting through the humanities, religion, drama, music, dance, the visual arts, myth and legends, and their place in affecting social policies and a culture's vision of its future. Culture will vary. This course includes reading and writing competencies. A student may repeat this course for credit three times when cultural setting is changed. However, it can carry only three hours in Category B of the General Education Requirements. Additional courses, if taken, must stand as electives only. Particular cultural settings are listed by suffix letter to the humanities designation as follows: HUMA 2442, France; HUMA 2472, China; HUMA 2472, Middle East; HUMA 2472, Japan; HUMA 2472, France; HUMA 2472, Latin America; HUMA 2472, Soviet Union; HUMA 2472, Spain. Three contact hours.

HUM — Human Nutrition

HUM 1201 Principles of Nutrition (T) 3 cr.
The student will acquire the basic principles of nutrition and develop skill in applying the recommended dietary allowances to all age groups. The course emphasizes key food nutrients, consumer information regarding food economy, quality food purchasing, and maximum nutrition for the life cycle. Three contact hours.

HUS — Human Services

HUS 2825 Practicum in Human Services 3 cr.
This course will involve both classroom and in-agency experience in the human services. It will provide an interface between classroom learning and practical training in human services agencies with emphasis on basic helping skills. The course requires one hour per week in the classroom plus eight more in work experience under on-going agency supervision. The course may be repeated. Nine contact hours: one lecture hour; eight field hours.

IDS — Interdisciplinary Studies

IDS 1995 Interdisciplinary Studies Seminar (1) 1 cr.
The IDS Seminar provides a structured opportunity for students and professors to participate in special programs to work together in the development of IDS projects, and to interact in an interdisciplinary environment. Students may repeat the course. Two contact hours.

IEA — Industrial Education Applied

IEA 1305 Industrial Survival Procedures 3 cr.
This course teaches basic fundamentals of first aid, fire prevention, and methods of combating fires until professional fire fighters or disaster personnel arrive. The course includes methods to be implemented with minor/major accidents or illness, evacuation procedures, property protection methods, fire/explosion handling procedures. The course places special emphasis on methods of orderly employer/employee conduct and preventing panic. Three contact hours.

INR — International Relations

INR 2002 International Relations (T) 3 cr.
This course is a study of the nature of international relations with emphasis on the contours of national interest and power with respect to the relations of nation-states. This course examines the structure and role of international organizations. Three contact hours.

ISC — Interdisciplinary Science - Natural

ISC 1021 Fundamentals of Natural Science (T) 3 cr.
This course, designed to allow students to study process of science, concepts of science, natural phenomena, and current problems, consists of selected topics studied in terms of their relationship and significance to the various science disciplines. This course is designed essentially as an introductory or preparatory course for any specific physical science. Three contact hours.

ITA — Italian Language

ITA 1000 Conversational Italian (T) 3 cr.
This course concentrates on the development of oral and conversational skills in the language. Communicative habits and cultural patterns that influence everyday conversations will be included. Visual and auditory aids will be used; the student is expected to work independently in the Language Lab and with audio tapes. This course is designed for everyday use of the language; it will not fulfill the General Education foreign language requirements of the State University System. Three contact hours. (unspecified lab work)

JOU — Journalism

JOU 1001 Introduction to Journalism (T) 3 cr.
The course is an introduction to Journalism and Mass Communications and the use of newspapers, radio, television, magazines, and effective personal communications as the basis of effective mass communications. Three contact hours.

JPN — Japanese Language

JPN 1000 Conversational Japanese (T) 3 cr.
This course concentrates on the development of oral and conversational skills in the language. Communicative habits and cultural patterns that influence everyday conversations will be included. Visual and auditory aids will be used; the student is expected to work
independently in the Language Lab and with audio tapes. This course is designed for everyday use of the language; it will not fulfill the General Education foreign language requirements of the State University System. Three contact hours. (Unsupervised lab work)

LAH — Latin American History

LAH 2001 History of the Americas (T) 3 cr.
This course consists of a study of the nations of the Western Hemisphere, including Canada, from colonial times to the present with emphasis on Latin America. Three contact hours.

LEI — Leisure

LEI 233OC Camp Counseling (T) 3 cr.
The purpose of this course is to develop leadership qualities for working with people in a recreational situation and also to provide knowledge and skill necessary for living in, enjoying, and preparing the outdoor camps. The course includes two overnight camping trips. Upon successful completion of the course, the student receives the American Camping Association Campsite Certification. Three contact hours, and two overnight camping trips.

LS — Library Sciences

LS 2001 Use of Books and Libraries (T) 1 cr.
This course includes organization of the FCCJ Learning Resources introduction to the library's classification system, how to use the card catalog, periodical indexes and other basic indexes and suggestions for monitoring. The course will emphasize developing an analytical and systematic approach to the use of reference sources. This course will be helpful to all students who wish to make better use of library facilities at FCCJ, universities and public libraries. Three contact hours (lecture/laboratory).

LIT — Literature

LIT 2000 Introduction to Literature (T) 3 cr.
Prerequisite: ENC 1102. This course emphasizes reading selections for understanding and appreciation. The course considers the major literary forms and their distinctive characteristics and conventions, the evolution of literary movements, and critical approaches. The purpose of the course is to increase personal satisfaction in literature and to prepare the student for further literature study. Three contact hours.

LIT 2100 Great Ideas in World Literature (T) 3 cr.
Prerequisites: ENC 1101 or satisfactory score on placement test. This course surveys universal themes and ideas in representative masterpieces of the world's literary traditions from ancient times to the twentieth century. The selections in translation reflect major periods of human search for meaning in attempting to define relationships to self, society, and the universe. This course includes reading and writing assignments. Three contact hours.

LIT 2270 The Bible as Literature (T) 3 cr.
This course is a study of the development of the Bible in both its natural and its supernatural aspects, its influence on literature and humanity, with emphasis on the Bible's role in the modern world. Three contact hours.

MAC — Mathematics

MAC 1102 College Algebra (T) 3 cr.
Prerequisite: MAT 1053 or satisfactory score on placement test. The major topics included in this course are radicals, exponents, and complex numbers, linear equations and inequalities, quadratic equations, and inequalities, exponential and logarithmic functions, systems of equations, and systems of inequalities. This course was designed for Liberal Arts students. It is not recommended for students who plan to major in mathematics, science, engineering, or computer and information sciences. Three contact hours.

MAC 1104 College Algebra (T) 4 cr.
Prerequisite: MAT 1053 with a grade of C or better, or a satisfactory score on placement test. Recommended for students who need more preparation for trigonometry and calculus. This course presents techniques of algebra with an emphasis on exact vocabulary, introduces analytic geometry, and includes topics on linear and quadratic functions, systems of equations and inequalities, logarithms, theory of polynomials, and matrices. Four contact hours.

MAC 1114 College Trigonometry (T) 3 cr.
Prerequisite: MAC 1104, with a grade of C or better. This course treats trigonometric functions of angles and vectors. It includes identities, inverse circular functions, solution of trigonometric equations, complex numbers, and solutions of triangles. Three contact hours.

MAC 2311 Calculus with Analytic Geometry I (T) 4 cr.
Prerequisite: MAC 1103 or two years of high school algebra and one year of plane geometry. This course, designed for the major in mathematics, science, or engineering having a good foundation in algebra, is a differential and integral calculus course with analytic geometry. Covered in the course are the introduction to analytic geometry, functions and limits, continuity, differentiation of algebraic expressions, the definite integral, applications of the derivative, and integration. Four contact hours.

MAC 2333 Calculus for Business and Social Science I (T) 3 cr.
Prerequisite: MAC 1101. This course is designed to provide an introduction to differential and integral calculus with emphasis placed on applications from business, economics, and the social sciences. Linear programming and topics from linear algebra will also be presented. (Note: This course cannot be used to satisfy upper level degree requirements for students majoring in mathematics or engineering.) Three contact hours.

MAC 2354 Calculus for Business and Social Science II (T) 3 cr.
Prerequisites: MAC 2333 or MAC 1511. This course is a continuation of MAC 2333. Additional topics in differential and integral calculus will be presented as well as an introduction to multivariable calculus with applications to business, economics, and social sciences. Three contact hours.

MAC 2312 Calculus with Analytic Geometry II (T) 4 cr.
Prerequisite: MAC 1511. This course is a continuation of the calculus-analytic geometry sequence. This course includes differentiation and integration of transcendental functions, topics in plane analytic geometry, techniques of integration, infinite series and improper integrals. Four contact hours.

MAC 2313 Calculus with Analytic Geometry III (T) 4 cr.
Prerequisite: MAC 2312. This is the third course in the calculus with analytic geometry sequence. Topics included in this course are infinite series, polar coordinates, vectors in the plane, vectors in space, partial differentiation, multiple integrals, and applications of multiple integrals. Four contact hours.
MAN — Management

MAN 2021 Principles of Management (T) 3 cr.
Suggested prerequisite: GEB 1011. This course consists of a
detailed analysis of the management functions of planning, organiz-
ing, staffing, directing and controlling as related to business
enterprise. The emphasis is on fundamental knowledge of
operations management provides the student with the framework for further study in
the field, or the background for practical application of management
principles in business and industry. Three contact hours.

MAN 2050 Transportation Management and Theory (T) 3 cr.
This course, designed for students advancing to the management
stage in the transportation field, covers financial management, busi-
ness law, management's relation to government, marketing manage-
ment, management theory and philosophy, and broad management
perspective. Three contact hours.

MAN 2300 Personnel Management 3 cr.
This course in personnel management is the process utilizing
materials and human resources to accomplish designated objectives. It
involves the organization, planning, administration, and evaluation of
people to achieve their goals. Some of the functions of personnel
management are planning, organizing, staffing, directing, and con-
trolling. Three contact hours.

MAN 2800 Small Business Management 3 cr.
This course, designed for the student who is primarily interested in
the ownership and management of small business enterprises.
Examinations on the management function of planning, organiz-
ing, staffing, directing and controlling as applied to the small
business. Students also study retailing, warehousing, marketing,
and service type business organizations. Three contact hours.

MAP — Mathematics: Applied

MAP 2502 Differential Equations (T) 3 cr.
Prerequisite: MAC 2512. This course consists of a study of the
procedure and the theory of various methods of solving ordinary
differential equations, including a development of Laplace Transforms
and applications. Three contact hours.

MATH — Mathematics

MATH 1011 Principles of Marketing 3 cr.
Prerequisite: GEB 1011. This course consists of marketing produc-
tivity and markets and the discussion of basic marketing functions.
The course emphasizes the human resource and determinants of demand which
comprise the marketing environment — the economic, psychological,
and social factors. The course also introduces the legal
principles that make up the forces beyond management control, but
are needed in the marketing decision. Three contact hours.

MATH 1201 Salesmanship 3 cr.
This course, an introduction to the art of effective salesmanship,
analyzes and studies types and problems of psychology of sales
situations. Buying motives, customer approach, and sales techniques.
Three contact hours.

MATH 1301 Sales Promotion 3 cr.
This is an overall course covering every aspect of product and
service promotion other than advertising and direct selling. The
course examines promotional events and how promotions are built
around them, the use of promotional items, in-store displays, and the
use of packaging in product promotion. The push-pull theory is
discussed along with varieties of retail and manufacturer-sponsored
promotions. Three contact hours.

MAS — Mathematics: Algebraic Structures

MAS 2103 Elementary Linear Algebra (T) 3 cr.
Prerequisite: MAC 1114. This course involves introductory topics in
matrix algebra, and topics in vector spaces. The topics in matrices are
systems, inverse transformations, adjoint matrix, and eigenvalues.
The topics from vector spaces are vector algebra, linear dependence,
bases, inner products, subspaces and eigenvectors. Computational
aspects are used to strengthen concepts, with application in varied
fields of study. Three contact hours.

MAT — Mathematics: General

MAT 0002 General Mathematics
(College Preparatory Course)
This is a course in mathematical computational skills. Topics
covered include whole numbers, fractions, decimals, percents, intro-
ductive algebra and basic measurements with practical applications
stressed in each of these areas. This course provides an opportunity for
students to develop the mathematical skills necessary for success in
MAT 0024. Elementary Algebra. This course does not apply toward
the associate degree and is part of College Preparatory Studies. Three
credit hours, five contact hours; three lecture hours, two laboratory
hours.

MAT 0024 Elementary Algebra
(College Preparatory Course)
Prerequisite: SAT score on placement test. The emphasis of
this course is on fundamental concepts and structure with manipula-
tion as a tool for reinforcement. The course includes topics on sets,
operations with real numbers, basic operations with polynomials,
solving linear equations, and factoring polynomials, and a brief
introduction to roots and radicals. This course does not count toward
an associate degree and is part of College Preparatory Studies. Three
credit hours, three contact hours.

MAT 1033 Intermediate Algebra (T) 3 cr.
Prerequisite: MAT 0024. A satisfactory score on placement test.
This course includes an introduction to the mathematics of sets,
operations with polynomials, rational expressions and radicals,
solutions of linear and quadratic equations and their applications, solu-
tions of linear inequalities, introduction to relations and functions,
and systems of equations and inequalities. Three contact hours.

MCB — Microbiology

MCB 2013C Microbiology (T) 4 cr.
Prerequisites: CHM 1010, 1040C, or 1043C. High school chemis-
try. In addition, the student will benefit by taking AFB 1150 or ISC
1011C prior to enrolling in MCB 2013C. This course consists of a
study of the prokaryotes, viruses, rickettsias, and arthropod-borne
organisms of medical and economic importance. Laboratory exercises introduce bacteri-
ologic techniques and aseptic procedures using non-pathogenic organ-
isms. Six contact hours; two lecture hours, three clinical hours.

MET — Meteorology

MET 1001 Meteorology (T) 3 cr.
This course, designed to meet the general education requirements in
the Natural Science area, includes the phenomena of weather and
climate and the use of atmospheric data to predict the weather. Three
contact hours.
MGF 1202 College Mathematics (T) 3 cr.
Prerequisite: MAT 1035 or a satisfactory score on placement test.
This is a survey course which includes topics in mathematical logic, set theory, and topology. Probability and statistics, computer literacy, geometry, and measurements will be covered.

MGF 2204 Topics in Finite Mathematics (T) 1 cr.
Prerequisite: MAT 1202 or a satisfactory score on placement test.
This course introduces students to the basic principles of logic, the theory of probability, some of the statistical methods used in the collection, presentation, and interpretation of data, and informal mathematical thinking. A foundation for the mathematical study of uncertainties, familiarization with the terminologies, and concepts of both statistics and informal geometry. This course is intended for students not taking MAT 2304. Students cannot get credit for both MGF 2204 and MGF 1202. Three contact hours.

MIS — Military Science

MIS 1000 Introduction to the Army as a Profession (T) 1 cr.
This introductory course introduces students to military science and the organizational aspects of leadership in the Army, the Army Reserve, and the Reserve Officer Training Corps. The course focuses on the different branches of the Army, the structure of the Basic Training System, and the benefits of commissioning in the active Army Reserve or National Guard. It includes the role of the Army Officer, the non-commissioned officer, and the relationship of the two to the Army. The course also examines the customs and traditions of the service with courtesy. Two contact hours (lecture).

MIS 1001 Map Reading and Land Navigation (T) 1 cr.
Prerequisite: MIS 1000. This is an in-depth study of map reading, which includes use of the grid system, identification of terrain features, elevation and relief, use of the grid-magnetic angle, measuring distance on the grid, and map sheet use of a back azimuth, polar coordinates, intersection, reduction, and modified reduction. Students also learn practical work with the base campsite, including techniques for both day and night. Two contact hours (lecture/field training).

MIS 2101 Military Training Management (T) 1 cr.
This course, designed to develop an understanding of the fundamental concepts involved in military training management, covers basic concepts in the use of leadership, conducting a conference, and presenting a demonstration. Students prepare for class case studies from U.S. military history and demonstrations in basic field training. The course requires that students will become familiar with and prepare a lesson plan for all presentations. Two contact hours (lecture/field training).

MLT — Medical Laboratory Technology

MLT 1023C Introduction to Health Technology 3 cr.
The course is designed to familiarize students with basic medical laboratory techniques. Coverage includes basic laboratory and procedures for health care. This course is intended for students not taking MLT 1120. Students cannot get credit for both MLT 1023C and MLT 1120. Three contact hours (lecture/field training).

MLT 1363C Hematology 6 cr.
This course discusses the principles and techniques of hematology, the student will develop accuracy and precision in performing laboratory tests. The learner will identify and perform the various elements of the blood, perform blood chemistry tests, and recognize and correlate the results of laboratory tests and clinical diagnosis. Eighteen contact hours (lecture/field training).

MLT 1401C Medical Microbiology 6 cr.
This course introduces the student to general concepts of microbiology, the laboratory and its role in medical microbiology. The laboratory section is designed to provide students with the basic skills necessary to perform the most common tests in the laboratory. Three contact hours (lecture/field training).

MLT 2190 Clinical Diagnosis 5 cr.
Prerequisite: MLT 2760C and MLT 2300L. Course: MLT 2190. Presents the principles of disease and the reference values of the constituents of the body. The course will provide an introduction to blood chemistry tests, electrocardiography, and medical microanatomy. Two contact hours (lecture/field training).

MLT 2252C Serology and Blood Banking 5 cr.
Prerequisite: MLT 1120L. This course introduces the student to the basic principles of serology and blood banking. The course will provide an introduction to blood chemistry tests, electrocardiography, and medical microanatomy. Two contact hours (lecture/field training).

MLT 2640C Clinical Chemistry 6 cr.
Course MLT 2640C. Presents the basic concepts and techniques of clinical chemistry. The course will provide an introduction to blood chemistry tests, electrocardiography, and medical microanatomy. Two contact hours (lecture/field training).

MLT 2760C Principles of Clinical Instrumentation 5 cr.
Prerequisite: MLT 2300L. This course introduces the student to the basic principles of clinical laboratory science. The course will provide an introduction to blood chemistry tests, electrocardiography, and medical microanatomy. Two contact hours (lecture/field training).

MLT 2800L Clinical Practicum I 12 cr.
Prerequisite: MLT 2760C. This course is designed to provide the student with clinical experience. The student will develop a basic understanding of medical laboratory techniques. The program director ensures that the student's clinical experiences align with the program's objectives. Sixteen contact hours (lecture/field training).
MLT 2801L Clinical Practicum II 12 cr.
Prerequisite: MLT 2801L, MLT 2780C. Continuing in a directed rotation in a clinical laboratory, the learner will develop accuracy and precision in performing medical laboratory techniques. The program director coordinates, supervises and evaluates the student's clinical experiences. Thirty-five contact hours.

MMC — Mass Media Communications

MMC 2100 Writing for Mass Communications (T) 3 cr.
Prerequisite: ENC 1101. This communications course provides fundamental instruction and practice in developing basic written and oral communications skills with emphasis on straight news reporting, interpretive news reporting, feature writing, feature writing and developing copy for radio and television. Three contact hours.

MTB — Mathematics: Technical and Business

MTB 1321 Technical Algebra 3 cr.
Prerequisite: Two years of high school algebra. This course in applied mathematics involves the principles and laws of basic algebra, solution of linear equations, and basic analytical geometry. In each presentation, students develop solutions to problems of technical nature. Three contact hours.

MTB 1322 Technical Trigonometry (T) 3 cr.
Prerequisite: MAC 1104 or MTB 1321. A continuation of MTB 1321, this course covers the laws and principles of trigonometry, vector analysis, complex numbers, and geometric consideration of trigonometry functions. Emphasis practical work in solution of engineering problems. Three contact hours.

MTB 2323 Technical Calculus 3 cr.
Prerequisite: MAC 1114. A course designed to give the student an introduction into elementary differential and integral calculus with emphasis on their applications to engineering problems. The instructor will introduce analytical geometry where needed to clarify the calculus. Three contact hours.

MTR — Metal Trades

MTR 1002 Production Blueprint Reading 3 cr.
This course, designed to teach blueprint reading in a competency based program of 577 prints, includes assembly drawings of precise machine parts that require a number of machining operations. They provide practice in blueprint reading and illustrate the various elements of blueprints. The course places special emphasis on safety. Three contact hours.

MUSIC COURSES

MUC — Music: Composition

MUC 1301 Introduction to Electronic Music (T) 2 cr.
Prerequisite: Approval of professor. This beginning course in the history and practice of electronic music includes laboratory work with tape recorders and synthesizers. Three contact hours (rehearsal).

MUE — Music: Education

MUE 1440 String Techniques (T) 1 cr.
Open to music majors, this course teaches basic performance skills on violin, viola, violoncello, or double bass. Two contact hours (rehearsal).

MUE 1450 Woodwind Techniques (T) 1 cr.
The course, open to music majors, teaches basic performance skills on clarinet or flute. Two contact hours (rehearsal).

MUE 1460 Brass Techniques (T) 1 cr.
Prerequisite: Open to music major. This course teaches basic performance skills on trombone or trumpet. Two contact hours (rehearsal).

MUE 1470 Percussion Techniques (T) 1 cr.
Open to music majors, this course teaches basic performance skills on percussion instruments with emphasis on rudimental snare drumming. Two contact hours (rehearsal).

MUG — Music: Conduct

MUG 1201 Conducting (Choral) (T) 2 cr.
Prerequisite: MUG 1121 and/or consent of professor. This course provides the student with an introduction to basic techniques used in directing choral rehearsals and performances. Three contact hours (rehearsal).

MUH — Music: History

MUH 2110 Survey of Music History (T) 3 cr.
Prerequisite: ENC 1101 or satisfactory score on placement test. This course consists of a study of music from the early Medieval period to the present day with an emphasis upon the stylistic trends of each period. This course, recommended for music majors only, includes reading and writing competencies. Three contact hours.

MUI 2514 Folk and Traditional Music Of World Cultures (T) 3 cr.
This course is for students with little or no previous musical training. It offers an introduction to the study of folk music, emphasizing those cultural sources that have had the most influence on music developing in the Americas, namely Europe, Sub-Saharan Africa, and Latin and North America. Three contact hours.

MUI 2515 Music in Contemporary Cultures (T) 3 cr.
Prerequisite: ANT 2110. Open to all students as an elective. Music in Contemporary Cultures is a survey course to explore the basic methods of how music is maintained within a given culture as an art form and as a source of cultural continuity, reflecting the values of a given culture or society. Three contact hours.

MUI 2561 Afro-American Music: A Vocal Study (T) 3 cr.
Open to all students as an elective, this course studies the origins of the styles of Afro-American music beginning with its African origins and proceeding to its development in the New World and subsequent influence on America's indigenous music forms through the present day. To facilitate course, the course emphasizes vocal idioms, including Minstrelsy, Blues, Rhythm and blues, Soul, Rock, Gospel and Jazz. Three contact hours.

MUL — Music: Literature

MUL 1040 Music Appreciation (T) 3 cr.
Prerequisite: ENC 1101 or satisfactory score on placement test. This course, designed for students with little or no musical training, combines a limited amount of training in music technology with extensive listening. This course includes reading and writing competencies. Three contact hours.
MUM — Music: Commercial

MUM 1600 Recording Techniques I (T) 3 cr.
This course is open to all students. It offers the beginner's basic information in the art of recording musical and instrumental sound with emphasis on understanding the functions of recording equipment, placement of microphones, making initial recordings of various groups or individual, and the ability to mix-down the initial recordings. Three contact hours: one lecture hour; two laboratory hours.

MUM 1601 Recording Techniques II (T) 3 cr.
Prerequisite: MUM 1600. This course is continuation of Recording Techniques I with emphasis on a more thorough understanding of the function of each piece of equipment in the recording studio. It offers the second semester student more advanced information in the mix-down process. This course has a 135.00 materials fee. Six contact hours: two lecture hours; four studio hours.

MUM — Music: Music Ensembles

MUN 1130 Symphonic Band (T) 1 cr.
This course, a requirement for all woodwind, brass and percussion majors, includes traditional and contemporary band literature. The music department urges all students with previous experience to enroll permission of the instructor to participate. Students may elect this course for credit each semester, with up to four credits counting toward the AA degree. Six contact hours (rehearsal).

MUN 1290 Community Orchestra (T) 1 cr.
Prerequisite: Open by audition to members of the community. The Community Orchestra provides instrumentalists in the college and community an opportunity to perform works representative of a broad spectrum of orchestral literature and to refine techniques of ensemble playing, and to present concerts each term. Membership is by permission of the director and availability of strings, woodwinds, brass, and percussion. Students may elect to take this course for credit each semester, with up to four credits counting toward the AA degree. Two contact hours (rehearsal).

MCNA 1310 College Chorus (T) 1 cr.
Open to all college students, this course includes many styles of choral music in the repertoire. Students may elect to take this course for credit each semester, with up to four credits counting toward the AA degree. Three contact hours (rehearsal).

MUNA 1330 College Chorale (T) 1 cr.
Prerequisite: Permission of director; previous choral experience and audition with permission. The repertoire of the College Chorale includes the more difficult sacred and secular compositions, accompanied and unaccompanied. The student may elect this course for credit each semester, with up to four credits counting toward the AA degree. Five contact hours (rehearsal).

MUN 1340 Chamber Choir (T) 1 cr.
Prerequisite: Previous choral experience and audition with the director. The repertoire of the Chamber Choir includes sacred and secular compositions, with an emphasis on a cappella literature of the 17th through 20th centuries. With membership limited to fifteen (15) or twenty (20) singers, a student may take this course each semester, with up to four (4) elective credits counting toward the AA degree. Three contact hours (rehearsal).

MUN 1580 Community Chorus, Jacksonville Concert Chorale (T) 1 cr.
Prerequisite: Open by audition to members of the community. Repertoire for this course includes sacred and secular major works for chorus and orchestra, as well as shorter compositions. The student may elect this course each semester for credit, with up to four credits counting toward the AA degree, or Continuing Education credit under Adult Education. Two contact hours (rehearsal).

MUM 1440 String Ensemble (T) 1 cr.
Prerequisite: Open to all students who have experience as players on bowed string instruments. Permission of the professor. The department encourages all students who have experience as players on bowed string instruments to audition. The String Ensemble will perform the usual repertoire for string ensembles both independently and in conjunction with other music performing organizations. Students may elect to take this course for credit each semester, with up to four credits counting toward the AA degree. Three contact hours (rehearsal).

MUN 1441 Piano Ensemble and Accompanying (T) 1 cr.
Prerequisite: Open to piano majors and principals by approval of the professor. This course provides the student with an introduction to multiple piano skills, chamber music skills, and the art of piano accompanying, both choral and instrumental. May be repeated for credit. Approval of the professor is required for piano majors and non-music majors. Three contact hours (rehearsal).

MUN 1740 Jazz/Rock Ensemble (T) 1 cr.
Prerequisite: permission of the director. The repertoire includes various styles from jazz and popular literature. The students may elect to take this course for credit each semester, with up to four credits counting toward the AA degree. Three contact hours (rehearsal).

MUN — Music: Opera/Musical Theatre

MCNU 1001 Music Theatre Workshop (T) 1 cr.
Prerequisite: Open by audition. This course is open to students interested in theatre and music in the areas of performance and technical operation. A student may elect to take this course for credit each semester, with up to four credits counting toward the AA degree. One major production each term. Three contact hours (rehearsal).

MUS — Music

MUS 1110 Student Recital (T) 1 cr.
This course is required for all music majors. In conjunction with the one class meeting each week, the student must attend an announced number of (PCC) recital concerts. Each music major enrolled for two hours of applied music is to perform in student recital at least once during the academic year. Meeting hours are flexible to coincide with special performance time. One contact hour.

MUT — Music: Theory

MUT 1101 Intro to Music Theory (T) 3 cr.
This course, designed for students whose background is minimal and who plan to take a second course in music theory, fulfills the general education requirement for music majors. The curriculum includes music theory and the basic principles underlying music. It includes music grammar, notation, harmony, melody, and rhythm, in addition to sight singing and sight training. Three hours: three lecture hours; two laboratory hours.

MUT 1121 Music Theory I (T) 4 cr.
The elementary course in music theory and the principles underlying all music. It includes music grammar, notation, harmony, melody, and rhythm, in addition to sight singing and sight training. Five contact hours: three lecture hours; two laboratory hours.

MUT 1122 Music Theory II (T) 4 cr.
Prerequisite: MUT 1121. A continuation of MUT 1121, this basic course includes music theory and harmony, melody, rhythm,
and form as well as sight singing and ear training. Five contact hours: three lecture hours; two rehearsal hours.

MUT 2126 Music Theory III (T) 4 cr.
Prerequisite: MUT 1122. This continuing course in the techniques of analysis and part writing in vocal, keyboard and instrumental styles includes rotation of hearing, composition, and sight reading, and part writing along with sight singing and ear training. Five contact hours: three lecture hours; two rehearsal hours.

MUT 2127 Music Theory IV (T) 4 cr.
Prerequisite: MUT 2126. This continuing course in music theory includes altered and chromatic chords, extension of tonality, 20th century harmonic, melodic, and rhythmic styles, along with advanced sight singing and ear training. Five contact hours: three lecture hours; two rehearsal hours.

MUT 2231 Keyboard Harmony I (T) 1 cr.
Prerequisite: MUT 2127. Required of all music majors, this course includes development of skills at the piano with emphasis upon organization of melodies, modulation, transposition, and improvisation. Two contact hours.

MUT 2232 Keyboard Harmony II (T) 1 cr.
Prerequisite: MUT 2231. This course is a continuation of MUT 2231. Two contact hours.

MVK — Music: Keyboard

MVK 1111 Class Piano I (T) 1 cr.
This course for beginning piano students meets in groups, with emphasis placed on music reading and technical elements. This course is required for all music majors, unless exempted. Two contact hours (rehearsal).

MVK 1112 Class Piano II (T) 1 cr.
Prerequisite: MVK 1111. This course is a continuation of MVK 1111 and is a requirement for all music majors. Two contact hours (rehearsal).

MVK 2121 Class Piano III (T) 1 cr.
Prerequisite: MVK 1112. This course is a continuation of MVK 1112 and is a requirement for all music majors. Two contact hours (rehearsal).

MVK 2122 Class Piano IV (T) 1 cr.
Prerequisite: MVK 2121. This course is a continuation of MVK 2121. Two contact hours (rehearsal).

MVK 2621 Basic Piano Pedagogy I (T) 2 cr.
This introductory class prepares the student for professional class piano teaching at the beginner and early elementary level. Three contact hours.

MVK 2622 Basic Piano Pedagogy II (T) 2 cr.
This class, a continuation of piano pedagogy, prepares students for professional piano teaching at the upper elementary and intermediate levels through lectures, demonstrations, and observations. Three contact hours.

MVS — Music: Strings

MVS 1116 Class Guitar I (T) 1 cr.
The basic course, designed for students who are interested in studying Classic Guitar, includes a study of the development of the instrument, past and present guitar masters, and the music literature for the guitar and technique. Two contact hours (rehearsal).

MVS 1116 Class Guitar II (T) 1 cr.
Prerequisite: MVS 1116. This course is a continuation of MVS 1116. This course is required for all music majors. Two contact hours (rehearsal).

MVS 2126 Class Guitar III (T) 1 cr.
Prerequisite: MVS 1116. This course is a continuation of MVS 1116. This course is required for all music majors. Two contact hours (rehearsal).

MVS 2127 Class Guitar IV (T) 1 cr.
Prerequisite: MVS 2126. This course is a continuation of MVS 2126. This course is required for all music majors. Two contact hours (rehearsal).

MUS — Music: Vocal

MUS 1111 Class Voice I (T) 1 cr.
Prerequisite: MUS 1111. This course is a continuation of MUS 1111. Two contact hours (rehearsal).

MUS 2121 Class Voice II (T) 1 cr.
Prerequisite: MUS 1111. This course is a continuation of MUS 1111. Two contact hours (rehearsal).

MUS 2122 Class Voice III (T) 1 cr.
Prerequisite: MUS 2121. This course is for singers wishing to further their vocal skills and musicianship. It emphasizes the development of vocal skills beyond the elementary level of vocal production. The course is also open to instrumentalists wishing to develop vocal skills beyond the elementary level of vocal production. Two contact hours (rehearsal).

MUS 2123 Class Voice IV (T) 1 cr.
Prerequisite: MUS 2122. This course is a continuation of MUS 2122. Two contact hours (rehearsal).

APPLIED MUSIC COURSES

MVB — Music: Brass

MVB 1014 Applied Preparatory Baritone I (T) 2 cr.
Prerequisite: Placement by audition before the music faculty. Private lessons designed for music majors whose background indicates a need for further preparation. One hour lesson per week.

MVB 1014 Applied Preparatory Baritone II (T) 2 cr.
Prerequisite: MVB 1014. Second semester of private lessons designed for music majors whose background indicates a need for further preparation. One hour lesson per week.

MVB 1314 Applied Principal Baritone I (T) 2 cr.
Prerequisite: Placement by audition before the music faculty. First semester of private lessons designed for the student majoring in any area of music except performance (e.g., music education, music therapy, etc.). Two half-hour lessons per week.

MVB 1314 Applied Principal Baritone II (T) 2 cr.
Prerequisite: MVB 1314. Second semester of private lessons designed for the student majoring in any area of music except performance (e.g., music education, music therapy, etc.). Two half-hour lessons per week.
MVBA 2324 Applied Principal Baritone III (T) 2 cr.
Prerequisite: MVBA 2323. Third semester of private lessons designed for the student majoring in any area of music except performance (e.g., music education, music therapy, etc.). Two half-hour lessons a week.

MVBA 2324 Applied Principal Baritone IV (T) 2 cr.
Prerequisite: MVBA 2323. Fourth semester of private lessons designed for the student majoring in any area of music except performance (e.g., music education, music therapy, etc.). Two half-hour lessons a week.

MVBA 1214 Applied Secondary Baritone I (T) 1 cr.
Prerequisite: Placement by audition before the music faculty. First semester of private lessons designed for music majors needing to gain proficiency on an instrument other than their principal or major. One half-hour lesson per week.

MVBA 1214 Applied Secondary Baritone II (T) 1 cr.
Prerequisite: MVBA 1214. Second semester of private lessons designed for music majors needing to gain proficiency on an instrument other than their principal or major. One half-hour lesson per week.

MVBA 2224 Applied Secondary Baritone III (T) 1 cr.
Prerequisite: MVBB 1214. Third semester of private lessons designed for music majors needing to gain proficiency on an instrument other than their principal or major. One half-hour lesson per week.

MVBA 2224 Applied Secondary Baritone IV (T) 1 cr.
Prerequisite: MVBA 2223. Fourth semester of private lessons designed for the student majoring in any area of music except performance (e.g., music education, music therapy, etc.). Two half-hour lessons a week.

MVBA 1414 Applied Major Baritone I (T) 3 cr.
Prerequisite: Placement by audition before the entire full-time music faculty. First semester of private lessons designed for the student majoring in performance. Two half-hour lessons a week.

MVBA 1414 Applied Major Baritone II (T) 3 cr.
Prerequisite: MVBA 1414. Second semester of private lessons designed for the student majoring in performance. Two half-hour lessons a week.

MVBA 2424 Applied Major Baritone III (T) 3 cr.
Prerequisite: MVBB 1414. Third semester of private lessons designed for the student majoring in performance. Two half-hour lessons a week.

MVBA 2424 Applied Major Baritone IV (T) 3 cr.
Prerequisite: MVBA 2423. Fourth semester of private lessons designed for the student majoring in performance. Two half-hour lessons a week.

MVW — Music: Woodwinds

MVWA 1014 Applied Preparatory Bassoon I (T) 2 cr.
Prerequisite: Placement by audition before the music faculty. Private lessons designed for music majors whose background indicates a need for further preparation. One hour lesson a week.

MVWA 1014 Applied Preparatory Bassoon II (T) 2 cr.
Prerequisite: MVWA 1014. Second semester of private lessons designed for music majors whose background indicates a need for further preparation. One hour lesson a week.

MVWA 1314 Applied Principal Bassoon I (T) 2 cr.
Prerequisite: Placement by audition before the music faculty. First semester of private lessons designed for the student majoring in any area of music except performance (e.g., music education, music therapy, etc.). Two half-hour lessons a week.

MVWA 1314 Applied Principal Bassoon II (T) 2 cr.
Prerequisite: MVWA 1314. Second semester of private lessons designed for the student majoring in any area of music except performance (e.g., music education, music therapy, etc.). Two half-hour lessons a week.

MVWA 2324 Applied Principal Bassoon III (T) 2 cr.
Prerequisite: MVWA 1314. Third semester of private lessons designed for the student majoring in any area of music except performance (e.g., music education, music therapy, etc.). Two half-hour lessons a week.

MVWA 2324 Applied Principal Bassoon IV (T) 2 cr.
Prerequisite: MVWA 2323. Fourth semester of private lessons designed for the student majoring in any area of music except performance (e.g., music education, music therapy, etc.). Two half-hour lessons a week.

MVWB 1214 Applied Secondary Bassoon I (T) 1 cr.
Prerequisite: MVWA 1214. Second semester of private lessons designed for the student majoring in any area of music except performance (e.g., music education, music therapy, etc.). Two half-hour lessons a week.

MVWB 2224 Applied Secondary Bassoon II (T) 1 cr.
Prerequisite: MVWB 2223. Fourth semester of private lessons designed for the student majoring in any area of music except performance (e.g., music education, music therapy, etc.). Two half-hour lessons a week.

MVWA 1214 Applied Secondary Bassoon I (T) 1 cr.
Prerequisite: Placement by audition before the music faculty. First semester of private lessons designed for music majors needing to gain proficiency on an instrument other than their principal or major. One half-hour lesson per week.

MVWB 2224 Applied Secondary Bassoon IV (T) 1 cr.
Prerequisite: MVWB 2223. Fourth semester of private lessons designed for the student majoring in any area of music except performance (e.g., music education, music therapy, etc.). Two half-hour lessons a week.

MVWB 1414 Applied Major Bassoon I (T) 3 cr.
Prerequisite: MVWA 1414. Second semester of private lessons designed for music majors needing to gain proficiency on an instrument other than their principal or major. One half-hour lesson per week.

MVWB 2424 Applied Major Bassoon II (T) 3 cr.
Prerequisite: MVWB 2423. Fourth semester of private lessons designed for the student majoring in any area of music except performance (e.g., music education, music therapy, etc.). Two half-hour lessons a week.

MVWA 1414 Applied Major Bassoon I (T) 3 cr.
Prerequisite: Placement by audition before the entire full-time music faculty. First semester of private lessons designed for the student majoring in performance. Two half-hour lessons a week.

MVWB 1414 Applied Major Bassoon II (T) 3 cr.
Prerequisite: MVWB 1414. Second semester of private lessons designed for the student majoring in performance. Two half-hour lessons a week.

MVWB 2424 Applied Major Bassoon III (T) 3 cr.
Prerequisite: MVWB 2423. Fourth semester of private lessons designed for the student majoring in performance. Two half-hour lessons a week.
MVS — Music: Strings (Continued)

Cello

MVS 1013 Applied Preparatory Cello I (T) 2 cr.
Prerequisite: placement by audition before the music faculty. Private lessons designed for music majors whose background indicates a need for further preparation. One hour lesson per week.

MYSB 1013 Applied Preparatory Cello II (T) 2 cr.
Prerequisite: MVS 1013. Second semester of private lessons designed for the student majoring in any area of music except performance (e.g., music education, music therapy, etc.). Two half-hour lessons a week.

MYSB 1013 Applied Principal Cello II (T) 2 cr.
Prerequisite: MYSB 1013. Third semester of private lessons designed for the student majoring in any area of music except performance (e.g., music education, music therapy, etc.). Two half-hour lessons a week.

MVS 1213 Applied Principal Cello III (T) 2 cr.
Prerequisite: MVS 1723. Fourth semester of private lessons designed for the student majoring in any area of music except performance (e.g., music education, music therapy, etc.). Two half-hour lessons a week.

MVS 1213 Applied Principal Cello IV (T) 2 cr.
Prerequisite: MVS 1213. Fifth semester of private lessons designed for the student majoring in any area of music except performance (e.g., music education, music therapy, etc.). Two half-hour lessons a week.

MVS 1213 Applied Principal Cello V (T) 2 cr.
Prerequisite: MVS 1213. Sixth semester of private lessons designed for the student majoring in any area of music except performance (e.g., music education, music therapy, etc.). Two half-hour lessons a week.

MVS 1213 Applied Principal Cello VI (T) 2 cr.
Prerequisite: MVS 1213. Seventh semester of private lessons designed for the student majoring in any area of music except performance (e.g., music education, music therapy, etc.). Two half-hour lessons a week.

MVS 1213 Applied Principal Cello VII (T) 2 cr.
Prerequisite: MVS 1213. Eighth semester of private lessons designed for the student majoring in any area of music except performance (e.g., music education, music therapy, etc.). Two half-hour lessons a week.

MVS 1213 Applied Principal Cello VIII (T) 2 cr.
Prerequisite: MVS 1213. Ninth semester of private lessons designed for the student majoring in any area of music except performance (e.g., music education, music therapy, etc.). Two half-hour lessons a week.

MVS 1213 Applied Principal Cello IX (T) 2 cr.
Prerequisite: MVS 1213. Tenth semester of private lessons designed for the student majoring in any area of music except performance (e.g., music education, music therapy, etc.). Two half-hour lessons a week.

MVS 1213 Applied Principal Cello X (T) 2 cr.
Prerequisite: MVS 1213. Eleventh semester of private lessons designed for the student majoring in any area of music except performance (e.g., music education, music therapy, etc.). Two half-hour lessons a week.

MVS 1213 Applied Principal Cello XI (T) 2 cr.
Prerequisite: MVS 1213. Twelfth semester of private lessons designed for the student majoring in any area of music except performance (e.g., music education, music therapy, etc.). Two half-hour lessons a week.

MVS 1213 Applied Principal Cello XII (T) 2 cr.
Prerequisite: MVS 1213. Thirteenth semester of private lessons designed for the student majoring in any area of music except performance (e.g., music education, music therapy, etc.). Two half-hour lessons a week.

MVS 1213 Applied Principal Cello XIII (T) 2 cr.
Prerequisite: MVS 1213. Fourteenth semester of private lessons designed for the student majoring in any area of music except performance (e.g., music education, music therapy, etc.). Two half-hour lessons a week.

MVS 1213 Applied Principal Cello XIV (T) 2 cr.
Prerequisite: MVS 1213. Fifteenth semester of private lessons designed for the student majoring in any area of music except performance (e.g., music education, music therapy, etc.). Two half-hour lessons a week.

MVS 1213 Applied Principal Cello XV (T) 2 cr.
Prerequisite: MVS 1213. Sixteenth semester of private lessons designed for the student majoring in any area of music except performance (e.g., music education, music therapy, etc.). Two half-hour lessons a week.

MVS 1213 Applied Principal Cello XVI (T) 2 cr.
Prerequisite: MVS 1213. Seventeenth semester of private lessons designed for the student majoring in any area of music except performance (e.g., music education, music therapy, etc.). Two half-hour lessons a week.

MVS 1213 Applied Principal Cello XVII (T) 2 cr.
Prerequisite: MVS 1213. Eighteenth semester of private lessons designed for the student majoring in any area of music except performance (e.g., music education, music therapy, etc.). Two half-hour lessons a week.

MVS 1213 Applied Principal Cello XVIII (T) 2 cr.
Prerequisite: MVS 1213. Nineteenth semester of private lessons designed for the student majoring in any area of music except performance (e.g., music education, music therapy, etc.). Two half-hour lessons a week.

MVS 1213 Applied Principal Cello XIX (T) 2 cr.
Prerequisite: MVS 1213. Twentieth semester of private lessons designed for the student majoring in any area of music except performance (e.g., music education, music therapy, etc.). Two half-hour lessons a week.

MVS 1213 Applied Principal Cello XX (T) 2 cr.
Prerequisite: MVS 1213. Twenty-first semester of private lessons designed for the student majoring in any area of music except performance (e.g., music education, music therapy, etc.). Two half-hour lessons a week.

MVS 1213 Applied Principal Cello XXI (T) 2 cr.
Prerequisite: MVS 1213. Twenty-second semester of private lessons designed for the student majoring in any area of music except performance (e.g., music education, music therapy, etc.). Two half-hour lessons a week.

MVS 1213 Applied Principal Cello XXII (T) 2 cr.
Prerequisite: MVS 1213. Twenty-third semester of private lessons designed for the student majoring in any area of music except performance (e.g., music education, music therapy, etc.). Two half-hour lessons a week.

MVS 1213 Applied Principal Cello XXIII (T) 2 cr.
Prerequisite: MVS 1213. Twenty-fourth semester of private lessons designed for the student majoring in any area of music except performance (e.g., music education, music therapy, etc.). Two half-hour lessons a week.

MVS 1213 Applied Principal Cello XXIV (T) 2 cr.
Prerequisite: MVS 1213. Twenty-fifth semester of private lessons designed for the student majoring in any area of music except performance (e.g., music education, music therapy, etc.). Two half-hour lessons a week.

MVS 1213 Applied Principal Cello XXV (T) 2 cr.
Prerequisite: MVS 1213. Twenty-sixth semester of private lessons designed for the student majoring in any area of music except performance (e.g., music education, music therapy, etc.). Two half-hour lessons a week.

MVS 1213 Applied Principal Cello XXVI (T) 2 cr.
Prerequisite: MVS 1213. Twenty-seventh semester of private lessons designed for the student majoring in any area of music except performance (e.g., music education, music therapy, etc.). Two half-hour lessons a week.
most other than their principal or major. One half-hour lesson per week.

MVWA 2213 Applied Secondary Clarinet III (T) 1 cr.
Prerequisite: MVVA 1213. Third semester of private lessons designed for music majors needing to gain proficiency on an instrument other than their principal or major. One half-hour lesson per week.

MVWB 2213 Applied Secondary Clarinet IV (T) 1 cr.
Prerequisite: MVWA 2222. Fourth semester of private lessons designed for the student majoring in any area of music except performance (e.g. music education, music therapy, etc.). Two half-hour lessons a week.

MVWA 1413 Applied Major Clarinet I (T) 3 cr.
Prerequisite: placement by audition before the entire full-time music faculty. First semester of private lessons designed for the student majoring in performance. Two half-hour lessons a week.

MVWB 1413 Applied Major Clarinet II (T) 3 cr.
Prerequisite: MVWA 1412. Second semester of private lessons designed for the student majoring in performance. Two half-hour lessons a week.

MVWA 2423 Applied Major Clarinet III (T) 3 cr.
Prerequisite: MVWB 1412. Third semester of private lessons designed for the student majoring in performance. Two half-hour lessons a week.

MVWB 2423 Applied Major Clarinet IV (T) 3 cr.
Prerequisite: MVWA 2423. Fourth semester of private lessons designed for the student majoring in performance. Two half-hour lessons a week.

MVV — Music: Woodwinds (Continued)

Flute

MVWA 1911 Applied Preparatory Flute I (T) 2 cr.
Prerequisite: placement by audition before the music faculty. Private lessons designed for music majors whose background indicates a need for further preparation. One hour lesson per week.

MVWB 2011 Applied Preparatory Flute II (T) 2 cr.
Prerequisite: MVVA 1011. Second semester of private lessons designed for music majors whose background indicates a need for further preparation. One hour lesson per week.

MVWA 2311 Applied Principal Flute I (T) 2 cr.
Prerequisite: placement by audition before the music faculty. First semester of private lessons designed for the student majoring in any area of music except performance (e.g. music education, music therapy, etc.). Two half-hour lessons a week.

MVWB 2311 Applied Principal Flute II (T) 2 cr.
Prerequisite: MVWA 2311. Second semester of private lessons designed for the student majoring in any area of music except performance (e.g. music education, music therapy, etc.). Two half-hour lessons a week.

MVWA 2321 Applied Principal Flute III (T) 2 cr.
Prerequisite: MVWA 2311. Third semester of private lessons designed for the student majoring in any area of music except performance (e.g. music education, music therapy, etc.). Two half-hour lessons a week.

MVWB 2321 Applied Principal Flute IV (T) 2 cr.
Prerequisite: MVWA 2321. Fourth semester of private lessons designed for the student majoring in any area of music except performance (e.g. music education, music therapy, etc.). Two half-hour lessons a week.

MVWA 1211 Applied Principal Flute I (T) 1 cr.
Prerequisite: placement by audition before the music faculty. First semester of private lessons designed for music students needing to gain proficiency on an instrument other than their principal or major. One half-hour lesson per week.

MVWB 1211 Applied Principal Flute II (T) 1 cr.
Prerequisite: MVWA 1211. Second semester of private lessons designed for music majors needing to gain proficiency on an instrument other than their principal or major. One half-hour lesson per week.

MVWA 2221 Applied Principal Flute III (T) 1 cr.
Prerequisite: MVWB 1211. Third semester of private lessons designed for music majors needing to gain proficiency on an instrument other than their principal or major. One half-hour lesson per week.

MVWB 2221 Applied Principal Flute IV (T) 1 cr.
Prerequisite: MVWA 2221. Fourth semester of private lessons designed for the student majoring in any area of music except performance (e.g. music education, music therapy, etc.). Two half-hour lessons a week.

MVWA 1411 Applied Major Flute I (T) 3 cr.
Prerequisite: placement by audition before the entire full-time music faculty. First semester of private lessons designed for the student majoring in performance. Two half-hour lessons a week.

MVWB 1411 Applied Major Flute II (T) 3 cr.
Prerequisite: MVWA 1411. Second semester of private lessons designed for the student majoring in performance. Two half-hour lessons a week.

MVWA 2421 Applied Major Flute III (T) 3 cr.
Prerequisite: MVWB 1411. Third semester of private lessons designed for the student majoring in performance. Two half-hour lessons a week.

MVWB 2421 Applied Major Flute IV (T) 3 cr.
Prerequisite: MVWA 2421. Fourth semester of private lessons designed for the student majoring in performance. Two half-hour lessons a week.

MVV — Music: Brasses (Continued)

French Horn

MVBA 1012 Applied Preparatory French Horn I (T) 2 cr.
Prerequisite: placement by audition before the music faculty. Private lessons designed for music majors whose background indicates a need for further preparation. One hour lesson per week.

MVBB 1012 Applied Preparatory French Horn II (T) 2 cr.
Prerequisite: MVBA 1012. Second semester of private lessons designed for music majors whose background indicates a need for further preparation. One hour lesson per week.

MVBA 1312 Applied Principal French Horn I (T) 2 cr.
Prerequisite: placement by audition before the music faculty. First semester of private lessons designed for the student majoring in any
MVS — Music: Strings (Continued)

Guitar

MVS 2016 Applied Preparatory Guitar I (T) 2 cr.
Prerequisite: Placement by audition before the music faculty. Private lessons designed for voice majors whose background indicates a need for further preparation. One-half hour lesson per week.

MVS 2016 Applied Preparatory Guitar II (T) 2 cr.
Prerequisite: MVS 1016. Second semester of private lessons designed for music majors whose background indicates a need for further preparation. One-half hour lesson per week.

MVS 2016 Applied Preparatory Guitar III (T) 2 cr.
Prerequisite: MVS 2016. Third semester of private lessons designed for the student majoring in any area of music except performance (e.g., music education, music therapy, etc.). Two half-hour lessons a week.

MVS 2016 Applied Preparatory Guitar IV (T) 2 cr.
Prerequisite: MVS 2016. Fourth semester of private lessons designed for the student majoring in any area of music except performance (e.g., music education, music therapy, etc.). Two half-hour lessons a week.

MVS 2016 Applied Preparatory Guitar V (T) 2 cr.
Prerequisite: MVS 2016. Fifth semester of private lessons designed for the student majoring in any area of music except performance (e.g., music education, music therapy, etc.). Two half-hour lessons a week.

MVS 2016 Applied Preparatory Guitar VI (T) 2 cr.
Prerequisite: MVS 2016. Sixth semester of private lessons designed for the student majoring in any area of music except performance (e.g., music education, music therapy, etc.). Two half-hour lessons a week.

MVS 2016 Applied Preparatory Guitar VII (T) 2 cr.
Prerequisite: MVS 2016. Seventh semester of private lessons designed for the student majoring in any area of music except performance (e.g., music education, music therapy, etc.). Two half-hour lessons a week.

MVS 2016 Applied Preparatory Guitar VIII (T) 2 cr.
Prerequisite: MVS 2016. Eighth semester of private lessons designed for the student majoring in any area of music except performance (e.g., music education, music therapy, etc.). Two half-hour lessons a week.

MVS 2016 Applied Preparatory Guitar IX (T) 2 cr.
Prerequisite: MVS 2016. Ninth semester of private lessons designed for the student majoring in any area of music except performance (e.g., music education, music therapy, etc.). Two half-hour lessons a week.

MVS 2016 Applied Preparatory Guitar X (T) 2 cr.
Prerequisite: MVS 2016. Tenth semester of private lessons designed for the student majoring in any area of music except performance (e.g., music education, music therapy, etc.). Two half-hour lessons a week.

MVS 2016 Applied Preparatory Guitar XI (T) 2 cr.
Prerequisite: MVS 2016. Eleventh semester of private lessons designed for the student majoring in any area of music except performance (e.g., music education, music therapy, etc.). Two half-hour lessons a week.

MVS 2016 Applied Preparatory Guitar XII (T) 2 cr.
Prerequisite: MVS 2016. Twelfth semester of private lessons designed for the student majoring in any area of music except performance (e.g., music education, music therapy, etc.). Two half-hour lessons a week.

MVS 2016 Applied Preparatory Guitar XIII (T) 2 cr.
Prerequisite: MVS 2016. Thirteenth semester of private lessons designed for the student majoring in any area of music except performance (e.g., music education, music therapy, etc.). Two half-hour lessons a week.

MVS 2016 Applied Preparatory Guitar XIV (T) 2 cr.
Prerequisite: MVS 2016. Fourteenth semester of private lessons designed for the student majoring in any area of music except performance (e.g., music education, music therapy, etc.). Two half-hour lessons a week.

MVS 2016 Applied Preparatory Guitar XV (T) 2 cr.
Prerequisite: MVS 2016. Fifteenth semester of private lessons designed for the student majoring in any area of music except performance (e.g., music education, music therapy, etc.). Two half-hour lessons a week.

MVS 2016 Applied Preparatory Guitar XVI (T) 2 cr.
Prerequisite: MVS 2016. Sixteenth semester of private lessons designed for the student majoring in any area of music except performance (e.g., music education, music therapy, etc.). Two half-hour lessons a week.

MVS 2016 Applied Preparatory Guitar XVII (T) 2 cr.
Prerequisite: MVS 2016. Seventeenth semester of private lessons designed for the student majoring in any area of music except performance (e.g., music education, music therapy, etc.). Two half-hour lessons a week.

MVS 2016 Applied Preparatory Guitar XVIII (T) 2 cr.
Prerequisite: MVS 2016. Eighteenth semester of private lessons designed for the student majoring in any area of music except performance (e.g., music education, music therapy, etc.). Two half-hour lessons a week.

MVS 2016 Applied Preparatory Guitar XIX (T) 2 cr.
Prerequisite: MVS 2016. Nineteenth semester of private lessons designed for the student majoring in any area of music except performance (e.g., music education, music therapy, etc.). Two half-hour lessons a week.

MVS 2016 Applied Preparatory Guitar XX (T) 2 cr.
Prerequisite: MVS 2016. Twentieth semester of private lessons designed for the student majoring in any area of music except performance (e.g., music education, music therapy, etc.). Two half-hour lessons a week.
MVSIA 1416 Applied Major Guitar II (T) 3 cr.
Prerequisite: MVSIA 1416. Second semester of private lessons
designed for the student majoring in performance. Two-hour lessons a week.

MYSIA 2426 Applied Major Guitar III (T) 3 cr.
Prerequisite: MYSIA 1416. Third semester of private lessons
designed for the student majoring in performance. Two-hour lessons a week.

MYSB 2426 Applied Major Guitar IV (T) 3 cr.
Prerequisite: MYSIA 2426. Fourth semester of private lessons
designed for the student majoring in performance. Two-hour lessons a week.

MVWA — Music: Woodwinds (Continued)

MVWA 1012 Applied Preparatory Oboe I (T) 2 cr.
Prerequisite: Placement by audition before the music faculty. Private lessons designed for music majors whose background indicates a need for further preparation. One-hour lessons per week.

MVWB 1012 Applied Preparatory Oboe II (T) 2 cr.
Prerequisite: MVWA 1012. Second semester of private lessons designed for music majors whose background indicates a need for further preparation. One-hour lesson per week.

MVWA 1312 Applied Principal Oboe I (T) 2 cr.
Prerequisite: Placement by audition before the music faculty. First semester of private lessons designed for the student majoring in any area of music except performance (e.g., music education, music therapy, etc.). Two-half-hour lessons a week.

MVWB 1312 Applied Principal Oboe II (T) 2 cr.
Prerequisite: MVWA 1312. Second semester of private lessons designed for the student majoring in any area of music except performance (e.g., music education, music therapy, etc.). Two-half-hour lessons a week.

MVWA 2322 Applied Principal Oboe III (T) 2 cr.
Prerequisite: MVWA 2321. Third semester of private lessons designed for the student majoring in any area of music except performance (e.g., music education, music therapy, etc.). Two-half-hour lessons a week.

MVWB 2322 Applied Principal Oboe IV (T) 2 cr.
Prerequisite: MVWA 2322. Fourth semester of private lessons designed for the student majoring in any area of music except performance (e.g., music education, music therapy, etc.). Two-half-hour lessons a week.

MVWA 1212 Applied Secondary Oboe I (T) 1 cr.
Prerequisite: Placement by audition before the music faculty. First semester of private lessons designed for music majors needing to gain proficiency on an instrument other than their principal or major. One-half-hour lesson per week.

MVWB 1212 Applied Secondary Oboe II (T) 1 cr.
Prerequisite: MVWA 1212. Second semester of private lessons designed for music majors needing to gain proficiency on an instrument other than their principal or major. One-half-hour lesson per week.

MVWA 2222 Applied Secondary Oboe III (T) 1 cr.
Prerequisite: MVWB 1212. Third semester of private lessons
designed for music majors needing to gain proficiency on an instrument other than their principal or major. One-half-hour lesson per week.

MVWA 2222 Applied Secondary Oboe IV (T) 1 cr.
Prerequisite: MVWA 2222. Fourth semester of private lessons
designed for the student majoring in any area of music except performance (e.g., music education, music therapy, etc.). Two-half-hour lessons a week.

MVWA 1412 Applied Major Oboe I (T) 3 cr.
Prerequisite: Placement by audition before the entire full-time music faculty. First semester of private lessons designed for the student majoring in performance. Two-half-hour lessons a week.

MVWB 1412 Applied Major Oboe II (T) 3 cr.
Prerequisite: MVWA 1412. Second semester of private lessons
designed for the student majoring in performance. Two-half-hour lessons a week.

MVWA 2422 Applied Major Oboe III (T) 3 cr.
Prerequisite: MVWA 2422. Third semester of private lessons designed for the student majoring in performance. Two-half-hour lessons a week.

MVWA 2422 Applied Major Oboe IV (T) 3 cr.
Prerequisite: MVWA 2422. Fourth semester of private lessons designed for the student majoring in performance. Two-half-hour lessons a week.

MVKA — Music: Keyboard (Continued)

MVKA 1013 Applied Preparatory Organ I (T) 2 cr.
Prerequisite: Placement by audition before the music faculty. Private lessons designed for music majors whose background indicates a need for further preparation. One-hour lesson per week.

MVKB 1013 Applied Preparatory Organ II (T) 2 cr.
Prerequisite: MVKA 1013. Second semester of private lessons designed for music majors whose background indicates a need for further preparation. One-hour lesson per week.

MVKA 1313 Applied Principal Organ I (T) 2 cr.
Prerequisite: Placement by audition before the music faculty. First semester of private lessons designed for the student majoring in any area of music except performance (e.g., music education, music therapy, etc.). Two-half-hour lesson per week.

MVKB 1313 Applied Principal Organ II (T) 2 cr.
Prerequisite: MVKA 1313. Second semester of private lessons designed for the student majoring in any area of music except performance (e.g., music education, music therapy, etc.). Two-half-hour lesson per week.

MVKA 1213 Applied Secondary Organ I (T) 1 cr.
Prerequisite: Placement by audition before the music faculty. First semester of private lessons designed for music majors needing to gain proficiency on an instrument other than their principal or major. One-half-hour lesson per week.

MVKB 1213 Applied Secondary Organ II (T) 1 cr.
Prerequisite: MVKA 1213. Second semester of private lessons designed for music majors needing to gain proficiency on an instrument other than their principal or major. One-half-hour lesson per week.

MVKA 2223 Applied Secondary Organ III (T) 1 cr.
Prerequisite: MVKB 1213. Third semester of private lessons designed for the student majoring in any area of music except performance (e.g., music education, music therapy, etc.). Two half-hour lessons a week.

MVKA 2223 Applied Secondary Organ IV (T) 1 cr.
Prerequisite: MVKB 2223. Fourth semester of private lessons designed for the student majoring in any area of music except performance (e.g., music education, music therapy, etc.). Two half-hour lessons a week.
MVKA 1213 Applied Secondary Organ I (T) 1 cr.
Prerequisite: placement by audition before the music faculty. First semester of private lessons designed for music majors needing to gain proficiency on an instrument other than their principal or major. One half-hour lesson per week.

MVKA 1215 Applied Secondary Organ II (T) 1 cr.
Prerequisite: MVKA 1213. Second semester of private lessons designed for music majors needing to gain proficiency on an instrument other than their principal or major. One half-hour lesson per week.

MVKA 2223 Applied Secondary Organ III (T) 1 cr.
Prerequisite: MVKA 1213. Third semester of private lessons designed for music majors needing to gain proficiency on an instrument other than their principal or major. One half-hour lesson per week.

MVKA 2225 Applied Secondary Organ IV (T) 1 cr.
Prerequisite: MVKA 2223. Fourth semester of private lessons designed for the student majoring in any area of music except performance (e.g., music education, music therapy, etc.). Two half-hour lessons a week.

MVKA 1413 Applied Major Organ I (T) 3 cr.
Prerequisite: placement by audition before the entire full-time music faculty. First semester of private lessons designed for the student majoring in performance. Two half-hour lessons a week.

MVKA 1415 Applied Major Organ II (T) 3 cr.
Prerequisite: MVKA 1413. Second semester of private lessons designed for the student majoring in performance. Two half-hour lessons a week.

MVKA 2423 Applied Major Organ III (T) 3 cr.
Prerequisite: MVKA 1413. Third semester of private lessons designed for the student majoring in performance. Two half-hour lessons a week.

MVKA 2425 Applied Major Organ IV (T) 3 cr.
Prerequisite: MVKA 2423. Fourth semester of private lessons designed for the student majoring in performance. Two half-hour lessons a week.

MVO — Music: Other Instruments

MVOA 1010 Applied Preparatory Other I (T) 2 cr.
Prerequisite: placement by audition before the music faculty. Private lessons designed for music majors whose background indicates a need for further preparation. One hour lesson per week.

MVOB 1010 Applied Preparatory Other II (T) 2 cr.
Prerequisite: MVOA 1010. Second semester of private lessons designed for music majors whose background indicates a need for further preparation. One hour lesson per week.

MVOA 1510 Applied Principal Other I (T) 2 cr.
Prerequisite: placement by audition before the music faculty. First semester of private lessons designed for the student majoring in any area of music except performance (e.g., music education, music therapy, etc.). Two half-hour lessons a week.

MVOA 1510 Applied Principal Other II (T) 2 cr.
Prerequisite: MVOA 1510. Second semester of private lessons designed for the student majoring in any area of music except performance (e.g., music education, music therapy, etc.). Two half-hour lessons a week.

MVOA 2320 Applied Principal Other III (T) 2 cr.
Prerequisite: MVOB 1510. Third semester of private lessons designed for the student majoring in any area of music except performance (e.g., music education, music therapy, etc.). Two half-hour lessons a week.

MVOB 2320 Applied Principal Other IV (T) 2 cr.
Prerequisite: MVOB 2320. Fourth semester of private lessons designed for the student majoring in any area of music except performance (e.g., music education, music therapy, etc.). Two half-hour lessons a week.

MVOA 1210 Applied Secondary Other I (T) 1 cr.
Prerequisite: placement by audition before the music faculty. First semester of private lessons designed for music majors needing to gain proficiency on an instrument other than their principal or major. One half-hour lesson per week.

MVOB 1210 Applied Secondary Other II (T) 1 cr.
Prerequisite: MVOA 1210. Second semester of private lessons designed for music majors needing to gain proficiency on an instrument other than their principal or major. One half-hour lesson per week.

MVOA 2220 Applied Secondary Other III (T) 1 cr.
Prerequisite: MVOB 2220. Third semester of private lessons designed for music majors needing to gain proficiency on an instrument other than their principal or major. One half-hour lesson per week.

MVOB 2220 Applied Secondary Other IV (T) 1 cr.
Prerequisite: MVOA 2220. Fourth semester of private lessons designed for the student majoring in any area of music except performance (e.g., music education, music therapy, etc.). Two half-hour lessons a week.

MVOA 1410 Applied Major Other I (T) 3 cr.
Prerequisite: placement by audition before the entire full-time music faculty. First semester of private lessons designed for the student majoring in performance. Two half-hour lessons a week.

MVOB 1410 Applied Major Other II (T) 3 cr.
Prerequisite: MVOA 1410. Second semester of private lessons designed for the student majoring in performance. Two half-hour lessons a week.

MVOA 2430 Applied Major Other III (T) 3 cr.
Prerequisite: MVOB 1410. Third semester of private lessons designed for the student majoring in performance. Two half-hour lessons a week.

MVOB 2430 Applied Major Other IV (T) 3 cr.
Prerequisite: MVOA 2430. Fourth semester of private lessons designed for the student majoring in performance. Two half-hour lessons a week.

MVP — Music Percussion

MVP 1011 Applied Preparatory Percussion I (T) 2 cr.
Prerequisite: placement by audition before the music faculty. Private lessons designed for music majors whose background indicates a need for further preparation. One hour lesson per week.

MVPB 1011 Applied Preparatory Percussion II (T) 2 cr.
Prerequisite: MVP 1011. Second semester of private lessons designed for music majors whose background indicates a need for further preparation. One hour lesson per week.
MVPB 1311 Applied Principal Percussion II (T) 2 cr.
Prerequisite: MVPA 1411. Second semester of private lessons designed for the student majoring in any area of music except performance (e.g., music education, music therapy, etc.). Two half-hour lessons a week.

MVPB 2321 Applied Principal Percussion III (T) 2 cr.
Prerequisite: MVPA 1411. Third semester of private lessons designed for the student majoring in any area of music except performance (e.g., music education, music therapy, etc.). Two half-hour lessons a week.

MVPB 3321 Applied Principal Percussion IV (T) 2 cr.
Prerequisite: MVPA 2321. Fourth semester of private lessons designed for the student majoring in any area of music except performance (e.g., music education, music therapy, etc.). Two half-hour lessons a week.

MVPA 1211 Secondary Percussion I (T) 1 cr.
Prerequisite: MVPA 1111. First semester of private lessons designed for music majors needing to gain proficiency on an instrument other than their principal or major. One half-hour lesson per week.

MVPA 2211 Applied Secondary Percussion I (T) 1 cr.
Prerequisite: MVPA 1111. Second semester of private lessons designed for music majors needing to gain proficiency on an instrument other than their principal or major. One half-hour lesson per week.

MVPA 2221 Applied Secondary Percussion II (T) 1 cr.
Prerequisite: MVPA 2211. Third semester of private lessons designed for the student majoring in any area of music except performance (e.g., music education, music therapy, etc.). Two half-hour lessons a week.

MVPA 1411 Major Percussion I (T) 3 cr.
Prerequisite: MVPA placement by audition before the music faculty. First semester of private lessons designed for the student majoring in performance. Two half-hour lessons a week.

MVPA 1411 Major Percussion II (T) 3 cr.
Prerequisite: MVPA 1411. Second semester of private lessons designed for the student majoring in performance. Two half-hour lessons a week.

MVPA 2421 Major Percussion III (T) 3 cr.
Prerequisite: MVPA 1411. Third semester of private lessons designed for the student majoring in performance. Two half-hour lessons a week.

MVPA 2421 Major Percussion IV (T) 3 cr.
Prerequisite: MVPA 2421. Fourth semester of private lessons designed for the student majoring in performance. Two half-hour lessons a week.

MVKA 1011 Applied Preparatory Piano I (T) 2 cr.
Prerequisite: Placement by audition before the music faculty. Private lessons designed for music majors whose background indicates a need for further preparation. One hour lesson per week.

MVKA 1011 Applied Preparatory Piano II (T) 2 cr.
Prerequisite: MVKA 1011. Second semester of private lessons designed for music majors whose background indicates a need for further preparation. One hour lesson per week.

MVKA 1311 Applied Piano I (T) 2 cr.
Prerequisite: Placement by audition before the music faculty. First semester of private lessons designed for the student majoring in any area of music except performance (e.g., music education, music therapy, etc.). Two half-hour lessons a week.

MVKA 2311 Applied Piano II (T) 2 cr.
Prerequisite: MVKA 1311. Second semester of private lessons designed for the student majoring in any area of music except performance (e.g., music education, music therapy, etc.). Two half-hour lessons a week.

MVKA 2321 Applied Piano III (T) 2 cr.
Prerequisite: MVKA 2311. Third semester of private lessons designed for the student majoring in any area of music except performance (e.g., music education, music therapy, etc.). Two half-hour lessons a week.

MVKA 2421 Applied Piano IV (T) 2 cr.
Prerequisite: MVKA 2421. Fourth semester of private lessons designed for the student majoring in any area of music except performance (e.g., music education, music therapy, etc.). Two half-hour lessons a week.

MVKA 1211 Secondary Piano I (T) 1 cr.
Prerequisite: Placement by audition before the music faculty. First semester of private lessons designed for music majors needing to gain proficiency on an instrument other than their principal or major. One half-hour lesson per week.

MVKA 2211 Secondary Piano II (T) 1 cr.
Prerequisite: MVKA 2211. Second semester of private lessons designed for music majors needing to gain proficiency on an instrument other than their principal or major. One half-hour lesson per week.

MVKA 2221 Secondary Piano III (T) 1 cr.
Prerequisite: MVKA 2211. Third semester of private lessons designed for the student majoring in any area of music except performance (e.g., music education, music therapy, etc.). Two half-hour lessons a week.

MVKA 1411 Major Piano I (T) 3 cr.
Prerequisite: Placement by audition before the music faculty. First semester of private lessons designed for the student majoring in performance. Two half-hour lessons a week.
MVKA 1411 Applied Major Piano II (T) 3 cr.
Prerequisite: MVKA 1411. Second semester of private lessons designed for the student majoring in performance. Two half-hour lessons a week.

MVKA 2421 Applied Major Piano III (T) 3 cr.
Prerequisite: MVKA 1411. Third semester of private lessons designed for the student majoring in performance. Two half-hour lessons a week.

MVKA 2421 Applied Major Piano IV (T) 3 cr.
Prerequisite: MVKA 2421. Fourth semester of private lessons designed for the student majoring in performance. Two half-hour lessons a week.

MVWA — Music: Woodwinds (Continued)

Saxophone

MVWA 1015 Applied Preparatory Saxophone I (T) 2 cr.
Prerequisite: Placement by audition before the music faculty. Private lessons designed for music majors whose background indicates a need for further preparation. One hour lesson per week.

MVWB 1015 Applied Preparatory Saxophone II (T) 2 cr.
Prerequisite: MVWA 1015. Second semester of private lessons designed for music majors whose background indicates a need for further preparation. One hour lesson per week.

MVWA 1315 Applied Principal Saxophone I (T) 2 cr.
Prerequisite: Placement by audition before the music faculty. First semester of private lessons designed for the student majoring in any area of music except performance (e.g. music education, music therapy, etc.). Two half-hour lessons a week.

MVWB 1315 Applied Principal Saxophone II (T) 2 cr.
Prerequisite: MVWA 1315. Second semester of private lessons designed for the student majoring in any area of music except performance (e.g. music education, music therapy, etc.). Two half-hour lessons a week.

MVWA 2325 Applied Principal Saxophone III (T) 2 cr.
Prerequisite: MVWB 1315. Third semester of private lessons designed for the student majoring in any area of music except performance (e.g. music education, music therapy, etc.). Two half-hour lessons a week.

MVWB 2325 Applied Principal Saxophone IV (T) 2 cr.
Prerequisite: MVWA 2325. Fourth semester of private lessons designed for the student majoring in any area of music except performance (e.g. music education, music therapy, etc.). Two half-hour lessons a week.

MVWA 1215 Applied Secondary Saxophone I (T) 1 cr.
Prerequisite: Placement by audition before the music faculty. First semester of private lessons designed for music majors needing to gain proficiency on an instrument other than their principal or major. One half-hour lesson per week.

MVWB 1215 Applied Secondary Saxophone II (T) 1 cr.
Prerequisite: MVWA 1215. Second semester of private lessons designed for music majors needing to gain proficiency on an instrument other than their principal or major. One half-hour lesson per week.

MVWA 2225 Applied Secondary Saxophone III (T) 1 cr.
Prerequisite: MVWB 1215. Third semester of private lessons designed for music majors needing to gain proficiency on an instrument other than their principal or major. One half-hour lesson per week.

MVWB 2225 Applied Secondary Saxophone IV (T) 1 cr.
Prerequisite: MVWA 2225. Fourth semester of private lessons designed for the student majoring in any area of music except performance (e.g. music education, music therapy, etc.). One half-hour lesson per week.

MVWA 1415 Applied Major Saxophone I (T) 3 cr.
Prerequisite: Placement by audition before the entire full-time faculty. First semester of private lessons designed for the student majoring in performance. Two half-hour lessons a week.

MVWB 1415 Applied Major Saxophone II (T) 3 cr.
Prerequisite: MVWA 1415. Second semester of private lessons designed for the student majoring in performance. Two half-hour lessons a week.

MVWA 2425 Applied Major Saxophone III (T) 3 cr.
Prerequisite: MVWA 1415. Third semester of private lessons designed for the student majoring in performance. Two half-hour lessons a week.

MVWB 2425 Applied Major Saxophone IV (T) 3 cr.
Prerequisite: MVWA 2425. Fourth semester of private lessons designed for the student majoring in performance. Two half-hour lessons a week.

MVSA — Music: Strings (Continued)

String Bass

MVSA 1014 Applied Preparatory String Bass I (T) 2 cr.
Prerequisite: Placement by audition before the music faculty. Private lessons designed for music majors whose background indicates a need for further preparation. One hour lesson a week.

MVSB 1014 Applied Preparatory String Bass II (T) 2 cr.
Prerequisite: MVSA 1014. Second semester of private lessons designed for music majors whose background indicates a need for further preparation. One hour lesson per week.

MVSA 1314 Applied Principal String Bass I (T) 2 cr.
Prerequisite: Placement by audition before the music faculty. First semester of private lessons designed for the student majoring in any area of music except performance (e.g. music education, music therapy, etc.). Two half-hour lessons a week.

MVSB 1314 Applied Principal String Bass II (T) 2 cr.
Prerequisite: MVSA 1314. Second semester of private lessons designed for the student majoring in any area of music except performance (e.g. music education, music therapy, etc.). Two half-hour lessons a week.

MVSA 2324 Applied Principal String Bass III (T) 2 cr.
Prerequisite: MVSB 1314. Third semester of private lessons designed for the student majoring in any area of music except performance (e.g. music education, music therapy, etc.). Two half-hour lessons a week.

MVSB 2324 Applied Principal String Bass IV (T) 2 cr.
Prerequisite: MVSA 2324. Fourth semester of private lessons designed for the student majoring in any area of music except performance (e.g. music education, music therapy, etc.). Two half-hour lessons a week.
MVSA 1214 Applied Secondary String Bass I (T) 1 cr.
Prerequisite: placement by audition before the music faculty. First semester of private lessons designed for music majors needing to gain proficiency on an instrument other than their principal or major. One half-hour lesson per week.

MVSA 1214 Applied Secondary String Bass II (T) 1 cr.
Prerequisite: MVSA 1214. Second semester of private lessons designed for music majors needing to gain proficiency on an instrument other than their principal or major. One half-hour lesson per week.

MVSA 2224 Applied Secondary String Bass III (T) 1 cr.
Prerequisite: MVSA 1214. Third semester of private lessons designed for music majors needing to gain proficiency on an instrument other than their principal or major. One half-hour lesson per week.

MVSA 2224 Applied Secondary String Bass IV (T) 1 cr.
Prerequisite: MVSA 2224. Fourth semester of private lessons designed for music majors needing to gain proficiency on an instrument other than their principal or major. One half-hour lesson per week.

MVSA 1414 Applied Major String Bass I (T) 3 cr.
Prerequisite: placement by audition before the entire full-time music faculty. First semester of private lessons designed for the student majoring in performance. Two half-hour lessons a week.

MVSA 1414 Applied Major String Bass II (T) 3 cr.
Prerequisite: MVSA 1414. Second semester of private lessons designed for the student majoring in performance. Two half-hour lessons a week.

MVSA 2424 Applied Major String Bass III (T) 3 cr.
Prerequisite: MVSA 1414. Third semester of private lessons designed for the student majoring in performance. Two half-hour lessons a week.

MVSA 2424 Applied Major String Bass IV (T) 3 cr.
Prerequisite: MVSA 2424. Fourth semester of private lessons designed for the student majoring in performance. Two half-hour lessons a week.

MVBA 2323 Applied Principal Trombone III (T) 2 cr.
Prerequisite: MVBA 2322. Third semester of private lessons designed for the student majoring in any area of music except performance (e.g., music education, music therapy, etc.). Two half-hour lessons a week.

MVBA 2323 Applied Principal Trombone IV (T) 2 cr.
Prerequisite: MVBA 2323. Fourth semester of private lessons designed for the student majoring in any area of music except performance (e.g., music education, music therapy, etc.). Two half-hour lessons a week.

MVBA 1213 Applied Secondary Trombone I (T) 1 cr.
Prerequisite: MVBA 1213. Third semester of private lessons designed for music majors needing to gain proficiency on an instrument other than their principal or major. One half-hour lesson per week.

MVBA 1213 Applied Secondary Trombone II (T) 1 cr.
Prerequisite: MVBA 1213. Second semester of private lessons designed for music majors needing to gain proficiency on a instrument other than their principal or major. One half-hour lesson per week.

MVBA 2223 Applied Secondary Trombone III (T) 1 cr.
Prerequisite: MVBA 1213. Third semester of private lessons designed for music majors needing to gain proficiency on an instrument other than their principal or major. One half-hour lesson per week.

MVBA 2223 Applied Secondary Trombone IV (T) 1 cr.
Prerequisite: MVBA 2223. Fourth semester of private lessons designed for the student majoring in performance (e.g., music education, music therapy, etc.). Two half-hour lessons a week.

MVBA 1413 Applied Major Trombone I (T) 3 cr.
Prerequisite: placement by audition before the entire full-time music faculty. First semester of private lessons designed for the student majoring in performance. Two half-hour lessons a week.

MVBA 1413 Applied Major Trombone II (T) 3 cr.
Prerequisite: MVBA 1413. Second semester of private lessons designed for the student majoring in performance. Two half-hour lessons a week.

MVBA 2423 Applied Major Trombone III (T) 3 cr.
Prerequisite: MVBA 1413. Third semester of private lessons designed for the student majoring in performance. Two half-hour lessons a week.

MVBA 2423 Applied Major Trombone IV (T) 3 cr.
Prerequisite: MVBA 2423. Fourth semester of private lessons designed for the student majoring in performance. Two half-hour lessons a week.

MVB — Music: Brasses (Continued)

Trombone

MVBA 1013 Applied Preparatory Trombone I (T) 2 cr.
Prerequisite: placement by audition before the music faculty. Private lessons designed for music majors whose background indicates a need for further preparation. One hour lesson a week.

MVBA 1013 Applied Preparatory Trombone II (T) 2 cr.
Prerequisite: MVBA 1013. Second semester of private lessons designed for music majors whose background indicates a need for further preparation. One hour lesson per week.

MVBA 1313 Applied Principal Trombone I (T) 2 cr.
Prerequisite: placement by audition before the music faculty. First semester of private lessons designed for the student majoring in any area of music except performance (e.g., music education, music therapy, etc.). Two half-hour lessons a week.

MVBA 1313 Applied Principal Trombone II (T) 2 cr.
Prerequisite: MVBA 1111. Second semester of private lessons designed for the student majoring in any area of music except performance (e.g., music education, music therapy, etc.). Two half-hour lessons a week.

MVB — Music: Brasses (Continued)

Trumpet

MVBA 1011 Applied Preparatory Trumpet I (T) 2 cr.
Prerequisite: placement by audition before the music faculty. Private lessons designed for music majors whose background indicates a need for further preparation. One hour lesson a week.

MVBA 1011 Applied Preparatory Trumpet II (T) 2 cr.
Prerequisite: MVBA 1011. Second semester of private lessons designed for music majors whose background indicates a need for further preparation. One hour lesson per week.
MVBA 1311 Applied Principal Trumpet I (T) 2 cr.
Prerequisite: placement by audition before the music faculty. First
semester of private lessons designed for the student majoring in any
area of music except performance (e.g., music education, music
therapy, etc.). Two half-hour lessons a week.

MVBB 1311 Applied Principal Trumpet II (T) 2 cr.
Prerequisite: MVBA 1311. Second semester of private lessons
designed for the student majoring in any area of music except
performance (e.g., music education, music therapy, etc.). Two half-
hour lessons a week.

MVBB 2211 Applied Principal Trumpet III (T) 2 cr.
Prerequisite: MVBB 1311. Third semester of private lessons
designed for the student majoring in any area of music except perfor-
mance (e.g., music education, music therapy, etc.). Two half-
hour lessons a week.

MVBB 2321 Applied Principal Trumpet IV (T) 2 cr.
Prerequisite: MVBB 2211. Fourth semester of private lessons
designed for the student majoring in any area of music except
performance (e.g., music education, music therapy, etc.). Two half-
hour lessons a week.

MVBA 1211 Applied Secondary Tuba I (T) 1 cr.
Prerequisite: placement by audition before the music faculty. First
semester of private lessons designed for music majors needing to gain
proficiency on an instrument other than their principal or major. One
half-hour lesson per week.

MVBB 1211 Applied Secondary Tuba II (T) 1 cr.
Prerequisite: MVBA 1211. Second semester of private lessons
designed for music majors needing to gain proficiency on an instru-
ment other than their principal or major. One half-hour lesson per
week.

MVBB 2221 Applied Secondary Tuba III (T) 1 cr.
Prerequisite: MVBB 1211. Third semester of private lessons
designed for music majors needing to gain proficiency on an instru-
ment other than their principal or major. One half-hour lesson per
week.

MVBB 2221 Applied Secondary Tuba IV (T) 1 cr.
Prerequisite: MVBB 2221. Fourth semester of private lessons
designed for the student majoring in any area of music except perfor-
mance (e.g., music education, music therapy, etc.). Two half-
hour lessons a week.

MVBA 1411 Applied Major Tuba I (T) 3 cr.
Prerequisite: placement by audition before the entire full-time
music faculty. First semester of private lessons designed for the
student majoring in performance. Two half-hour lessons a week.

MVBA 1411 Applied Major Tuba II (T) 3 cr.
Prerequisite: MVBA 1411. Second semester of private lessons
designed for the student majoring in performance. Two half-hour
lessons a week.

MVBA 2421 Applied Major Tuba III (T) 3 cr.
Prerequisite: MVBA 1411. Third semester of private lessons
designed for the student majoring in performance. Two half-hour
lessons a week.

MVBB 2421 Applied Major Tuba IV (T) 3 cr.
Prerequisite: MVBA 2421. Fourth semester of private lessons
designed for the student majoring in performance. Two half-hour
lessons a week.

MVBA — Music: Brass (continued)

MVBA 1013 Applied Preparatory Tuba I (T) 2 cr.
Prerequisite: placement by audition before the music faculty. Pri-
vate lessons designed for music majors whose background indicates a
need for further preparation. One hour lesson per week.

MVBA 1014 Applied Preparatory Tuba II (T) 2 cr.
Prerequisite: MVBA 1013. Second semester of private lessons
designed for music majors whose background indicates a need for
further preparation. One hour lesson per week.

MVBA 1317 Applied Principal Tuba I (T) 2 cr.
Prerequisite: Placement by audition before the music faculty. First
semester of private lessons designed for the student majoring in any
area of music except performance (e.g., music education, music
therapy, etc.). Two half-hour lessons a week.

MVBA 1215 Applied Principal Tuba II (T) 2 cr.
Prerequisite: MVBA 1315. Second semester of private lessons
designed for the student majoring in any area of music except perfor-
mance (e.g., music education, music therapy, etc.). Two half-
hour lessons a week.

MVBA 2325 Applied Principal Tuba III (T) 2 cr.
Prerequisite: MVBA 1315. Third semester of private lessons
designed for the student majoring in any area of music except perfor-
mance (e.g., music education, music therapy, etc.). Two half-
hour lessons a week.

MVBA 2325 Applied Principal Tuba IV (T) 2 cr.
Prerequisite: MVBA 2325. Fourth semester of private lessons
designed for the student majoring in any area of music except perfor-
mance (e.g., music education, music therapy, etc.). Two half-
hour lessons a week.

MVBA 1215 Applied Secondary Tuba I (T) 1 cr.
Prerequisite: MVBA 1215. Placement by audition before the music
faculty. First semester of private lessons designed for music majors needing to gain
proficiency on an instrument other than their principal or major. One
half-hour lesson per week.

MVBA 1215 Applied Secondary Tuba II (T) 1 cr.
Prerequisite: MVBA 1215. Second semester of private lessons
designed for music majors needing to gain proficiency on an instru-
ment other than their principal or major. One half-hour lesson per
week.

MVBA 2225 Applied Secondary Tuba III (T) 1 cr.
Prerequisite: MVBA 2225. Third semester of private lessons
designed for music majors needing to gain proficiency on an instru-
ment other than their principal or major. One half-hour lesson per
week.

MVBA 2225 Applied Secondary Tuba IV (T) 1 cr.
Prerequisite: MVBA 2225. Fourth semester of private lessons
designed for the student majoring in any area of music except perfor-
mance (e.g., music education, music therapy, etc.). Two half-
hour lessons a week.
designated for the student majoring in performance. Two half-hour lessons a week.

**MVS 2222 Applied Secondary Viola III (T)** 1 cr.
Prerequisite: MVS 2221. Fourth semester of private lessons designed for the student majoring in any area of music except performance (e.g., music education, music therapy, etc.). Two half-hour lessons a week.

**MVS 2222 Applied Secondary Viola IV (T)** 1 cr.
Prerequisite: MVS 2222. Fourth semester of private lessons designed for the student majoring in any area of music except performance (e.g., music education, music therapy, etc.). Two half-hour lessons a week.

**MVS 1111 Applied Preparatory Violin I (T)** 2 cr.
Prerequisite: placement by audition before the music faculty. First semester of private lessons designed for the student majoring in any area of music except performance (e.g., music education, music therapy, etc.). Two half-hour lessons a week.

**MVS 1111 Applied Preparatory Violin II (T)** 2 cr.
Prerequisite: MVS 1111. Second semester of private lessons designed for the student majoring in any area of music except performance (e.g., music education, music therapy, etc.). Two half-hour lessons a week.

**MVS 1111 Applied Preparatory Violin III (T)** 2 cr.
Prerequisite: MVS 1112. Third semester of private lessons designed for the student majoring in any area of music except performance (e.g., music education, music therapy, etc.). Two half-hour lessons a week.

**MVS 1111 Applied Preparatory Violin IV (T)** 2 cr.
Prerequisite: MVS 1113. Fourth semester of private lessons designed for the student majoring in any area of music except performance (e.g., music education, music therapy, etc.). Two half-hour lessons a week.

**MVS 1111 Applied Preparatory Violin V (T)** 2 cr.
Prerequisite: MVS 1114. Fifth semester of private lessons designed for the student majoring in any area of music except performance (e.g., music education, music therapy, etc.). Two half-hour lessons a week.

**MVS 1111 Applied Preparatory Violin VI (T)** 2 cr.
Prerequisite: MVS 1115. Sixth semester of private lessons designed for the student majoring in any area of music except performance (e.g., music education, music therapy, etc.). Two half-hour lessons a week.

**MVS 1111 Applied Preparatory Violin VII (T)** 2 cr.
Prerequisite: MVS 1116. Seventh semester of private lessons designed for the student majoring in any area of music except performance (e.g., music education, music therapy, etc.). Two half-hour lessons a week.

**MVS 1111 Applied Preparatory Violin VIII (T)** 2 cr.
Prerequisite: MVS 1117. Eighth semester of private lessons designed for the student majoring in any area of music except performance (e.g., music education, music therapy, etc.). Two half-hour lessons a week.

**MVS 1111 Applied Preparatory Violin IX (T)** 2 cr.
Prerequisite: MVS 1118. Ninth semester of private lessons designed for the student majoring in any area of music except performance (e.g., music education, music therapy, etc.). Two half-hour lessons a week.

**MVS 1111 Applied Preparatory Violin X (T)** 2 cr.
Prerequisite: MVS 1119. Tenth semester of private lessons designed for the student majoring in any area of music except performance (e.g., music education, music therapy, etc.). Two half-hour lessons a week.

**MVS 1111 Applied Preparatory Violin XI (T)** 2 cr.
Prerequisite: MVS 1120. Eleventh semester of private lessons designed for the student majoring in any area of music except performance (e.g., music education, music therapy, etc.). Two half-hour lessons a week.

**MVS 1111 Applied Preparatory Violin XII (T)** 2 cr.
Prerequisite: MVS 1121. Twelfth semester of private lessons designed for the student majoring in any area of music except performance (e.g., music education, music therapy, etc.). Two half-hour lessons a week.
proficiency on an instrument other than their principal or major. One half-hour lesson per week.

MVSA 2211 Applied Secondary Violin II (T) 1 cr.
Prerequisite: MVSA 2111. Second semester of private lessons designed for music majors needing to gain proficiency on an instrument other than their principal or major. One half-hour lesson per week.

MVSA 2221 Applied Secondary Violin III (T) 1 cr.
Prerequisite: MVSA 2211. Third semester of private lessons designed for music majors needing to gain proficiency on an instrument other than their principal or major. One half-hour lesson per week.

MVSA 2221 Applied Secondary Violin IV (T) 1 cr.
Prerequisite: MVSA 2221. Fourth semester of private lessons designed for the student majoring in any area of music except performance (e.g., music education, music therapy, etc.). Two half-hour lessons a week.

MVSA 1411 Applied Major Violin I (T) 3 cr.
Prerequisite: placement by audition before the entire full-time music faculty. First semester of private lessons designed for the student majoring in performance. Two half-hour lessons a week.

MVSA 1411 Applied Major Violin II (T) 3 cr.
Prerequisite: MVSA 1411. Second semester of private lessons designed for the student majoring in performance. Two half-hour lessons a week.

MVSA 2421 Applied Major Violin III (T) 3 cr.
Prerequisite: MVSA 1411. Third semester of private lessons designed for the student majoring in performance. Two half-hour lessons a week.

MVSA 2421 Applied Major Violin IV (T) 3 cr.
Prerequisite: MVSA 2421. Fourth semester of private lessons designed for the student majoring in performance. Two half-hour lessons a week.

MVV — Music: Voice (Continued)

MVVA 111 Applied Preparatory Voice I (T) 2 cr.
Prerequisite: placement by audition before the music faculty. Private lessons designed for music majors whose background indicates a need for further preparation. One hour lesson per week.

MVVA 111 Applied Preparatory Voice II (T) 2 cr.
Prerequisite: MVVA 111. Second semester of private lessons designed for music majors whose background indicates a need for further preparation. One hour lesson per week.

MVVA 1311 Applied Principal Voice I (T) 2 cr.
Prerequisite: placement by audition before the music faculty. First semester of private lessons designed for the student majoring in any area of music except performance (e.g., music education, music therapy, etc.). Two half-hour lessons a week.

MVVA 1311 Applied Principal Voice II (T) 2 cr.
Prerequisite: MVVA 1311. Second semester of private lessons designed for the student majoring in any area of music except performance (e.g., music education, music therapy, etc.). Two half-hour lessons a week.

MVVA 2321 Applied Principal Voice III (T) 2 cr.
Prerequisite: MVVA 1311. Third semester of private lessons designed for the student majoring in any area of music except performance (e.g., music education, music therapy, etc.). Two half-hour lessons a week.

MVVA 2321 Applied Principal Voice IV (T) 2 cr.
Prerequisite: MVVA 2321. Fourth semester of private lessons designed for the student majoring in any area of music except performance (e.g., music education, music therapy, etc.). Two half-hour lessons a week.

MVVA 1211 Applied Secondary Voice I (T) 1 cr.
Prerequisite: placement by audition before the music faculty. First semester of private lessons designed for music majors needing to gain proficiency on an instrument other than their principal or major. One half-hour lesson a week.

MVVA 1211 Applied Secondary Voice II (T) 1 cr.
Prerequisite: MVVA 1211. Second semester of private lessons designed for music majors needing to gain proficiency on an instrument other than their principal or major. One half-hour lesson a week.

MVVA 2221 Applied Secondary Voice III (T) 1 cr.
Prerequisite: MVVA 2211. Third semester of private lessons designed for music majors needing to gain proficiency on an instrument other than their principal or major. One half-hour lesson a week.

MVVA 2221 Applied Secondary Voice IV (T) 1 cr.
Prerequisite: MVVA 2221. Fourth semester of private lessons designed for the student majoring in any area of music except performance (e.g., music education, music therapy, etc.). Two half-hour lessons a week.

MVVA 1411 Applied Major Voice I (T) 3 cr.
Prerequisite: placement by audition before the entire full-time music faculty. First semester of private lessons designed for the student majoring in performance. Two half-hour lessons a week.

MVVA 1411 Applied Major Voice II (T) 3 cr.
Prerequisite: MVVA 1411. Second semester of private lessons designed for the student majoring in performance. Two half-hour lessons a week.

MVVA 2421 Applied Major Voice III (T) 3 cr.
Prerequisite: MVVA 1411. Third semester of private lessons designed for the student majoring in performance. Two half-hour lessons a week.

MVVA 2421 Applied Major Voice IV (T) 3 cr.
Prerequisite: MVVA 2421. Fourth semester of private lessons designed for the student majoring in performance. Two half-hour lessons a week.

NUR — Nursing Practice and Theory

NUR 1000C Transitional Nursing Process I 12 cr.
Prerequisites: APB 1090C, APB 1091C, MCB 204C, ENC 1101, ENC 1102, PSY 102, DCP 2004 and any of the following: SPG 2200. Humanities (Refer to AS degree General Education requirements), Social Science (Refer to AS degree General Education requirements). This course, designed for and limited to the Florida Licensed Practical Nurse, encompasses a review of fundamental concepts of health needs, assessment, patient teaching and drug administration. This course includes basic principles of mental health, communication, family and patient teaching, with emphasis placed on reorientation of the nurse's role within the framework of the nursing process. This
Course: utilizes simulated and actual nursing care work experience for application of theoretical concepts. Student receives evaluation in selected clinical skills in the campus nursing laboratory. Nineteen contact hours: five lecture hours; fourteen laboratory hours.

NUR 101: Nursing Process I—Fundamentals of Nursing (10 cr.)
Prerequisites: APB 213/C. Nursing 1 is a study of the principles and techniques that form the foundation for nursing care. The nursing process-assessing, planning, implementing, evaluating—serve as the framework for the application of content with emphasis on nursing interventions and adaptations for specific age groups to meet the basic needs of man in health maintenance. Content and experiences focus on observation, communication, the interpersonal process, recording, hygiene practices, administration of drugs, symptoms, nutrition, elimination, fluid balance and oxygen. The course introduces current trends and legal implications of nursing. Fifteen contact hours: five class periods, ten hours of laboratory experience on campus, in community hospitals and other health agencies.

NUR 121: Nursing Process II—Medical-Surgical Nursing (10 cr.)
Prerequisites: NUR 101; Corequisites: DLP 201. With Nursing 1 as a foundation, this course covers the content from the basic patient needs in health maintenance to health problems which require new knowledge and application to the patient's development and the physical and psychological needs of the patient. The course places emphasis on the essential knowledge, understanding, and skills necessary to the nursing care of patients with medical and surgical conditions, and upon the interpersonal process. This course continues the four steps of the nursing process with a higher level of performance expected of the student. Sixteen contact hours: four class hours, twelve hours of laboratory experience for 16 weeks on campus, in community hospitals and other health agencies.

NUR 171:CON Traditional Nursing 1 (6 cr.)
Prerequisite: NUR 1000. A continuation of NUR 1000, this course, designed for and limited to the Florida Licensed Practical Nurse, introduces the student to the use of the nursing process in the rapidly evolving role when interacting with clients having interpersonal and psychological needs. The course emphasizes demonstration of knowledge, comprehension, application and analysis of the nursing process and includes drug and diet therapy. The course utilizes situational and actual nursing experiences to theoretical concepts and validates clinical skills in the campus nursing laboratory. Eight contact hours: four lecture hours, four laboratory hours (on campus lab or clinical facility).

NUR 231: Nursing Process IIIB — Nursing Care of Children (7 cr.)
Prerequisites: NUR 131C; Corequisites: MCB 201C, NUR 242C. Weekly Nursing 1 and II as a basis. Nursing IIIB encompasses the study of physical and psychological problems of children from infancy through adolescence. This course uses the family-centered approach for learning the skills needed in care of each child. Pediatric nursing supports the belief that children, by nature of their growth and development, physical and emotional immaturity, have needs in health and illness different from those of adults. Through the utilization of the nursing process and the interpersonal process, this course also teaches the student to apply knowledge of pediatric nursing in the solving of the common health problems associated with the child. Nineteen contact hours: five class hours, twelve hours of laboratory experience for 7.5 weeks on campus, in community hospitals and other health agencies.

NUR 242: Nursing Process IIIA—Nursing Care of the Childbearing Family (6 cr.)
Prerequisites: NUR 121C, APB 213C. Corequisites: MCB 213C, NUR 231C. With Nursing I and II as a basis, nursing IIIA encompasses the childbearing cycle as an adaptation of the state of wellness and continues through the neonatal stage of development. Nursing the childbearing family focuses on gynecologic interventions with families who are experiencing the stresses of the childbearing period. The nursing care of the childbearing family given by the student nurse relies on the belief that special needs and problems occurring during pregnancy are interrelated with the physical and psychological needs of the childbearing family. This course also covers the uncomplicated and the complicated pregnancy, the focus being on the common, recurring problems of this period. Laboratory experiences occur in community hospitals and other health agencies. Nineteen contact hours: five class hours, fourteen hours of laboratory experience for 3.5 weeks on campus, in community hospitals and other health agencies.

NUR 2521: Nursing Process IVB—Psychiatric Nursing (7 cr.)
Prerequisites: NUR 242C, NUR 231A; Corequisite: NUR 273C. This 4-week course will be based on the mental health concepts presented in each of the previous nursing courses. In varied clinical settings, this course emphasizes the use of the nursing process in the care of adolescent and adult clients with diverse patterns of behavior. Nineteen contact hours: five lecture hours, fourteen hours of laboratory experience (four weeks).

NUR 273: Nursing Process IVB—Medical-Surgical Nursing Care of the Adult Patient (9 cr.)
Prerequisites: NUR 242C, NUR 231A; Corequisite: NUR 252C. This 11-week course is a continuation of the study of common nursing health problems of patients from the young adult years through the presence. It also focuses on the illness side of the continuum. The nursing process will serve as the basis for nursing care. The student will give nursing care to patients with medical-surgical deviations. Learning experiences will develop opportunities to utilize previously acquired knowledge and skills in giving nursing care and increasing as a team member. Recognizing the special status and needs of the geriatric patient, this course includes the special experience in this unit of study. Twenty contact hours: four class hours, 16 hours of laboratory experience (eleven weeks).

OCB — Oceanography, Biological

OCB 200: Fundamentals of Marine Biology (7 cr.)
The student will benefit by taking BSC 210C and High School Chemistry, Physics, or CMH 1000C prior to enrolling in this course. This course consists of an introduction to marine organisms with emphasis on the local flora and fauna. Laboratory includes collection and identification of marine organisms. Six contact hours: three lecture hours; three laboratory hours.

OCG — Oceanography, General

OCG 201: Survey of Oceanography (5 cr.)
Prerequisite: MAT 103; Corequisite: MAC 1104 and OCE 201. The student will benefit by taking high school chemistry and physics prior to enrolling in this course. This course consists of an introductory, comprehensive treatment of physical, chemical, and geological aspects of our oceans. Three contact hours.

OCG 200: Oceanography Laboratory (1 cr.)
Corequisite: OCG 201. This is a laboratory course intended to supplement OCE 201, Survey of Oceanography, and includes field trips for application of oceanographic techniques. Three contact hours; three laboratory hours.
ORII — Ornamental Horticulture

ORII 100CR Exterior and Interior Landscaping (T) 3 cr.
This course provides the student with a basic overview of exterior and interior landscaping. Topics include site analysis, selection of plants, lighting requirements and maintenance. Differences between commercial and residential adaptations will be explored. Special emphasis will be given to the North Florida growing season. Three contact hours.

ORI — Oral Interpretation

ORI 2000 Oral Interpretation (T) 3 cr.
This course consists of critical analysis and appreciation of literature from both the emotional and the intellectual viewpoint. Designed to enhance the student’s appreciation of words, ideas, and beauty in all forms of literature, this course involves the discussion and application of the techniques of oral reading of poetry, prose, and drama. Three contact hours.

OST — Office Systems Technology

OST 1100 Beginning Typewriting (T) 3 cr.
The major objectives of the course, designed for the student who has little or no typing experience, are to learn the keyboard and to develop correct typing technique. The course introduces horizontal and vertical centering, letters, simple forms, and reports. Students who have satisfactorily completed one year of high school typewriting should enroll in OST 1110. Three contact hours.

OST 1110 Intermediate Typewriting (T) 3 cr.
Prerequisite: OST 1100 or one year of high school typewriting. This course is designed for students who have learned correct keyboarding techniques, emphasizes speed building and the application of basic skills to business letters, memoranda, reports, tables, and forms. Students who have satisfactorily completed two years of high school typewriting should enroll in OST 1120. Three contact hours.

OST 1211 Beginning Shorthand (T) 3 cr.
Corerequisite: OST 1100. This is a beginning course which includes all principles of Gregg Shorthand with some dictation and transcription practice. Students with no typewriting skill should take OST 1100 concurrently with OST 1211. Students who have satisfactorily completed one year of high school shorthand should enroll in OST 1212. Three contact hours.

OST 1212 Intermediate Shorthand (T) 3 cr.
Prerequisite: OST 1211 or ability to take dictation at 50 words per minute for two minutes. Corerequisite: OST 1100 or ability to type 25 words per minute on straight copy. This course is a continuation of Gregg Shorthand with increased practice in dictation and transcription. Three contact hours.

OST 1224 Business Mathematics Using Calculators (T) 3 cr.
Prerequisite: Satisfactory score on placement test. This course consists of a mathematical treatment of financial problems arising in modern business. The principal purpose of this course is to review the fundamental processes (addition, subtraction, multiplication, and division) while developing the necessary arithmetic skills in handling business transactions. The course covers percentages, simple and compound interest, inventories, depreciation, payroll, commissions, taxes, errors, and other business-related topics. Three contact hours.

OST 1401 Office Systems I 3 cr.
Prerequisite: OST 1100 or ability to type 25 words per minute.

OST 1601 Machine Transcription I (T) 3 cr.
Prerequisite: ENG 1102 or satisfactory score on placement test. OST 1100 or ability to type 25 words a minute. This course integrates beginning transcription and keyboarding techniques with the development of reading, learning, and proofreading skills. This course includes the study of word usage skills, formatting, punctuation, capitalization, number usage, grammar, and sentence structure. Three contact hours.

OST 1711 Word Processing I (T) 3 cr.
Prerequisite: OST 1100 or ability to type 40 words a minute for five minutes on straight copy. This course includes concepts of word processing and applications on word-processing equipment. It covers the creation and revision of documents, stored text, and the use of special features. Three contact hours.

OST 2120 Advanced Typewriting (T) 3 cr.
Prerequisite: OST 1100 or ability to type 40 words a minute for five minutes on straight copy. This course emphasizes production typing of office correspondence, cables, reports, forms, and special documents. Simulated office materials are utilized and multiple or double copy is expected. Three contact hours.

OST 2131 Advanced Typewriting — Legal 3 cr.
Prerequisite: OST 1100 or ability to type 45 words a minute for five minutes on straight copy. This course is designed to give secretarial science students background in the field of legal typing as well as shorthand and refine the skills of the legal secretary with emphasis on real estate, litigation, wills, estates, and guardianships, and partnerships and separations. Three contact hours.

OST 2135 Advanced Typewriting — Medical 3 cr.
Prerequisite: OST 1100 or ability to type 45 words a minute for five minutes on straight copy. This is an advanced typewriting course designed to give secretarial science students background and practice in medical terminology, special forms, and forms that students need to know for employment as a medical secretary, assistant, etc. Three contact hours.

OST 2213 Advanced Shorthand (T) 3 cr.
Prerequisite: OST 1212 or ability to take dictation at 60 words per minute for three minutes. This course reviews Gregg Shorthand theory and develops the ability to take dictation and transcribe accurately. Students who have studied other shorthand systems must have consent of professor before taking course. Three contact hours.

OST 2335 Business Communications (T) 3 cr.
Prerequisite: ENG 1101 or consent of professor, and the ability to type. This course introduces the student to the use of effective business communications and the development of adequate grammar, punctuation, and vocabulary with extensive practice given in business letter writing. Three contact hours.

OST 2402 Office Systems II (T) 3 cr.
Prerequisite: OST 1401. This course is a continuation of Office Systems I with an in-depth review of the information processing cycle. Planning, organizing, decision making, and career development skills will be emphasized. Three contact hours.
OST 2610 Office Systems Management (T) 3 cr.
This course applies management principles to planning and controlling office systems. Emphasis is given to organization of office operations, control of office resources, leadership and motivation of office personnel, office automation, and design of business information systems. Three contact hours.

OST 2602 Machine Transcription II 3 cr.
Prerequisites: OST 1501. Prerequisite or Corequisite: OST 1110. This course is a continuation of OST 1501 and provides a simulation of office tasks and the student in attaining competency in transcribing from machine dictation, properly and accurately using language arts in formatting office papers, and the effective use of office technology. Three contact hours.

OST 2712 Word Processing II (T) 3 cr.
Prerequisite: OST 1711. This course, covering word processing concepts and applications, is a continuation of OST 1711. It emphasizes tables, special functions, and files. Three contact hours.

PG3 — Process (Cell and Molecular) Biology

PGC 2013 General Ecology (T) 3 cr.
Prerequisites: Suggested, successfully complete a biological or a physical science course. This is a course designed to enhance the student's understanding and comprehension of the environment and its interrelatedness. The course provides an analysis of the interrelationships of the physical and biological factors in natural communities stressing mutual interaction and impact on these ecosystems. Three contact hours.

PHYSICAL EDUCATION

Acts (General) — Object Centered, Land

PEL 1011 Recreational Games (T) 1 cr.
This course introduces the student to the basic skills, rules, and strategy of a variety of recreational games, such as table tennis, deck quoits, horseshoes, paddle tennis and croquet, etc. Two contact hours (activity).

PEL 1111 Beginning Bowling (T) 1 cr.
This course is designed to teach the basic skills, techniques, and knowledge necessary for bowling enjoyment. Two contact hours (activity).

PEL 1121 Beginning Golf (T) 1 cr.
This beginner course teaches the basic golf swing and its application to various shots. The course also includes golf etiquette, rules, and ball and equipment. Two contact hours (activity).

PEL 1211 Softball (T) 1 cr.
This course, designed for students who wish to broaden their knowledge of softball and improve their game skills, emphasizes the history of the game, rules, fundamentals, game skills and strategies. Two contact hours (activity).

PEL 1321 Volleyball (T) 1 cr.
This course teaches the fundamental skills, strategy and knowledge necessary for game and tournament participation. Two contact hours (activity).

PEL 1341 Beginning Tennis (T) 1 cr.
This introductory course covers the history, scoring, game strategy, and basic skills, which include forehand, backhand and drop shots, serve, volley and lob. Two contact hours (activity).

PEL 1342 Intermediate Tennis (T) 1 cr.
The student will benefit by taking PEL 1341 prior to enrolling in PEL 1342. This course is designed for students who have acquired the basic skills and strategy of tennis and desire to improve their tennis game. Two contact hours (activity).

PEL 1385 Beginning Badminton (T) 1 cr.
This course covers the history, scoring, basic skills and game strategy of badminton. It also consists of appropriate class tournaments. Two contact hours (activity).

PEL 1511 Soccer (T) 1 cr.
This course introduces the student to the basic skills, techniques, rules, game play and knowledge of soccer. Two contact hours (activity).

PEL 1622 Advanced Basketball (T) 1 cr.
This course, designed for each skill in basketball, includes instruction in offensive and defensive fundamentals, strategy, and rules as well as application in game situations. Two contact hours (activity).

PEL 2322 Advanced Volleyball (T) 1 cr.
This course introduces power volleyball techniques, serves, and strategy to the student interested in either the competitive or recreational aspect of the game. Two contact hours (activity).

PELM — Physical Education Acts (General) — Performance Centered, Land

PELM 1101 Physical Conditioning (T) 1 cr.
This course, designed to assist men and women in becoming stronger, more flexible, better coordinated and more athletic, includes a program of planned activities such as selected exercises, use of the Universal Gym set, dribbling and passing, jumping, and running. Two contact hours (activity).

PELM 1102 Circuit Training (T) 1 cr.
This course reviews a planned fitness training program to increase muscular strength and endurance through a planned series of exercises. Two contact hours (activity).

PELM 1301 Track and Field Events (T) 1 cr.
The course includes an introduction to the basic skills and knowledge involved in sprinting, distance running, relays, and hurdles. Two contact hours (activity).

PEN — Physical Education Acts (General) — Water, Snow, Ice

PEN 1136 Underwater Diving Skills (SCUBA) (T) 3 cr.
Student must pass a swimming test prior to acceptance into the course and will benefit by taking MAT 0024 prior to enrolling in PEN 1136. The course includes an introduction to the basic skills and knowledge necessary for water activities. Two contact hours; three instructional lab hours; one scheduled lab session per week (open water dives).

PEO — Physical Education Acts (Professional) — Object Centered, Land

PEO 2033 Sports Officiating (T) 3 cr.
This course is designed to acquaint the student with the techniques of officiating certain, individual, and dual sports, covers baseball,
basketball, track and field, volleyball, tennis, and handball. Three contact hours.

PET — Physical Education Theory

PET 200C Introduction to Physical Education (T) 3 cr.
This course, designed for students interested in physical education as a profession, examines the plane, function, and contribution of physical education within the total educational program. It also includes consideration of the history, philosophy, and problems of physical education. Three contact hours.

PGY — Photography

PGY 1101C Photography I
See page 105 of college catalog

PGY 1102C Photography II
See page 105 of college catalog

PHI — Philosophy

PHI 2010 Introduction to Philosophy (T) 3 cr.
Prerequisite: ENC 1101 or satisfactory score on placement test.
This course consists of an introduction to philosophical issues organized, for the most part, on a historical basis. The student encounters some of the perennial problems of philosophy and the types of answers that have been suggested by studying the thought of selected philosophers. This course includes reading and writing competencies. Three contact hours.

PHI 2100 Introduction to Logic (T) 3 cr.
This course provides a general introduction to logic that combines approximately equal emphasis on the rules and methods of deductive reasoning and inductive reasoning. Some primary objectives are to provide students with an appreciation of the extent and limitations of human knowledge and with tools for valid reasoning and critical thinking. Three contact hours.

PHI 2600 Moral And Political Philosophy (T) 3 cr.
Prerequisite: ENC 1101 or satisfactory score on placement test.
This course is a survey of the ideas by philosophers who have addressed those questions of experience which is concerned with human values and obligations. The course consists, primarily, of the analysis of selected writings in which philosophers attempt to do such things as characterize the most satisfactory life, specify the basis of moral responsibility, determine the testability of moral judgments, and assess the proper relation between the individual and the state. This course includes reading and writing competencies. Three contact hours.

PHYS — Physics

PHYS 1020 Physics for Liberal Arts (T) 3 cr.
The student will benefit by taking high school algebra or MAT 0820 prior to enrolling in PHYS 1020. This course is a general education course for the non-science student and not for one who is planning to major in physics or other sciences. It is a survey of the physical environment as applied to mechanics, electricity and magnetism and modern physics. Three contact hours.

PHYS 2040C Physics I with Calculus (T) 4 cr.
Prerequisite: MAC 1121. This course, designed for students majoring in physics, chemistry, and engineering with above-average mathematical background, includes mechanics, heat, thermodynamics, and waves (mechanical, sound, etc.) Laboratory work will illustrate important principles and develop techniques. This course uses the calculus in the subject matter presentations in the development of problem solving abilities. Six contact hours: three lecture hours, three laboratory hours.

PHYS 2049C Physics II with Calculus (T) 4 cr.
Prerequisite: PHYS 2048C. This course, a continuation of PHYS 2048C, includes electricity, magnetism, light and some areas of modern physics. Laboratory work is similar to and a continuation of the laboratory in PHYS 2048C. Six contact hours: three lecture hours, three laboratory hours.

PHYS 2053C General Physics I (T) 4 cr.
Prerequisite: MAC 1104. This course, designed for students who are majoring in pre-med, pre-dental, pre-veterinary, biological sciences, and biology, includes problem solving abilities. Subject matter includes mechanics, heat, and thermodynamics. Six contact hours: three lecture hours, three laboratory hours.

PHYS 2054C General Physics II (T) 4 cr.
Prerequisite: PHYS 2053C. This course, a continuation of PHYS 2053C, includes electricity, magnetism, light, waves (sound, light, and so forth), and some areas of modern physics. Laboratory work is similar to and a continuation of the laboratory in PHYS 2053C. Six contact hours: three lecture hours, three laboratory hours.

POS — Political Science

POS 2011 American Federal Government (T) 3 cr.
This course consists of a study of the theory, organization, principles, and functioning of the Federal Government, emphasizing the relationship of the individual to the government. Three contact hours.

POS 2112 State and Local Government (T) 3 cr.
This course consists of a study of state and local forms of government in the United States and explores government of Florida as an example of activities and patterns of state government. In addition, the course examines the responsibilities of local government at county and city levels. Three contact hours.

PSC — Physical Science

PSC 1341 Physical Science (T) 5 cr.
The student will benefit by taking high school algebra or MAT 0826 prior to enrolling in PSC 1341. This course acquaints the individual with the development of the physical sciences, with the integrating principles and theories in the physical sciences, with the practice of the scientific method, and with a useful knowledge of selected areas in mechanics, electricity and magnetism, periodicity and atomic structure, and nuclear phenomena. Presentation involves lectures, demonstrations, and films. The course is not essentially an introductory or preparatory course for any specific physical sciences. Three contact hours.

PSY — Psychology

PSY 1012 General Psychology (T) 3 cr.
This course consists of an analysis of human behavior through the study of the adaptation of the individual to the physical and social environment. Three contact hours.

REA — Reading

REA 0010 Developmental Reading (College Preparatory Course) 3 cr.
This course, designed to develop each student's reading skills, emphasizes the basic reading skills. This course uses a diagnostic
prescriptive approach to strengthen individual skills in vocabulary and comprehension. Laboratory work provides individualized, self-paced practice in specific skills. This course does not apply toward the associate degree and is part of College Preparatory Studies. Four credit hours, five contact hours; two laboratory hours.

**REA 2205 Reading for Speed and Comprehension (T) 3 cr.**
Prerequisite: REA 0210 or satisfactory score on placement test.
This course is for college students, business and professional people, and other adults who wish to increase their reading rate, gain a higher level of comprehension, improve their vocabulary, and improve their test-taking skills. Three contact hours.

**REE — Real Estate**

**REA 1000 Real Estate Principles and Practices 3 cr.**
The basic purpose of this course is to provide the student with a broad background of the real estate field and to expose the student to the wide ranging nature of the field. Successful completion of this course and REE 1400 with grades of C (or better) fulfills the educational prerequisites requirements established by the Florida Real Estate Commission for the state examination for a licensed real estate salesperson. Three contact hours.

**REE 1100 Real Estate Appraiser (T) 5 cr.**
This is an intensive course that has been developed to impart a broad understanding of real property appraisal concepts, the technical skills employed in their applications to residential appraisals, and to give the experienced real estate appraiser a basic knowledge of appraisal fundamentals. Three contact hours.

**REE 1400 Real Estate License Law 3 cr.**
This course covers a detailed explanation of Florida Real Estate Law as contained in the Florida Real Estate Handbook. This course discusses the operation, requirements, and procedures of the real estate office. Successful completion of this course and REE 1000 with grades of C (or better) fulfills the educational prerequisites requirements established by the Florida Real Estate Commission for the state examination for a licensed real estate salesperson. Three contact hours.

**REE 1500 Real Estate Sales 3 cr.**
This course consists of modern techniques of successful real estate selling, including how to obtain prospects from advertising, showing properties to buyers, convincing the seller, closing the sale, building a personal referral business, financing, and real estate sales, and educating real estate opportunities. Three contact hours.

**REE 2200 Real Estate Finance (T) 3 cr.**
Prerequisite: REE 1000 or Real Estate Salesperson Registration Certificate. This course consists of concepts, principles, and practices pertaining to real property finance, including detailed information on the legal aspects of mortgages, mortgage regulations, and ethics, all major sources of funds for real estate financing, relevant government agencies, and ownership forms. Three contact hours.

**REE 2250 Home Mortgage Lending 3 cr.**
This course is designed to cover the subject from the viewpoint of the mortgage loan officer who seeks to develop a sound mortgage portfolio. This course presents a picture of the mortgage market focus, then the acquisition of a mortgage portfolio, mortgage plans and procedures, mortgage loan processing and servicing, and finally the obligations of the mortgage loan officer in overall portfolio management. Three contact hours.

**REE 2270 Mortgage Broker in Mortgage Lending 3 cr.**
This course offers an exposure to the techniques and principles of mortgage financing and brokerage operations and a background study of the Florida Mortgage Brokerage Act. This course prepares the student for the Florida State examination and is a licensed Mortgage Broker. The course incorporates an overview of mortgage lending practices into the course. Three contact hours.

**REE 2300 Real Estate Investment (T) 3 cr.**
The student will benefit by taking REE 1000 prior to enrollment in REE 2300. This course familiarity with real estate investment fundamentals, depreciation, capital gain and loss, and installment sales, non-taxable exchange, ownership forms, beyond-leasing financing, creative financing, financing analysis and projection, land investments, industrial properties, shopping centers, office buildings, residential property, mobile homes, parks, Economic Recovery Act of 1981, apartment complexes, and warehouse properties. Three contact hours.

**REE 2420 Real Estate Law (T) 3 cr.**
This course offers suggestions as to types of real estate documents, their form and contents, and the mechanics of law, and contains a full legal, detailed exposition at every aspect of modern real estate transactions. Three contact hours.

**REE 2500 Real Estate Management 3 cr.**
Prerequisite: REE 1000 or Real Estate Salesperson’s or Broker’s Registration Certificate. This course presents comprehensive coverage of property management, with emphasis placed on basic management concepts which can be applied to apartments, commercial buildings, shopping centers, and urban renewal programs, and also on creative management techniques for solving problems. Successful completion of this course is equivalent to the Institute of Real Estate Management’s course REE 20, as one of the requirements toward Certified Property Manager. Three contact hours.

**REL — Religion**

**REL 2110 Religion and Contemporary Culture (T) 3 cr.**
This course analyzes the religious environment in the United States since the Second World War with special emphasis on the period since the 1960’s. Its purpose is twofold: To acquaint the student with modern American religious trends and the influence of religion on American life; and to acquaint the student with the uniqueness and the variability of the American religious situation. Three contact hours.

**REL 2115 Religious Thought in the Old Testament (T) 3 cr.**
This course is a study of religious thought and tradition in the Old Testament with attention given to the problems of authorship, date, historical setting, and critical criticism. Three contact hours.

**REL 2116 Religious Thought in the New Testament (T) 3 cr.**
This course studies the life, teachings of Jesus, and the beginning of church life and thought as reflected in the New Testament. Three contact hours.

**REL 2300 World Religions (T) 3 cr.**
Prerequisite: KNC 113; or satisfactory score on placement test.
This course consists of a survey of world religions with emphasis upon Hinduism, Buddhism, Judaism, Christianity, and Islam. This course includes reading and writing assignments. Three contact hours.
RET — Respiratory Therapy

RET 1024 Fundamentals of Respiratory Therapy 4 cr.
This introductory course covers basic respiratory therapy equipment, medical gases, gas therapy, and the respiratory therapy department. Four contact hours.

RET 1276 Clinical Skills For the Respiratory Therapist 4 cr.
Corequisite: RET 1024. This course introduces the student to and trains the student in the nursing and rehabilitative skills necessary to provide quality respiratory care. Four contact hours.

RET 1824 Orientation to the Hospital Environment 4 cr.
Prerequisite: Permission of the professor. This course provides the student with an introduction to the hospital environment, the function of the Respiratory Therapy Department, and the role and responsibilities of the respiratory therapist. Eight contact hours (clinical).

RET 2264 Ventilatory Management 4 cr.
Prerequisite: ABP 1260 or permission of professor. This course introduces the student to artificial mechanics, ventilation, classification of ventilatory abnormalities, and the effects of mechanical ventilation on ventilation. Four contact hours.

RET 2272 Respiratory Therapy Clinical Applications 6 cr.
Prerequisite: ABP 1260 or permission of professor. This course introduces the respiratory therapy student into the hospital departments and situations in which the student will be expected to perform the procedures applicable to the specific role in the student's education. The course includes clinical supervision of the performance of these procedures. Twelve contact hours (clinical).

RET 2273 Clinical Seminar in Intensive Respiratory Care 1 1 cr.
Prerequisite: ABP 1260; Corequisite: RET 2272. This course is a weekly clinical seminar dealing with the current practices in intensive respiratory care. Relevant medical literature, and patient care studies. Two contact hours (clinical).

RET 2280 Clinical Seminar in Intensive Respiratory Care II (CT) 1 cr.
Prerequisites: RET 2273, 2264; Corequisite: RET 2280. This course is a continuation of the evaluation and correction of respiratory care practices in intensive respiratory care. Relevant medical literature, and patient care studies. Two contact hours (clinical).

RET 2284 Pulmonary Function Studies (T) 2 cr.
Prerequisite: ABP 1260. This course is designed to introduce the student to pulmonary function techniques and the clinical significance of the diagnostic data gained from this form of testing. Two contact hours.

RET 2285 Arterial Blood Gases and Critical Care Monitoring 2 cr.
Prerequisite: ABP 1260. This course is designed to introduce the student to arterial blood gas analysis and various techniques of monitoring the critically ill patient. The course also includes the interpretation and clinical significance of the data gained from these monitoring techniques. Two contact hours.

RET 2743 Neonatal and Pediatric Respiratory Care 3 cr.
Prerequisite: ABP 1260 or permission of the professor. This course investigates normal, abnormal, and pediatric differences in cardiopulmonary anatomy and physiology, respiratory care equipment, neonatal and pediatric cardiopulmonary pathologies, and adaptations of respiratory care techniques to pediatric patients. Three contact hours.

RET 2832 Respiratory Intensive Care Practicum I 12 cr.
Prerequisite: RET 2264. This course provides the student with the essential clinical skills necessary to function as a competent respiratory therapist in the critical care area. Twenty-four contact hours (clinical).

RET 2833 Respiratory Intensive Care Practicum II 12 cr.
Prerequisite: RET 2832. In continuation, this course provides the student with the essential clinical skills necessary to function as a competent respiratory therapist in the critical care area. Twenty-four contact hours (clinical).

RMI — Risk Management and Insurance

RMI 1500 Principles of Life Insurance 3 cr.
This course is an introduction to the principles of life insurance, the basic life insurance plans, and the more common types of individual life insurance contracts. It also includes a survey of industrial life insurance, health insurance, and group life insurance, and it considers a general survey of the major kinds of personal insurance coverage available. Three contact hours.

RMI 1521 Principles of Insurance 3 cr.
This course will seek to develop principles that can be used in understanding insurance companies, contracts, and practices. The approach will be essentially functional. The course emphasizes the general principles and explanations of practices and practices of the life insurance industry. The course covers the major kinds of life insurance contracts available for the general public. Three contact hours.

RMI 1541 Life Company Operations 3 cr.
This course is an introduction to the life insurance company as a business entity. Its operation, organization, regulation, taxation, and accounting principles, as well as the marketing and investment functions. Three contact hours.

RMI 1542 Legal Aspects of Life Insurance 2 cr.
This course is an introduction to the life insurance company as a business entity. Its operation, organization, regulation, taxation, and accounting principles, as well as the marketing and investment functions. Three contact hours.

RMI 1612 Principles of Casualty Insurance and Surety Bonding 3 cr.
Prerequisite: RMI 1521. This course is an introduction to the various areas of automobile liability and property insurance, workers' compensation and employers' liability insurance, business and personal liability insurance, fidelity and surety bonds, and marine and aircraft insurance. Three contact hours.

RMI 1615 Principles of Fire and Allied Lines 3 cr.
Prerequisite: RMI 1521. This course is an introduction to the various areas of fire insurance, marine insurance, and allied lines of insurance. Three contact hours.

RMI 1615 Principles of Property Insurance Adjusting 3 cr.
This course, an introduction to the general principles of insurance
and property loss of adjusting, covers the following areas: risk and insurance, loss prevention, risk management, principles of law and the insurance transaction, the insurance contract, limitations on coverage and limitations on amount of loss, the procedure, negotiation, and reports of adjustment of property losses, and estimation of business losses. Three contact hours.

RMI 1651 Principles of Insurance and Liability Claim Adjusting
3 cr.
This course, which corresponds to Part II of the Insurance Institute of America’s “Principles of Insurance and Liability Claim Adjusting,” covers the procedures and practices of liability claim adjusting. Three contact hours.

RMI 1666 Marketing Principles of Life and Health Insurance
3 cr.
This course presents a new approach toward the life and health insurance industry, its products, the market potential, and the industry as a selling career. Three contact hours.

RMI 2652 Liability Insurance Adjusting
3 cr.
This course covers the concepts of legal duty, breach of legal duty, and concepts of damages. The course also introduces medical knowledge needed by adjusters, as well as the adjuster-lawyer and adjuster-physician relationships, and the settlement of workmen’s compensation claims. Three contact hours.

RMI 2676 Property Insurance Adjusting
3 cr.
This course covers in more depth the previous course on the liability claims adjusting side of the business. Emphasis is placed on the determination of the amount of loss, the evaluation of legal duty, the determination of the amount of loss, and the determination of the amount of loss. The course includes the study of the subject matter of RMI 2652 and RMI 2654, and the determination of the amount of loss. The course includes the study of the subject matter of RMI 2652 and RMI 2654, and the determination of the amount of loss. The student should complete the course work in the subject matter of RMI 2652 and RMI 2654 before taking this course. Three contact hours.

RMI 2759 Life Insurance Accounting
3 cr.
This course corresponds to Part IV of the RMI Life Office Management Association (LOMA) Insurance Accounting Program. This course covers the topics of bookkeeping and accounting as an aid in understanding the life insurance accounting practices. Three contact hours.

RTV — Radio — Television

RTV 2000C Introduction to Broadcasting (T)
3 cr.
This course covers the basic principles of radio, television, and the business and career aspects of radio and television broadcasting. Five contact hours; two lecture hours; two laboratory hours.

RTV 2100C An Introduction to Television Production (T)
3 cr.
The course provides an opportunity for students to work in a television studio. The course will help students become familiar with the basic operation of the television studio. The course will help students understand the production process of a television program, and will provide them with the skills necessary to work in television production. Four contact hours: two lecture hours; two laboratory hours.

RTV 2200C Broadcast Direction (T)
3 cr.
Prerequisite: RTV 2200C. This course, a continuation of RTV 2300C, is intended for broadcast majors. Major topics include the direction of TV programs. Four contact hours: two lecture hours; two laboratory hours.

RUS — Russian Language

RUS 1100 Beginning Russian I (T)
3 cr.
This course consists of pronunciation, elements of grammar, simple conversation, exercises, reading, and composition. The course employs visual and auditory aids. Four contact hours; three lecture hours; one unsupervised laboratory hour.

RUS 1101 Beginning Russian II (T)
3 cr.
Prerequisite: RUS 1100 or equivalent. This course continues the study begun in RUS 1100. Four contact hours: three lecture hours; one unsupervised laboratory hour.

RUS 1000 Conversation Russian (T)
3 cr.
This course concentrates on the development of oral and conversational skills in the language. Communicative habits and cultural patterns that influence everyday conversation will be included. Visual and auditory aids will be used; the student is expected to work independently in the Language Lab and with audio tapes. This course is designed for everyday use of the language; it will not fulfill the General Education foreign language requirements of the State University System. Three contact hours; two supervised lab hours.

SLS — Student Life Skills

SLS 1203 Stress in Today’s Society (T)
3 cr.
This course, designed to acquaint the student with the nature and scope of stress in today’s society, examines the causes and methods of prevention from a lay perspective. The course also discusses general environmental and social stressors which affect all people. A laboratory experience will utilize various relaxation techniques which may aid the student in coping with everyday stress. Four contact hours: two lecture hours; two laboratory hours.

SLS 1301 Career Planning (T)
1 cr.
This course assumes that career choice is a continuous process involving the understanding of self and one’s environment. Using self-assessment instruments as well as group discussions, the student will utilize decision-making techniques to select a tentative career path which is compatible with the student’s individual aptitudes, abilities, values, and interests. One contact hour.

SOP — Social Psychology

SOP 1002 Human Relations (T)
3 cr.
Drawing from several areas of behavioral science, this course, designed for students in business and technical fields, is also suitable for general education and personal enrichment, but not recommended for the student who plans to major in psychology. The course includes group dynamics, leadership, ethics, motivation, and morale, social systems, family and social organizations, and other selected topics. Three contact hours.

SOP 1302 Dynamics of Behavior (T)
3 cr.
This course consists of a study of individual behavior and how it is influenced by culture. This course emphasizes personal adjustment and individual development as they relate to interaction with other people. Three contact hours.

SPA — Speech Pathology and Audiology

SPA 1306 Manual Communications 1 (T)
3 cr.
This course will provide the student with the speaking ability to communicate with hearing-impaired individuals. Upon completion of this course, the student will have acquired the ability to use the
Manual Alphabet and approximately 1,200 signs. With emphasis on expressive skills, methodology will be basically laboratory in nature; students will devote most classroom work to practice in and reinforcement of the many hand configurations and positions. Three contact hours.

SPA 1337 Manual Communications II (T) 3 cr.
This course, a continuation of SPA 1336, will present American Sign Language (ASL), which is the idiomatic and "dialectic" language used by the hearing impaired. The student will learn specialized sentence structure, grammar, and usage of this language. The course will include dialogues with hearing-impaired students and will emphasize receptive skills. Three contact hours.

SPE — Speech Communication

SPE 2140 Small Group Communication (T) 3 cr.
This course emphasizes the development of discussion skills in four areas: (1) the form of discussion: (2) the means of discussion: reasoning, evidence, and supportive ideas development; (3) both leadership, and participation; (4) audience analysis and listening techniques. Three contact hours.

SPE 2594 Intercollegiate Debate (T) 1 cr.
Prerequisite: consent of professor. This course consists of the analysis of proposition of fact, policy, and definition, library research methods, formal debate structure and participation in intercollegiate debate. Three contact hours (studio/individual).

SPE 2800 Fundamentals of Speech Communication (T) 3 cr.
Prerequisite: satisfactory score on placement test. This course is designed for the development of speaking and listening skills for terminology and the study of language. The student will learn the process of speech communication and the relationship of language and culture. This course includes discussion, analysis, and discussion of language and culture. The course does not include the analysis of language and culture. Three contact hours.

SPN — Spanish Language

SPN 1000 Conversational Spanish (T) 3 cr.
This course concentrates on the development of oral and conversational skills in the language. Cultural habits and cultural awareness that influence everyday conversation will be included. The student is expected to work independently in the Language Lab and with media tapes. This course is designed for everyday use of the language; it will fulfill the General Education foreign language requirement of the College of Arts and Sciences. Three contact hours (unsupervised lab work).

SPN 1100 Beginning Spanish I (T) 3 cr.
This beginning course consists of the fundamentals of Spanish speech and grammar taught by integrating the basic communication skills of hearing and understanding, speaking, reading, and writing. Four contact hours: three class hours; one unsupervised lab hour.

SPN 1101 Beginning Spanish II (T) 3 cr.
Prerequisite: SPN 1100 or equivalent. This course is a continuation of SPN 1100. Four contact hours. Three class hours; one unsupervised laboratory hour.

SPN 2200 Intermediate Spanish I (T) 3 cr.
Prerequisite: SPN 1101. This course integrates a thorough review of the principles of grammar with compositions and conversations planned to develop a basic active vocabulary and facility in communicating in written and spoken Spanish. The student will study readings in the history and culture of Spain and Hispanic America. Four contact hours: three lecture hours; one unsupervised laboratory hour.

SPN 2301 Intermediate Spanish II (T) 3 cr.
Prerequisite: SPN 2200. This course is a continuation of SPN 2300. Four contact hours: three lecture hours; one unsupervised laboratory hour.

SSI — Social Sciences, Interdisciplinary

SSI 1110 Origins of American Society (Culture, Primary Institutions and Personal Adjustments) 3 cr.
This course examines the development of the United States and the American way of life. This course includes the American values, institutions, and ideals on both the social and political level. Three contact hours.

SSI 1120 Origins of American Society (Economic, Political and International Institutions) 3 cr.
This course is an examination of American economic institutions, American economic institutions, and the growth of political institutions. Three contact hours.

STA — Statistics

STA 1015 Elementary Statistics (T) 3 cr.
Prerequisite: MAC 1114 with a grade of C or better. This course is an introductory course in statistics. The course includes descriptive statistics, random variables and the normal distribution, binomial and t distribution, estimation theory, linear regression and correlation, and inference from small samples. This course includes a module on logic and computer literacy that must be completed by the student independently of class time. Three contact hours.

SUR — Surveying: Related Areas

SUR 1090C Surveying I (T) 3 cr.
Prerequisites: MAC 1114, ETID 1000C. This course is a study of the fundamentals of surveying with an emphasis on the surveying measurement, leveling, angles, layout, traverse, topographic data collection, and construction map. The course includes related field work, computations, and drawings. Four contact hours: two lecture hours; two laboratory hours.

SUR 2146C Surveying II (T) 3 cr.
Prerequisite: SUR 1090C. The course is a continuation of Surveying I and includes a study of the theory and practice of surveying with an emphasis on computer distance measurement, topographic surveying, land surveying, surveying, and engineering. The program of study includes lectures, computer, and field practice. Four contact hours: two lecture hours; two laboratory hours.

SYG — Sociology, General

SYG 2006 Introductory Sociology (T) 3 cr.
This course is an introduction to sociology, emphasizing the student's awareness of social values, norms, groups, and other aspects of the social world. Three contact hours.
TAX 2010 Individual Taxes (T) 3 cr.
Pre-requisite: ACG 2001 is recommended. This course is recommended for Accounting, Associate in Science degree students, as it provides a study of the federal Internal Revenue Code regulations and cases which apply to the determination of income taxes for individuals. Topics to be considered will include the preparation of the U.S. individual income tax return Form 1040 and its supplemental forms. Three contact hours.

TAX 2010 Corporate, Estate and Trust Taxes (T) 3 cr.
Pre-requisite: ACG 2011. This course is recommended for Accounting, Associate in Science students, as it provides a study of the Federal Internal Revenue Code regulations and cases which apply to the determination of income taxes for corporations, estates and trusts. Topics covered will be the preparation of the returns and supplemental forms for corporations, estates, and trusts. Three contact hours.

TRA — Transportation

TRA 1010 Principles of Transportation 3 cr.
This course is an introduction to transportation. Material includes studies of the characteristics, development, economic aspects, regulation, services, and problems relating to rail, motor, air, pipeline, and water transportation. Three contact hours.

TRA 1032 Transportation and Traffic Management I 3 cr.
This course covers developments leading to national legislation and federal regulations, division of territories, official descriptions, etc.; scope and authority of territorial applications; factors controlling traffic flows, basis governing classification rules, principles of freight rates and tariffs and elements of rate making, shipping documents and their application, outline of special freight services, and freight claims. Completion of this course partially satisfies requirements for certification by the College of Advanced Traffic. Three contact hours.

TRA 1033 Carrier Liability and Claims 3 cr.
This course covers liability for goods, rights, and liabilities of carriers, consignees, and consignors, claim procedures, claim and government regulation. Three contact hours.

TRA 1052 Transportation and Traffic Management II 3 cr.
This continuing course in transportation and traffic management includes the study of tariffs; classification and filing of tariffs; freight rates and services, special freight services, i.e., switching, terminal facilities, disbursement and storage, average agreement, reconditioning and diversion, various transit privileges; embargoes, warehousing and distribution, and rate matters. Completion of this course partially satisfies requirements for certification by the College of Advanced Traffic. Three contact hours.

TRA 1121 Rate Clerk 3 cr.
This basic course in rates and rate structures includes descriptions of rate territories, how various freight is classified by each mode of transportation, and how to apply applicable rates. This course instructs new rate clerks in selection of lowest rates that will provide required shipping service. Also included are rules of rates, rate making procedures, and use of shipping documents. Three contact hours.

TRA 1230 Material Handling 3 cr.
This introductory course in the field of material handling includes an analysis of jobs and careers opportunities, general description of qualifications for entry level positions, shipping and receiving procedures, warehouse problems and inventory control. This course presents the entire field of material handling from the producer-manufacturer to the ultimate user-consumer. Three contact hours.

TRA 1420 Commercial Motor Transportation 3 cr.
This course is an introduction to commercial motor operations, highway and highway financing, equipment, types of operations, financing motor carriers, labor relations, terminal operation, claims, insurance, classification, rates, regulations of motor carriers, commission policy, intercity passenger operations, urban mass transit, and economics of commercial motor transportation. Three contact hours.

TRA 1901 Independent Study of Transportation (T) 3 cr.
This course introduces the student to the ever-broadening area of transportation literature and causes the student to report the student's findings after a careful study and research into an area of personal interest. The student must select a thesis research procedure. Three contact hours.

TRA 2020 Economics of Transportation 3 cr.
This course covers developments in the transportation industry, including the new technological developments, railroads, management policies, regulations, the public policy questions, and major problems regulation. Completion of this course partially satisfies requirements for certification by the American Society of Transportation & Traffic Managers. Three contact hours.

TRA 2035 Transportation and Traffic Management III 3 cr.
This course is a continuation of Transportation & Traffic Management I and II and covers routes and through routes, application of arbitrages and differerations, advanced rating in traffic, import and export traffic, technical aids, and rate interpretation, advanced claim adjustments, and rate and classification committee procedures. Completion of this course partially satisfies requirements for certification by the College of Advanced Traffic. Three contact hours.

TRA 2045 Transportation and Traffic Management IV 3 cr.
This course is a continuation of Transportation & Traffic Management I, II and III and covers a general discussion of the construction and application of the Interstate Commerce Act, and practice before the Interstate Commerce Commission. Completion of this course...
partially covers requirements for certification by the College of Advanced Traffic. Three contact hours.

ZOO — Zoology

ZOO 1010C General Zoology (T) 4 cr.
The student will benefit by taking APB 1150 or BSC 1011C or High School Biology prior to enrolling in ZOO 1010C. This is a survey of the animal kingdom with emphasis on taxonomy, life cycles, evolution, organ systems, and phylogenetic relationships. A representative of each of the major groups will be discussed and investigated. Six contact hours: three lecture hours, three laboratory hours.

ZOO 2713C Comparative Anatomy (T) 4 cr.
Prerequisite: ZOO 1010C. This course consists of a comprehensive survey of the anatomy of chordates with emphasis on the functional morphology of vertebrates, including the dissection and study of preserved specimens of human, dogfish, yellow perch, mud puppy, pigeon and cat. Six contact hours: three lecture hours, three laboratory hours.

SPECIAL SERIES COURSES
Cooperative Education

COE 1000 Cooperative Education Seminar 1 cr.
The seminar prepares the student for entry into the Cooperative Education Program. During the seminar, the student will receive career counseling, job orientation and placement. One contact hour.

Prefix will be assigned according to student work experience.
— 1945 Cooperative Education Work Experience I 3 cr.
The first work experience in Cooperative Education provides the student with meaningful experiences that will enhance the student's college education through career exploration and job training. Forty contact hours.

Prefix will be assigned according to student work experience.
— 2919 Cooperative Education Work Experience II 3 cr.
The second work experience in Cooperative Education provides the student with further meaningful experiences that will enhance the student's college education through career exploration and job training. Forty contact hours.

COMPENSATORY COURSES
CLAST Review

ENC 0007 Writing Review and Remediation for CLAST
This course is designed to meet the needs of Associate in Arts and Associate in Science degree students to further their mastery of the writing skills as related to the College Level Academic Skills Test (CLAST).

IDS 0006 Academic Skills Review
Intensive review is given in mathematics, reading, and writing for students who require assistance in meeting the entry level competencies for the Developmental Education Link Through Achievement (DELTA) Program college credit track. An individual educational plan is developed for each student as the subject(s) identified in order to allow each student to move ahead as rapidly as possible.

MAT 0012 Mathematics Review and Remediation for (CLAST)
This course is designed to meet the needs of Associate in Arts and Associate in Science degree students to further their mastery of the computational skills as related to the College Level Academic Skills Test (CLAST).

REA 0001 Reading Review and Remediation for CLAST
This course is designed to meet the needs of Associate in Arts and Associate in Science degree students to further their mastery of the reading skills as related to the College Level Academic Skills Test (CLAST).

Continuing Education

Cross Reference of New Numbers

The Continuing Education courses are in the process of conversion to the Statewide Course Numbering System (SCNS), consistent with the college credit course assignments within SCNS.

In date, the following courses have been converted to the SCNS. The old course number is cross-referenced to the new SCNS number to help in locating the description of the course.

Old Prefix and Number Title New Prefix and Number
CGC 0035 State Child Care Worker Training Course C111 0103
ECO 0006 Career Planning SLS 0006
EME 0014 Emergency Medical Technology Seminar EMS 0375
EME 0011 Basic Review Emergency Care EMS 0381
EME 0012 Advanced (Rescue) Emergency Care EMS 0391
EME 0018 Basic Life Support EMS 0065
EME 0020 Basic Life Support Instructors EMS 0731
FPF 0422 Fire Fighter Minimum Standards Course PFP 0005
MIS 0500 Panorama of Advances in Medical Technology MLS 0930
INS 0270 Life Agent Qualification Course RMI 0110
OST 0011 Word Processing Applications OTT 0501
SLS 0005 Job Seeking and Keeping Skills SLS 0336
SLS 0010 Computer-Assisted Career and Job Search Guidance SLS 0335
WEL 0400 Oxygen-Acetylene Brazing and Braze Welding MTR 0105
WEL 0405 Gas Metal Arc Welding Pipe MTR 0146
WEL 0410 Basic Gas Metal Arc Welding MTR 0122
WEL 0415 Flux Cored Arc Welding MTR 0124
WEL 0420 Preparation for Plate Certification MTR 0082
WEL 0425 Oxygen-Acetylene Welding MTR 0101
WEL 0430 Gas Tungsten Arc Welding (TIG) Pipe and Tubing MTR 0147
WEL 0435 Gas Tungsten Arc Welding Basic MTR 0126
WEL 0440 Gas Metal Arc Welding Advanced MTR 0123
WEL 0445 Shielded Metal Arc Welding Downhill MTR 0144
WEL 0450 Preparation for Pipe Certification MTR 0083

Continuing Education Course Descriptions

All courses in the following list are not taught each term. Class schedules are published prior to each term which show the courses that will be offered.
Career Advancement Courses

AAC 0850 Income Tax Accounting for Business
The material taught in this course is based on the Internal Revenue Code. Persons in the tax accounting field who prepare returns for private individuals, partnerships, and other businesses are taught to prepare and keep suitable records for income tax purposes. They are taught to prepare their income tax returns according to legal interpretation.

AAC 0120 Basic Accounting
A course designed as supplementary training to prepare unemployed in a related field to enter the student with the complete bookkeeping cycle. Includes journalizing, posting financial statements, adjusting and closing books. Emphasis is given to inventory methods, special journals, control accounts, depreciation, and payroll methods.

ACT 0309 Air Conditioning, Refrigeration, and Heating I
Corequisites: IDS 0010. This course is the first of three sequential courses designed for job entry training in the air conditioning, refrigeration, and heating fields. Instruction includes the scientific operation and principles of the most common types of equipment and the technical skills that are needed to maintain and repair the electrical systems. The proper use of shop manuals, manufacturer's manuals, and related trade literature is stressed.

ACT 0310 Air Conditioning, Refrigeration, and Heating II
Prerequisites: ACT 0309. Corequisites: IDS 0011. This course is a continuation of ACT 0309. Air Conditioning, Refrigeration, and Heating I. Course content will emphasize piping, brazing, soldering, oil, and gas heating and heat pumps.

ACT 0881 Air Conditioning and Refrigeration Piping I
This course is designed to teach job entry level skills. Topics covered include piping techniques such as flaring and sweating, brazing, piping commercial and residential systems.

ACT 0882 Air Conditioning and Refrigeration Piping II
Prerequisites: ACT 0881. Corequisites: IDS 0012. This course is designed to teach job entry level skills. Topics covered include down ducts, hot gas lines, pressure drop, flash gas control, multihole, and piping multiple systems.

ACT 0883 Air Conditioning and Refrigeration Piping III
Prerequisites: ACT 0882. Corequisites: IDS 0013. This course is designed to teach job entry level skills. Topics covered include multiple evaporators, multiple condensers, multiple freezing equipment, piping central units.

ACT 0884 Air Conditioning and Refrigeration/Wiring Diagrams and Schematics I
This course is designed to teach job entry level skills. Topics covered include air conditioning wiring diagrams and schematics on A/C control systems, A/C window units, oil furnaces, A/C heat pumps. The course includes technique for trouble-shooting the electrical system in all air conditioning and refrigeration equipment.

ACT 0885 Air Conditioning and Refrigeration/Wiring Diagrams and Schematics II
Prerequisites: ACT 0884 or consent of instructor. This course is designed to teach job entry level skills and is a continuation of Air Conditioning and Refrigeration Wiring Diagrams and Schematics I. Topics covered include air conditioning wiring diagrams and schematics on A/C control systems, A/C window units, oil furnaces, electronic furnaces, heat pumps, and troubleshooting.

ACT 0886 Air Conditioning: Commercial and Residential I
This course is designed to teach job entry level skills. Topics covered include the mechanical cycle, compressor, condenser, evaporator and metering devices.

ACT 0887 Air Conditioning: Commercial and Residential II
Prerequisites: ACT 0886 or consent of instructor. This course is designed to teach job entry level skills. Topics covered include the refrigeration cycle, heat, its measurement and types, application of latent, heat temperature and its measurement, heat transfer and control, temperature conversion formulas, and temperature BTU chart.

ACT 0889 Air Conditioning and Refrigeration Theory I
This course is designed to teach job entry level skills. Topics covered include the refrigeration cycle, heat, its measurement, and types, application of latent, heat temperature and its measurement, heat transfer and control, temperature conversion formulas, and temperature BTU chart.

ACT 0892 Air Conditioning and Refrigeration Theory II
Prerequisites: ACT 0887 or consent of instructor. This course is designed to teach job entry level skills. Topics covered include condensers, metering devices, compressors, evaporators, basic cycle controls and refrigerant characteristics.

ACT 0893 Basic Air Conditioning Troubleshooting
This course is designed to teach job entry level skills. Topics covered include basic air conditioning troubles, problems on the electrical circuit, heating or cooling complaints, troubleshooting equipment.

ACT 0894 Psychrometrics and Heat Load Calculations
This course is designed to teach job entry level skills. Topics covered include psychrometric charts, measurement and properties of air and heat load calculations on residential and commercial buildings.

ACT 0895 Major Components Air Conditioning and Refrigeration
This course is designed to teach job entry level skills. Topics covered include compressors, condensers, evaporators, and metering devices.

AIR 0044 Engines
This course is designed to teach job entry level skills for mechanics and includes instruction in engine tune, engine repair and diagnosis. Instruction includes a combination of lecture and shop experience.

AIR 0102 Electrical Systems and Fuel Systems
This course is designed to teach job entry level skills for mechanics and includes instruction in engine electrical systems, starting systems, basic fuel systems, and basic emission controls. Instruction includes a combination of classroom lecture and shop experience.

AIR 0109 Computer Controls and Fuel Injection
Prerequisites: AIR 0044, AIR 0102, or permission of instructor. This course is designed to teach job entry level skills in fuel injection, computer control systems, and related emission control systems. Includes both classroom lecture and shop experience.

AIR 0121 Steering and Suspension
This course is designed to teach job entry level skills in the repair and care of steering and suspension systems. Instruction includes power steering, wheels and tires, suspension systems, and shop experience.

AIR 0121 Brake Systems
This course is designed to teach job entry level skills in the theory, component, and the repair of brake systems. Instruction includes brake drum and disc brakes and a combination of lecture and shop experience.
AER 0130 Automotive Specialist
This course is designed to teach job entry skills in the alignment, suspension, and brake systems of cars and light trucks, including front wheel drive vehicles. Key elements of the course include: front end alignment, disc and drum brakes, tires and computerized balancing, shock absorbers, McPherson struts, and minor servicing.

AER 0131 Clutch and Transmissions
This course is designed to teach job entry level skills in the theory and repair of clutches, manual transmissions, and differentials. Instruction includes: basic service and repair of automatic transmissions, lecture and shop experience.

AER 0171 Air Conditioning and Heating
This course is designed to teach job entry level skills in the theory, service, and repair of automotive heating and air conditioning systems. Instruction includes both classroom lecture and shop experience.

AER 0201 Automotive Body Welding (Repair)
Prerequisite: AER 0263. This course is designed to teach job entry level skills in automotive body repair and refinishing field. Topics included are: analysis of damaged metal, welding, operating pressure, level, welding and filling and burning and cutting techniques.

AER 0212 Automotive Panel Replacement
This course is designed to teach job entry level skills in automotive body repair and refinishing field. Topics include: basic tools and equipment, panel body repair, power jacking equipment and panel installation.

AER 0214 Automotive Frame Straightening and Gauging
This course is designed to teach job entry level skills in automotive body repair and refinishing field. Topics included are: construction, measure, damage and appraisal and straightening methods of frames.

AER 0220 Automotive Body Repair Basic
This course is designed to teach job entry level skills in automotive body repair and refinishing field. Topics include: metal straightening, refinishing analysis of damaged metal, hand tools and disc sanding.

AER 0221 Automotive Painting Problems and Preparation
This course is designed to teach job entry level skills in automotive body repair and refinishing field. Topics include: paint problems, and corrections and spray patterns.

AER 0222 Automotive Painting Basic
This course is designed to teach job entry level skills in automotive body repair and refinishing field. Topics include: use of air compressors and transformers, painting and sanding equipment, proper use of sand paper, paint identification and spray painting safety.

AER 0223 Automotive Painting Advanced
This course is designed specifically for job entry training in automotive body repair and refinishing field. Topics include: equipment and paint identification, surface preparation, and finish and finish repair.

AER 0240 Automotive Glass and Sheet Metal Basic
This course is designed to teach job entry level skills in automotive body repair and refinishing field. Topics included are: windshields and windows, glass operating mechanisms, tools and latches and basic glass tools.

AER 0241 Automotive Glass Removal and Replacement
Prerequisite: AER 0240. This course is designed to teach job entry level skills in automotive body repair and refinishing field. Topics included are: removing wipers and air bags, windshield removal and replacement, door glass removal and replacement, and tail gate glass removal and replacement.

AER 0245 Automotive Glass and Sheet Metal Advanced
This course is designed to teach job entry level skills in automotive body repair and refinishing field. Topics included are: door operating mechanism, and removal and alignment of headliners and front bumpers, hoods and fenders, trunk lids and tail gates.

AER 0263 Automotive Body Repair Advanced
Prerequisite: AER 0220. This course is designed to teach job entry level skills in automotive body repair and refinishing field. Topics included are: dent repair, disc sanding operations and picking, use of plastic body filler and flat glass bridging and repair.

AER 0272 Automotive Damage Appraising
This course is designed to teach job entry level skills in automotive body repair and refinishing field. Topics included are:talbot and warranty items, estimation of materials and labor and damage appraisal.

AER 0600 Introduction to Motorcycle Mechanics
This course is designed to teach job entry level skills in the repair of motorcycles. Topics include: fuel systems, air exhaust systems, relays, gears, and instrument panels. Special emphasis will be placed on safety.

AER 0611 Motorcycle Engine Systems
This course is designed to teach job entry level skills on the different types of motorcycle engines. Topics discussed include: The two-stroke, four stroke, motorcycle head, removal and installation, repairs, clutches, transmission, and drive assemblies. Special emphasis will be placed on safety.

AER 0652 Motorcycle Chassis
This course is designed to teach job entry level skills on the various parts of the motorcycle chassis. Topics covered include: frames, forks, shocks, wheels, chains and sprockets, and brakes. Special emphasis will be placed on safety.

AER 0613 Electrical Cooling and Lubricating Systems
This course is designed to teach job entry level skills on the electrical, cooling and lubricating systems of a motorcycle. Topics covered include: starters, batteries, regulators, timing, points, oil, air cooling and water pumps. Special emphasis will be placed on safety.

AER 0701 Introduction to Diesel Engines
This course is designed to teach job entry level skills in diesel engines. Topics include: diesel and gasoline engine basic components, engine performance and cycle of operation, and an overview on combustion chambers. Special emphasis will be placed on safety procedures.

AER 0777 Maintenance and Troubleshooting of Diesel Engines I
This course is designed to teach job entry level skills on the performance of proper maintenance, tune-up and troubleshooting procedures on auxiliary marine diesel engines. Emphasis will be placed on fuel injection and lubricating systems, adjusting valves, removing and cleaning fuel injectors, solving engine problems, and testing an engine on both diesel engines, Volvo, Caterpillar, Perkins, John Deere and Mitsubishi engines.

AER 0778 Maintenance and Troubleshooting of Diesel Engines II
Prerequisite: AER 0777 or consent of instructor. This course should be taken along with maintenance and troubleshooting of Diesel engines I. It is designed to provide practical experience and job entry level skills to perform an engine tune-up on a Detroit Diesel.
AER 0780 Caterpillar Diesel Engine Overhaul and Repair 1

This course is designed to teach job entry level skills in the overhaul and repair of Caterpillar Diesel Engines and their components. Topics include: service manual utilization, engine disassembly and precision measuring instruments. Special emphasis will be placed on safety and manufacturer's overhaul procedures.

AER 0781 Caterpillar and Diesel Engine Overhaul and Repair 1

Prerequisite: AER 0780 or consent of instructor. This course should be taken along with Caterpillar and Diesel Engine Overhaul and Repair 1. It is designed to provide practical experience and job entry level skills in the repair and overhaul of Caterpillar diesel engines. Topics include engine systems theory, engine assembly and run-in procedures. Special emphasis will be placed on engine systems theory, engine assembly and run-in procedures.

AER 0783 Cummins Diesel Engine Overhaul and Repair 1

This course is designed to teach job entry level skills in the overhaul and repair of Cummins diesel engines and their components. Topics include: service manual utilization, engine disassembly and use of precision measuring instruments. Special emphasis will be placed on safety and manufacturer's overhaul procedures.

AER 0784 Cummins Diesel Engine Overhaul and Repair 2

Prerequisite: AER 0783 or consent of instructor. This course should be taken along with Cummins Diesel Engine Overhaul and Repair 1. It is designed to provide practical experience and job entry level skills in the overhaul and repair of Cummins diesel engines. Topics include engine systems theory, engine assembly and run-in procedures. Special emphasis will be placed on safety and manufacturer's overhaul procedures.

AER 0785 Detroit Diesel Engine Overhaul and Repair 1

This course is designed to teach job entry level skills in the overhaul and repair of Detroit diesel engines and their components. Topics include: service manual utilization, engine disassembly and use of precision measuring instruments. Special emphasis will be placed on safety and manufacturer's overhaul procedures.

AER 0786 Detroit Diesel Engine Overhaul and Repair 2

Prerequisite: AER 0785 or consent of instructor. This course should be taken along with Detroit Diesel Engine Overhaul and Repair 1. It is designed to provide practical experience and job entry level skills in the overhaul and repair of Detroit diesel engines. Topics include: engine systems theory and engine assembly and run-in procedures. Special emphasis will be placed on safety and manufacturer's overhaul procedures.

AER 0787 John Deere Diesel Engine Overhaul and Repair 1

This course is designed to teach job entry level skills in the overhaul and repair of John Deere diesel engines and their components. Topics include: service manual utilization, engine disassembly and use of precision measuring instruments. Special emphasis will be placed on safety and manufacturer's overhaul procedures.

AER 0788 John Deere Diesel Engine Overhaul and Repair 2

Prerequisite: AER 0787 or consent of instructor. This course should be taken along with John Deere Diesel Engine Overhaul and Repair 1. It is designed to provide practical experience and job entry level skills in the overhaul and repair of John Deere diesel engines. Topics include: engine systems theory and engine assembly and run-in procedures. Special emphasis will be placed on safety and manufacturer's overhaul procedures. Special emphasis will be placed on safety and manufacturer's overhaul procedures.

AEC 0003 Air Conditioning, Refrigeration and Heating

To acquaint the student with the installation and service of air conditioning systems. Computation of heat gain and loss, diagnosis and correction of problems, reading of blueprints, diagrams, and schematics is included. Expansible materials supplied by provider. This course is designed primarily for off-campus supplementary instruction.

AIM 0010 Aircraft Powerplant Mechanics

This course is designed as supplementary instruction for persons already employed in the field or in a related field. Instruction will include theory, maintenance procedures, and safety precautions associated with aircraft power plants.

AIM 0012 Aircraft Mechanics

This course is designed as supplementary instruction for persons already employed in the field or in a related field. Instruction will include theory, maintenance procedures, and safety precautions associated with aircraft mechanics.

AIO 0029 Advanced Instrument Training — Private Pilot

A course designed for professional aviation pilots to gain instrument rating or to maintain instrument flight current under FAA Part 61. Course is limited to licensed private pilots. Training will be a combination of classroom lecture and time on FAA approved ATP 610K flight simulators.

AIO 0034 Advanced Instrument Training — Private Pilot Certificate

A course designed for professional aviation pilots holding private or commercial license with instrument rating to qualify for instrument flight current using FAA approved ATP 610K flight simulators.

APC 0011 Business English

A study of the business letter, discrimination in the use of words, spelling, review of grammar, punctuation, and development of language power. This course is designed for persons already employed in a related field for supplementary instruction.

APC 0221 Water and Sewage Plant — Related Communications

Training in communications in preparation for the Water and Sewage Plant Operator's License Examination.

APS 0225 Water Treatment Plant Operator

This course is designed as supplementary instruction to prepare students to take the Water Treatment Plant Operator's examination. The course is based on 120 hours of instruction to cover waste distribution, chlorination, filtration, softening, disinfection, laboratory procedures, management and communication skills.

APS 0226 Water Treatment Plant Operator

This course is designed as supplementary instruction to prepare students to take the Water Treatment Plant Operator's examination. The course is based on 120 hours of instruction to cover waste distribution, chlorination, filtration, softening, disinfection, laboratory procedures, management and communication skills.
AUM 0403 Automotive Mechanics
The course consists of supplementary instruction in the repair of passenger automobiles and light-duty trucks, and includes engines, transmissions, clutches, exhaustors, ignition systems, chassis, body, and power-operated equipment.

AUM 0490 Automotive Machining in Industry
The course is designed to meet the needs of employers and unemployed employees in the automotive machining field. The course is also designed to emphasize the importance of safety procedures, equipment use, and quality control.

AUM 0595 EMP Automotive Machine Shop
The course is designed to meet the needs of employers and unemployed employees in the automotive machine shop industry.

BCN 0010 Building Maintenance
This course provides training in all phases of repair and maintenance of building fixtures and furnishings, including building interior, fuse, insulation, plastic, concrete, wood floors, roofs, pipes, outer walls, and exterior maintenance. It includes instruction and skill development in the use of hand and power tools for basic maintenance and repair to plumbing, electrical, metal, and machine fixtures and furnishings. This course is designed primarily for off-campus supplementary instruction.

BDP 0870 Fundamental Computer Concepts
The purpose of this course is to provide an overview of computers to today's world. What they are, what they do, how they work, the hardware involved, the necessary components of an information system, the need for accuracy and control, the most common languages, the most common business applications, and the understanding of the basic terminology.

BDP 0871 Introduction to Computers
This course is intended for operation of small business and others with no previous experience in data processing. It introduces the student to the world of data processing and includes a study of the various types of computers and microcomputers, hardware and software and how they relate, elementary problem solving, survey of programming languages, facilities for computers and how to select and use computers in the business and in the small businesses.

BDP 0875 Mini-Micro Computing Systems
This course is designed as supplementary instruction for persons employed in a related area. It is a survey of microcomputer applications, architectures, and availability, including the process of evaluating, ordering, and assembling kits and basic machine language programming. This course is for those interested in building their own computer systems. Desirable background includes strong foundations in high school mathematics, fundamentals of electricity and electronics, and basic computer data processing.

BDP 0885 Basic Language for Microcomputers
This course is designed to provide the student with the knowledge and "hands-on" experience to program microcomputers with the BASIC language. Although the coverage will not allow the student to enter the job market as a programmer, it will provide the student with a basic foundation in the operation of microcomputers and establish the essential fundamentals of programming in the microcomputer language. With this knowledge, the student will be able to program simple applications and be able to continue to expand skills through other programming courses or personal study.

BDP 0901 Intermediate Basic for Microcomputers
Primary: BDP 0885 or equivalent programming experience.

This course is intended for students who have completed the Basic Language for Microcomputers course or its equivalent, and is designed to enhance their understanding of programming skills utilizing the microcomputer. The course covers topics such as Multilevel Tables, String Manipulations, Controlling the Monitor and Disk Input and Output operations. In addition, this course allows the student to gain "hands-on" experience and skill utilizing the computer and microcomputer laboratory to reinforce the concepts presented in the classroom lectures.

BDP 0920 Computer Programming for the Disabled
This course is designed specifically to train disabled persons in the field of computer programming. Students will undergo an intensive nine-month training period plus a two-month internship in area businesses as programmers. During the training the following areas will be covered: Business Correspondence, DB Concept and Terminology, Analysis and Design, Terminal Facility (CMS), Programming Languages, Graphic, JCL, and CICS. Other areas will include Group Project System Utilities and Data Communication Concepts. Enrollment is limited to physically disabled individuals admitted through a selective admission process. All covering students must take the SRA Computer Programmer Assessment Battery.

BDP 0919 Word Processing Software for Microcomputers
Prerequisite: It is suggested that the student possess much-copying skills prior to registering for the course. This first course in a series of five is designed to introduce and supplement the background of the beginning student to word processing software packages (APPLEWRITER II and DISKWRITE III) that have become popular on both the Apple IIe and IBM-PC microcomputers. The course will provide the student with the opportunity to create a letter or document, use appropriate edit and functions commands, insert and delete text, print final copy with headings, listing, page numbers, and more.

BDP 0880 Electronic Spreadsheet Software for Microcomputers
Prerequisite: It is suggested that the student possess much-copying skills prior to registering for the course. This second course in a series of five is designed to introduce and supplement the background of the beginning student to a number of electronic spreadsheet software packages (SYSTECALC-ADVANCED, SUPERCALC III) that have become popular on both the Apple IIe and IBM-PC microcomputers. The course will provide the student with the opportunity to create and manipulate a spreadsheet for financial analysis, project planning, budget projections, and "what-if" analysis.

BDP 0880 Data Base Software for Microcomputers
Prerequisite: It is suggested that the student possess much-copying skills prior to registering for the course. This third course in a series of five is designed to introduce and supplement the background of a number of data base software packages (PFS-File/Ren, Lotus 1, 2, 3) that have become popular on both the Apple IIe and IBM-PC microcomputers. The course will provide the student with the opportunity to create and use a data base file for entering information, retrieving information, modifying the file, producing reports, and information selection and evaluation.

BDP 0880 Business Graphics Software for Microcomputers
Prerequisite: It is suggested that the student possess much-copying skills prior to registering for the course. This fourth course in a series of five is designed to introduce and supplement the background of the beginning student to a number of business graphics software packages (PFS-GRAPH II, LOTUS 1, 2, and 3) that have become popular on both the Apple IIe and IBM-PC microcomputers. The course will provide the student with the opportunity to use business data to create business graphics for scatter plots, pie charts, bar graphs, and line graphs.
BGP 0850 Integrated Business Software for Microcomputers
Prerequisite: It is suggested that the student possess touch-typing skills prior to registering for the course. This fifth course in a series of five is designed to introduce and supplement the background of the beginning student with a number of integrated business software packages (CLOTS 1, 2 and 3; FRAMEWORKS) that have become popular on the IBM-PC microcomputer. The course will provide the student with the opportunity to simulate office problems in the business environment by creating data base files, graphs, spreadsheets, and documents, in addition to exchanging information among these functions without having to reenter the data or change magnetic media.

BIR 0192 EMP Blueprint Reading
The course is designed to meet the needs of the employees and under-employed employees in the blueprint reading field.

CAP 0815 Carpentry
This course is designed primarily for apprenticeship instruction and its contents will include training in general carpentry work involved in erection of wooden buildings, installation of exterior and interior trim, floor- and wall- construction, and other similar types of work.

CAP 0190 EMP Carpentry
The course is designed to meet the needs of employees and under-employed employees in the carpentry industry.

CDA 0010 Computer Aided Drafting and Design
This course provides supplementary training to persons employed in the field of drafting. The student will acquire a knowledge of the equipment required for drafting and training in the CAD system using AutoCAD software. The student will complete drawings using various menus and will be trained in the use of AutoCAD software for performing drafting tasks.

GIS 0020 Auto CAD Seminar
A series of seminars are offered for individuals employed in industry and the design professions dealing with AutoCAD operating systems and applications. Seminars will vary between seven contact hours and thirty-two contact hours and will provide intensive, hands-on training in computer aided drafting and design utilizing AutoCAD and AutoCAD compatible software.

GCG 0015 Day Care Administration and Supervision
This course is designed for the individual who is working in a child care center or wishes to expand work in or is working in day care administration and supervision. Areas to be covered include setting up a program, personnel, management, fiscal management, systematic planning for development, child care operations, public relations, evaluation, and human relations.

GCG 0020 Making Child Care Teaching Materials
This course is designed to teach teachers how to make child care teaching materials at little or no cost. It is especially appropriate for the individual who is already employed in the child care field.

GCG 0025 Child Day Care Worker In-Service Training
This course is designed to assist child day care workers in improving on site, the quality of their care of young children. The areas of training to be covered include child growth and development, child care programming and activities, health and safety practices, nutrition and good eating habits, design and use of physical space, working with parents, community health and social service resources, day care for multi-lingual children, day care for handicapped children, day care home administration and handling behavior problems.

GCG 0040 Child Care Trainer
This course provides supplemental training to individuals who meet the criteria to be instruction of the HRS Statewide Child Care Working Course.

GCG 0045 Family Day Care Training
This course provides supplemental training to family day care home providers. The area covered include state and local rules and regulations, Child Growth and Development and Health, Safety and Nutrition.

CHD 0100 Child Development Associate Preparation Course
This course is designed as a supplementary instruction and is a competency-based, individualized, and pre-certification pre-/in-service training course designed to provide the student with the skills and competencies required to become a Child Development Associate.

CHD 0103 State Child Care Worker In-Service Training Course
The State Child Care Worker In-Service Training Course will provide instruction in the following areas: state and local rules and regulations which govern child care; health, safety, and nutrition, identifying child abuse and neglect, and child care and development. The course is designed for those who are employed in child care centers.

GJD 0201 Law Enforcement Recertification Training
This course is designed to receive the recertification training requirements for certified law enforcement officers as established by the State Criminal Justice Standards and Training Commission. Areas of instruction and training include firearms, emergency vehicle operations, human and community relations, first aid and CPR, self-defense, supervision and management, riot control, and other areas as needed.

GJD 0201 Law Enforcement Recertification Training
This course is designed to receive the recertification training requirements for certified law enforcement officers as established by the State Criminal Justice Standards and Training Commission. Areas of instruction and training include firearms, emergency vehicle operations, human and community relations, first aid and CPR, self-defense, supervision and management, riot control, and other areas as needed.

CPT 0202 Basic Firearms Qualification Course
This course is designed for in-service individuals who must be certified to carry firearms but have not completed a basic course (police, corrections or auxiliary) course. Firearms instruction will include proper handling of the primary service weapon on the range, in operational and off-duty situations. Safety, loading, unloading, care, cleaning and mechanics will also be covered. The course includes compliance with State Criminal Justice Standards and Training Commission requirements.

CPT 0212 Firearms Familiarization
This course is designed to provide in-service personnel basic firearms training to those organizations in need of training which does not fall under the Criminal Justice Standards and Training Commission requirements. Firearm instruction will include safety, handling, mechanics, loading, unloading, care, cleaning, and range procedures.

CPT 0233 Firearms Requalification
This course is designed for the quarterly requalification requalification of in-service auxiliary individuals who have previously been certified through a basic firearms program. Firearms instruction will cover safety, handling, mechanics, loading, unloading, care, cleaning, and range procedures. The course is in compliance with State Criminal Justice Standards and Training Commission requirements.
CJT 0421 Law Enforcement Basic Emergency Vehicle Operation

This course is designed for in-service police officers, recruits, and other law enforcement personnel. It is an intensive program of study dealing with vehicular dynamics, the driver's mental state during emergency situations and the driver's ability to successfully perform measured skills tests. The student will also receive training in accident avoidance and crash procedures, crash site survivability and self-protection in the case of disablement. The student will be trained to perform routine safety checks on the vehicle and to recognize potential mechanical defects. The course also includes discussions of civil liability resulting from negligent operation of motor vehicles.

CJT 0422 Law Enforcement Refresher Emergency Vehicle Operations

This course is designed as a refresher for the Basic 24-Hour Police Driving Course, and will be used as annual recurrent in-service training for police and other law enforcement personnel. The student who is an in-service law enforcement officer will receive a review of the driving techniques previously taught, with emphasis on hand and feet movements, braking, shift control and accident avoidance. This program may also be tailored to provide more advanced training in those areas when special needs occur.

CLT 0114 Specialized Clothing

This course includes a combination of theory and laboratory and classroom experiences and is designed for students who have mastered basic construction skills. Major concepts include advanced construction techniques, special fitting problems, use of special fabrics and trim, design details, designer patterns, linings and underclothes, and special finishing techniques. The instructional activities include the construction of selected items such as bridal and evening wear, men's wear, children's wear, women's wear, lingerie, sportswear and fashion accessories. Concepts in management, safety, free enterprise, and consumer and economic education are taught as they relate to instruction.

CLT 0312 Basic Clothing Construction

This course is designed as a supplementary instruction for homemakers. The student will learn the proper procedure involved in developing techniques in clothing construction and the course includes a study of pattern selection, including body measurements and simple alterations, fabric selection and preparation with emphasis placed on "easy-to-sew" patterns and fabrics, selection, use and care of sewing and pressing equipment, completion of a garment, and selection of suitable accessories.

CLT 0313 Advanced Clothing Construction

This course is designed as supplementary instruction for homemakers who have completed Basic Clothing Construction. It includes developing the ability to make more difficult pattern alterations, use of more complicated patterns, use and care of fabrics requiring special treatments, and completion of at least one garment using more advanced techniques and details which give individuality to the garment that will be required.

CLT 0330 Basic Clothing Construction for Seniors

This course is designed as introductory instruction for senior adults. It will include learning basic procedures involved in clothing construction, a study of pattern selection including body measurements and simple alterations, fabric selection, and completion of a simple garment.

CMP 0510 Intermediate Clothing Construction

This course is designed as supplementary instruction for homemakers who have completed Basic Clothing Construction, and includes a study of more difficult construction techniques and of fabrics more difficult to handle than were used in Basic Clothing Construction.

CMP 0512 Basic Tailoring

This course is designed as supplementary instruction for the person who has demonstrated proficiency in the skills of clothing construction and includes selection, use and care of fabric suitable for tailoring techniques. The construction of a tailored garment, such as a jacket, will be required.

CMP 0516 Custom Dressmaking

Course work includes supplementary techniques and skills in constructing custom made clothing. Students should acquire skills which will enable the student to become self-employed as a custom dressmaker.

CMP 0517 Short Cuts in Sewing

This course is designed for those who are proficient in the basic clothing construction techniques but would like to make quick, casual clothes and children's clothes. This course will include supplementary instruction in short cuts in marking, construction, and finishing. Emphasis will be placed on efficiency and economy.

CMP 0518 Sewing Short Cuts for Seniors

This course is designed for senior adults who know the basic techniques of clothing construction, but who would like to learn techniques for making quick, casual clothes. This course will include supplementary instruction in short cuts in marking, construction, and finishing. Emphasis will be placed on efficiency and economy.

CMP 0520 Fashion Design and Flat Pattern Drafting

This course is designed for students with prior experience in clothing construction who are interested in designing garments for themselves and others. Major concepts of the course include the influence of individuals on fashion, fashion history, and the application of design and marketing techniques to fashion, and designing and constructing a garment. Persons with complicated fitting problems and those who wish to create individual fashions will benefit from the course.

CMP 0522 Wardrobe Accessories for Seniors

This course, which requires basic skills, is designed for the senior adult who is interested in enhancing and extending his/her wardrobe by learning how to make hats, belts, scarves, ties, lapel ornaments, or any other accessory. Development of personal creativity is emphasized.

CMP 0530 Intermediate Clothing Construction for Seniors

This course is designed for senior adults who have completed Basic Clothing Construction for Seniors, or who already have basic sewing skills. It includes the use of more difficult patterns, learning to make pattern alterations, and completion of one garment using more advanced techniques of sewing.

COP 0599 Vocational Cooperative Education

Course options A-D provide job entry training that corresponds with the second through the fifth level of training in a vocational program. The student will receive a combination of classroom and on-the-job instruction in his/her occupational area.

COR 0418 Basic Training for Correctional Officers

The basic training for correctional officers is designed specifically for job entry training to give each student a basic understanding of the duties and responsibilities of the line correctional officer. In addition, it is designed to give the student an overview of the other related fields within the criminal justice system. Specific areas in which the student will receive instruction include operational procedures, legal aspects of corrections, supervisory practices, and technical skills. NOTE: Course is restricted to individuals sponsored with intent of employment by area law enforcement agencies.
COR 0326 In-Service Correction Training
This course is designed to provide supplementary in-service instruction of new correctional personnel. Specific areas of instruction include numerous subjects such as institutional and operating procedures, mechanics of search, fingerprinting, confessional content, discipline, interpersonal communication, counseling and guidance, offender treatment, medical, social and parole services, records and report writing, basic skills and firearms.

COY 0309 Cosmetology I
This is an introductory course and is designed to provide students with the essential concepts in the field of Cosmetology. In addition to classroom instruction, this course will include, through laboratory experience, all of the major concepts and practices of Cosmetology.

COY 0310 Cosmetology II
Prerequisite: COY 0309 or consent of professor. This course includes a combination of theory and working in the laboratory. Major concepts and practices introduced in COY 0309 will be continued. Intermediate skills will be developed in the individual student's salon.

COY 0311 Cosmetology III
Prerequisite: COY 0309 and COY 0310 or consent of the professor. Theory and practices included in the State Board preparation are emphasized. In addition, a practical application of skills and techniques with emphasis on speed will be stressed in an effort to get the student's performance up to an employer's competency level.

DOS 0010 Basic Current Dental Concepts
This course provides supplementary instruction for the dental health professional which may include the dentist, the assistant, and/or the hygienist. Topics may include a general survey of office management, dental procedures for the dental term, specific dental techniques, evaluation of student materials in dentistry, patient care, office administration, maintaining necessary records, financial aspects of dental practice, legal aspects of dental practice, specific dental therapeutic measures, and expanded duties for the dental auxiliary.

DOS 0020 Intermediate Current Dental Concepts
This course provides supplementary instruction for the practicing dental health professional. Topics include a detailed survey of office management, dental procedures for the dental term, specific dental techniques, evaluation of modern materials in dentistry, patient care, office administration, maintaining necessary records, financial aspects of dental practice, legal aspects of dental practice, specific dental therapeutic measures, and expanded duties for the dental auxiliary.

DOS 0030 Advanced Current Dental Concepts
This course provides supplementary instruction for the practicing dental health professional who may include the dentist, the assistant, and/or the hygienist. Topics include an advanced study of office management, dental procedures for the dental term, specific dental techniques, evaluation of modern materials in dentistry, patient care, office administration, maintaining necessary records, financial aspects of dental practice, legal aspects of dental practice, specific dental therapeutic measures, and expanded duties for the dental auxiliary.

DOS 0030 Diesel Engine Mechanics
This course is designed as supplementary instruction for persons already employed in the field or in a related field. Instruction will include theory, maintenance procedures, and safety precautions associated with diesel powered engines.

EER 0081 National Electrical Code Review
This course is designed for persons employed in the electrical field and provides a review of the code and provides a review of the code and derivations included in the Code Book. It is required to practice electrical work, such as planning, designing, and constructing buildings, as well as repairing and maintaining electrical equipment.

EER 0035 AC/DC Transformers and Magnetic Motor Starters
This course is designed for persons employed in the electrical field and provides a review of the code and derivations included in the Code Book. It is required to practice electrical work, such as planning, designing, and constructing buildings, as well as repairing and maintaining electrical equipment.

EER 0010 Single and Polyphase Transformers
This course is designed for persons employed in the electrical field and provides a review of the code and derivations included in the Code Book. It is required to practice electrical work, such as planning, designing, and constructing buildings, as well as repairing and maintaining electrical equipment.

EER 0013 Electrical Theory
This course is designed for persons employed in the electrical field and provides a review of the code and derivations included in the Code Book. It is required to practice electrical work, such as planning, designing, and constructing buildings, as well as repairing and maintaining electrical equipment.
transistor amplifiers, and introductory digital electronics. This course is intended solely for the purpose of ensuring that military students are current in their knowledge of the rapidly changing field of electronics. At the completion of the course the student will be given a comprehensive test. Students who successfully pass the test and who present a Department of Defense Form 295 (Application for the Evaluation of Educational Experience During Military Service) to the Guidance Registration Office will receive the appropriate credit.

ELS 309 Radio Operators Training Course
This course is designed as supplementary instruction in radio operating procedures and FCC regulations as they apply to amateur radio operators. Training in the International Morse Code, and basic Electronic Theory is included. The student will have the opportunity to take the Novice Class Radio Operators license examination upon completion of the course. Tests are supplied by the Federal Communications Commission (FCC) and only those passing this exam will recieve their operators license.

ELS 0120 Examination Preparation: Radiotelephone Operators License
A review of material for the Federal Communications Commission Commercial Radiotelephone Operators License including communication laws, operating procedures, basic and advanced electronic theory and examination procedures.

FIS 0390 FMP Marine/Industrial Electricity
This course is designed to meet the needs of employees and underemployed employees in the marine/industrial electricity field.

EMS 0965 Basic Life Support
This course is designed as supplementary instruction to provide a periodic update on cardio-pulmonary resuscitation.

EMS 0119 Fundamentals of Emergency Medical Care
Corequisite: EMS 0320. This course is designed for persons already employed in a public service field and includes current techniques practiced by a First Level EMT providing emergency medical care. On successful completion of this course and the corequisite, EMS 0320, one is qualified to take the State Registry Examination for EMT Medical Technician. EMS 0119 and EMS 0320 must be taken at the same time.

EMS 0120 Fundamentals of Emergency Medical Care (Clinical Experience)
Corequisite: EMS 0119. Emergency procedures for life-threatening problems will be demonstrated and practiced in the college laboratory. Clinical rotation will be required in local hospital emergency care facility. This course is corequisite to EMS 0119 and can be taken only in combination with that course.

EMS 0140 Victim Rescue
This course is designed as supplementary instruction and includes a review of victim rescue operations and the use of equipment tools. It is approved for continuing education units with the Emergency Medical Services.

EMS 0381 Basic Review Emergency Care
This is a 32-hour refresher course for those already employed in the field who need a review for three-year re-certification by the Division of Health.

EMS 0391 Advanced (Rescue) Emergency Care
This course is designed as supplementary instruction and includes a review of life saving procedures, intravenous fluid therapy and use of various equipment, such as defibrillators and synchronizers.

EMS 0395 Emergency Medical Technology Seminar
This seminar is designed as supplementary instruction to upgrade the skills of the working emergency medical technician.

EMS 0733 Basic Life Support Instructor
This course is designed as supplementary instruction to enable those with the Basic Life Support programs in health careers to become instructors.

ENR 0003 Gasoline Engine Mechanic
This course includes training in the inspection and repair of the mechanical equipment of gasoline powered engines (other than automobiles and trucks), including motor repair, carburetor adjusting, fuel line cleaning, generator adjusting, valve replacing and grinding, piston ring installing, and replacing broken or damaged parts. This course is designed primarily for off-campus supplementary instruction.

FNR 0090 Changing Technology in Gasoline Vehicles
This course is designed to teach the operation and associated functions of gasoline vehicles. Specific emphasis will be placed on GM products and safety.

EXV 0311 Electrical Concepts and Safety
This course is designed to teach job entry level skills in industrial electronics. Topics covered include licensing requirements, working conditions, wages and benefits, job specialization, course counseling and safety.

EXV 0312 Electrical Hand and Power Tools
This course is designed to teach job entry level skills in recognizing and operating electrical trade-related hand and power tools. Topics covered include knock-out punches, hammers, lead cutting dies, cutoffters, crimpers and power drivers. Special emphasis will be placed on safety.

EXV 0313 Special Purpose Electrical Cutters
This course is designed to teach job entry level skills in wiring and installation requirements for special purpose electrical cutters. Topics covered include ranges, dryers, washers, garbage disposal, fans, heating and air conditioning.

EXV 0314 Electrical Materials
This course provides job entry level training in recognizing the basic materials used in electrical installations.

EXV 0315 Low Voltage Electrical Circuits
This course provides job entry level training in materials, wiring, and installation of low voltage signaling, alarm/warning, and lighting control circuits.

EXV 0316 Conduit Installations
This course provides job entry level training in installation requirements, bending methods, and calculations for electrical conduit installations.

EXV 0317 Electrical Switching Circuits
This course provides job entry level training in wiring and installation requirements for typical electrical switching circuits and includes single pole, three-way and four-way switches.

EXV 0318 Outdoor and Lighting Circuits
This course provides job entry level training in wiring and installation requirements for typical outdoor and lighting circuits. The topics covered include residential, commercial, and industrial lighting fixtures.
EXV 0319 Basic Electrical Theory
This course is designed to provide the basic concepts of electrical theory required for entry into the electrical trade.

EXV 0320 Single Phase Distribution Systems
This course provides job entry level training designed to familiarize the student with the installation requirements for single phase residential and commercial electrical distribution systems.

EXV 0321 Polyphase Transformers
This course provides job entry level training in the operation, calculations, connections and installation requirements for polyphase transformers.

EXV 0322 Single Phase Transformers
This course provides job entry level training in the operation, calculations, and installation requirements for single phase transformers.

EXV 0323 Polyphase Distribution Systems
This course provides job entry level training designed to familiarize the student with the installation requirements for polyphase commercial and industrial electrical distribution systems.

EXV 0324 Electric Motors I
This course provides job entry level training designed to teach the theory, operation, and characteristics of A.C. and D.C. motors.

EXV 0325 Electric Motors II
Prerequisite: EXV 0324 or consent of instructor. This course is designed to teach A.C. and D.C. motors. Topics covered include wiring, connections, repair, and troubleshooting of A.C. and D.C. motors. It is a continuation of Electric Motors I.

EXV 0326 Electrical Servicing
This course provides job entry level training in the repair and installation requirements for overhead and underground electrical services.

EXV 0327 National Electrical Code I
This course provides job entry level training designed to teach the National Electrical Code requirements of chapters 1 through 4 of the National Electrical Code Handbook.

EXV 0328 National Electrical Code II
Prerequisite: EXV 0327 or consent of instructor. This course provides job entry level training to enable the student to prepare for the electrical calculation portions of the examination. Topics covered include voltage drop, temperature, correction, conduct fill, bow fill, and service entrance.

EXV 0329 National Electrical Code III
Prerequisite: EXV 0328 or consent of instructor. This course provides job entry level training to enable the student to prepare for the electrical calculation portion of the master electrician level code examination. The course includes, but is not limited to, polyphase, multiconductor, commercial, schools, and motors.

EXV 0330 Motor Controls I
This course provides job entry training designed to teach the student to read and interpret motor control schematics, wiring, and ladder diagrams.

EXV 0331 Motor Controls II
Prerequisite: EXV 0330 or consent of instructor. This course teaches job entry level skills to enable the student to learn to wire, connect, and troubleshoot typical motor control circuits.

EXV 0332 Motor Controls III
Prerequisites: EXV 0331 or consent of instructor. This course provides job entry level training designed to teach wiring, troubleshooting, and repair of complex motor control circuits, including automatic control systems.

EXV 0333 Semiconductor for Electricians I
This course provides job entry level training designed to teach semiconductor theory as related to the electrical trade. Topics include but are not limited to diodes, transistors, gates, and silicon controlled rectifiers.

EXV 0334 Semiconductor for Electricians II
Prerequisites: EXV 0333 or consent of instructor. This course provides job entry level skills designed to teach the basic solid state circuits used in electrical circuitry. Topics include but are not limited to industrial power supplies, control circuits, timers, and basic motor control.

EXV 0335 Blueprint Reading Electrical
This course provides job entry level training to enable the student to read and interpret construction blueprints in order to understand the requirements for electrical installations.

EXV 0336 Electrical Theory I
This course provides job entry level training designed to teach the principles of D.C. electrical theory. Topics covered include, but are not limited to, voltage, current, resistance, power, current, and parallel circuits.

EXV 0337 Electrical Theory II
Prerequisite: EXV 0336 or consent of instructor. This course provides job entry level skills designed to teach the principles of A.C. electrical theory. Topics covered include, but are not limited to, superposition, impedance, power factors, and vectors.

EXV 0338 Electrical Test Equipment
This course provides job entry level training in the use of common electrical test instruments. Test equipment topics covered include but are not limited to digital and analog multimeters, ammeter equipment, and ohmmeter testers.

EXV 0341 Mathematics for DC Electricity
This course is designed to teach entry level mathematical skills necessary for success in the study of DC electricity. Topics covered include: algebra, properties of quadrants, square roots, logarithms, trigonometry, beginning algebra, electronics, and electromagnetism.

EXV 0342 Mathematics for AC Electricity
This course is designed to teach entry level mathematical skills required for understanding of the concepts in AC Electricity. Topics covered include: basic algebra, logarithms, trigonometry, phase, frequency, and phase shifts.

EXV 0343 Mathematics for AC Electricity
This course is designed to teach entry level mathematical skills required for understanding of the concepts in AC Electricity. Topics covered include: basic algebra, logarithms, trigonometry, phase, frequency, and phase shifts.
EXV 0514 AC Electricity
Pre-requisite: EXV 0512. This course is designed to teach entry level skills in basic AC electricity and typical AC circuits. Topics covered include: AC vs. DC, generating AC, AC waveforms - sine and rectangular amplitude and waveform shapes; phase relationships, power, AC resistors, capacitors, and inductors, transformers and polyphase essentials. Laboratory experiences reinforce the course topics.

EXV 0515 Electronic Devices
Pre-requisite: EXV 0514 or consent of instructor. This course is designed to teach entry level skills in basic semiconductor devices used in electronics. Topics covered include: vacuum tube basics, solid-state diodes, bipolar and field-effect transistors, digital devices and the fundamentals of integrated circuits. Laboratory experience is used to reinforce the course topics.

EXV 0516 Electronic Circuits
Pre-requisite: EXV 0515 or consent of instructor. This course is designed to teach entry level skills in typical circuits common to analog systems. Topics covered include: operational amplifiers, operational and auxiliary power supplies, oscillators and AM/FM modulation techniques. Laboratory experience is used to reinforce the course topics.

EXV 0517 Mathematics for Digital Electronics
Pre-requisite: EXV 0515 or preceptor's consent. This course is designed to teach entry level skills in digital logic concepts. Course topics include: number systems, alphanumeric exchange code systems and Boolean algebra.

EXV 0518 Digital Electronics
Pre-requisite: EXV 0516 or consent of instructor. Corequisite: EXV 0517. This course is designed to teach entry level skills in digital logic circuits and electronics. Topics covered include logic gates, combinational logic circuits, typical integrated circuit families, flip-flops and sequential circuits. Laboratory experiences are used to reinforce the course topics.

EXV 0519 Basic Instruments and Electronic Troubleshooting
This course is designed to teach entry level skills in the operation, calibration and repair of typical electronic measurement instruments. An approach to the selection of electrical systems instruments will also be taught. Laboratory experiences are used to reinforce course topics.

EXV 0520 Microprocessors
Pre-requisite: EXV 0518 or consent of instructor. This course is designed to teach entry level skills in microprocessors. Topics covered include: machine and assembly level programming and interfacing techniques using the 6800 MPU, and other popular processors. Laboratory experiences are used to reinforce course topics.

EXV 0521 Tools and Mechanical Systems for Technicians
This course is designed to teach entry level skills in tools and machines. Topics covered include: selection of the basic tools, principles and applications of mechanical devices, force, power, machines and gear trains, hand and power tools and safe tool use.

EXV 0522 Motors, Generators, and Transformers
Pre-requisite: EXV 0514. This course is designed to teach entry level skills in the variety of AC and DC motors, generators and transformers essential to industry. Topics covered include: single phase and 3-phase transformers and AC motors, generation of DC and AC, and DC motors.

EXV 0523 Basic Industrial Control
Pre-requisite: EXV 0520 or consent of instructor. This course is designed to teach entry level skills in instrumentation and control systems used in industry. Topics covered include: physical-phenomenon sensing, transducers, relays and relay logic, timing and time delay devices and synchro devices.

EXV 0524 Industrial Control Systems
Pre-requisite: EXV 0523 or consent of instructor. This course is designed to teach entry level skills in industrial electronics control. Topics covered include: digital motor control, manual magnetic controllers, relay logic, digital logic and direct digital control and programmable controllers.

EXV 0525 Electronics Fabrication
Pre-requisite: EXV 0525. Corequisite: EXV 0516 or consent of instructor. This course is designed to teach entry level skills in typical tools, materials and techniques of electronic hardware fabrication. Topics covered include: clip and SMD soldering, standard circuit boards and chassis assembly.

EXV 0529 Schematic Diagram Analysis and Interpretation
Pre-requisite: EXV 0516 or consent of instructor. This course is designed to teach entry level skills in interpreting schematic and wiring diagram symbols. Topics covered include: schematic diagrams and troubleshooting procedures and the testing of DC and AC systems through a system.

EXV 0560 Fundamentals of Radio Operation
This course is designed to teach entry level skills in radio operating procedures and practice. Topics covered include: Federal Communications Commission rules and regulations and the electronic theory.

EXV 0562 Loran "C" Operation
This course is designed to teach entry level skills in the basic operation of the LORAN "C" Navigation receiver. Topics covered include: basic operation and troubleshooting.

EXV 0564 Advanced Troubleshooting Procedures for Marine Electronics
Pre-requisite: EXV 0519 or consent of instructor. This course is designed to teach entry level skills in advanced troubleshooting with relation to marine navigation. Topics covered include radar and two-way communications systems, the use of analyzers and various forms of signal generators.

EXV 0564 Two-Way Communications Systems
This course is designed to teach entry level skills. Topics covered include the principles of two-way communications systems, modulation in analog systems, mobile base systems, broadcast systems and marine radio communications.

EXV 0565 Basic FCC General Radiotelephone License Preparation
Pre-requisite: EXV 0566. This course is designed to teach entry level skills in preparation for the Federal Communications Commission General Radiotelephone License examination. Topics covered include: FCC requirements, mathematic form and application, basic electronics, power supplies and components.

EXV 0566 Advanced FCC General Radiotelephone License Preparation
Pre-requisite: EXV 0565 or consent of instructor. This course is designed to teach entry level skills and is a continuation of Basic FCC General Radiotelephone License Preparation. Topics covered include: ship radar equipment, audio broadcast systems, electronic and navigation, radar and microwave principles, and regulations.
This course presents the developmental process of adolescence as it occurs within the context of the rapidly changing American family. The course explores several general issues: family communication, values, peer group, problem solving, conflict resolution, and setting limits. Specific areas such as drug and alcohol use and abuse, sexuality, and planning for the future will also be addressed.

**FCR 0410 Credit Administration**
This course, designed as supplementary training for persons employed in a related field, concerns itself with a statement and discussion of factors influencing and determining loan policies. Methods of credit investigation and analysis, credit standards, collection methods, specific credit problems, and regular, as well as unusual types of loans, are outlined and discussed.

**FCR 0411 Investments**
Because the bank's needs for primary reserves and loanable funds limit the funds available for investment, this supplementary training course describes the nature of such funds and how their uses are determined. It also studies the primary and secondary reserve needs of commercial banks, the sources of reserve, and their random and cyclical fluctuations, showing the influence of these factors on investment policy. This analysis is followed by a study of yield changes as they affect a bank's long-term holdings.

**FCR 0412 Bank Communication**
In this course, the student is given opportunity to study all phases of speech situations. The text is directed primarily to the student already employed in, and seeking to become proficient in, the communication field of banking. This course will help prepare the student in proper procedures on the public platform, and other speech situations. Having studied the basic principles involved in organizing and preparing a speech, the student is given suggestions to aid in developing speaking ability in such situations as conferences, panel discussions, radio, and television.

**FCR 0413 Investments Securities**
This course is designed as supplementary training for persons already employed in a related field. It helps the student understand how the stock market works, the important role it plays in our nation's economy, and how it helps people share in the growth of our business enterprises.

**FCR 0415 Bank Teller Training**
This course is designed as job-related training to enable individuals to quickly function efficiently on the job as new tellers. Also, tellers with experience can strengthen specific skills and became aware of the professional aspects of their jobs. Teller training can improve performance and attitudes towards co-workers and customers.

**FCR 0420 Savings and Loan Principles**
This course stresses the basic principles of savings and loan organizations and explains the procedures involved in their operation. It is designed specifically as supplementary training for persons employed in a related field.

**FCR 0421 Banking Business Administration**
In this course, emphasis is placed on the managerial responsibility of coordinating carefully the many facets of a business enterprise. It also stresses the background of administration, financial management, production, labor-management relations, marketing, coordination and control, and public relations problems. It is designed specifically as supplementary training for persons employed in a related field.

**FCR 0424 Economics of Banking**
This course sets forth the current principles explaining how our economic system operates and is designed specifically as supplementary training for persons employed in a related field. It takes up the determination of relative value in markets with different types of competition, and applies the underlying principles to incomes and commodities. Also included are the basics of international economics and finance, and the limitations and related pitfalls of economics.

**FCR 0426 Trust Function Services**
This course is designed specifically as supplementary training and presents a complete picture of the services rendered by institutions engaged in trust business. It endeavors to keep clear the distinction between personal and legal aspects of trust functions.

**FCR 0427 Bank Accounting**
This course is designed as supplementary instruction for persons already employed in the field, or in a related field. It is based on a new second edition text that supplies a comprehensive treatment of all up-to-date principles and also gives the student ample opportunity through examples, illustrations, and correlated activities in learning how the principles are applied. End-of-unit summaries have special sections for both principles and managerial implications.

**FCR 0431 Analyzing Financial Statements**
This course is organized into two main sections: Characteristics of Financial Statements and Financial Statement Analysis. The first section serves as a useful review of basic accounting principles for those students who have studied accounting. For those who have not, this section provides the minimum accounting background necessary for profitable study of financial statement analysis. This course is designed specifically as supplementary training for persons employed in a related field.

**FCR 0432 Banking Principles**
This course is designed specifically as supplementary training and presents the fundamentals of bank functions in a descriptive fashion so that the beginning banker may view the profession in a broad and operational perspective. The descriptive orientation is intentional. Banking is increasingly dependent upon personnel who have the broad perspective so necessary for career advancement.

**FCR 0433 Money and Banking**
This course is designed specifically as supplementary training for persons employed in a related field. It stresses the practical aspects of money and banking and emphasizes the basic monetary theory taught by the banking student to apply the student's knowledge to the particular job. Historical treatment has been kept to a minimum. Emphasis is also placed on such problems as government stabilization, types of spending, the rule of gold, limitations of central bank control, government fiscal policy, balance of payments and foreign exchange yield curves and the structuring of portfolio.

**FCR 0436 Banking Installment Credit**
This course is designed specifically as supplementary training for persons employed in a related field. It concentrates on the techniques of installment lending. Emphasis is placed on establishing the credit, obtaining and checking information, servicing the loan, and collecting the amounts due. Each phase of a bank's installment credit operation should be carefully scrutinized to be certain that the more efficient methods are employed, for only through an efficient operation can a bank maximize its profits on this particular kind of credit. Other topics discussed are inventory financing, special loan programs, business development and advertising, and the public relations aspects of installment lending.

**FCR 0437 Proof Operations/Financial Institutions**
This course is designed as supplementary training to enable individuals to quickly function on the job as Proof Operators in financial institutions and retail establishments.
FCC 0410 Credit Union
This course is designed to provide the knowledge and tools necessary to make credit union employees more professional and better informed and to attain leadership positions which are very important today.

FCC 0560 Customer Service/Financial Institutions
This supplemental course is designed to train employees of financial institutions to quickly function efficiently on the job as customer service representatives. Also, customer service personnel will strengthen their knowledge of financial services and human relations and abilities to cross-sell.

FCC 0510 New Accounts/Financial Institutions
This supplemental course is designed to train employees of financial institutions to quickly function efficiently on the job in a new accounts department. Also, new accounts personnel can strengthen their abilities in customer relations, product knowledge and documents.

FHP 0905 Firefighter Minimum Standards Course
This course is designed to prepare students for certification and initial employment as a firefighter in the State of Florida. Successful course completion will qualify a student to take the minimum standard written, oral, and practical examination, as administered by the Bureau of Fire Standards and Training. This course is restricted to individuals sponsored with intent of employment by area fire departments.

FHP 0740 Fire/Rescue Basic Emergency Vehicle Operations (FEO)
This course is designed for inexperienced personnel involved in the emergency operation of fire and rescue apparatus and for the recruits enrolled in basic training. The course will deal with the mental and physical state of the driver, both during the emergency run and during the return to the station. The student will perform various exercises on both the road course and various simulated. The student will also receive instruction in the mechanical aspects peculiar to the piece of apparatus being used and in standard avoidance procedures. This course is designed to meet the training requirements for emergency vehicle drivers as established by applicable state laws.

FHP 0741 Fire/Rescue Refresher Emergency Vehicle Operations
This course is designed to serve both as an introductory and as a recurrent course of study for inexperienced operation of fire and rescue vehicles. The curriculum will deal with proper driving techniques including acceleration, braking, speed control and off-road recovery. Special emphasis is placed on public safety and emergency vehicle operation. The student must display proficiency during “hands-on” exercises and on a written examination.

FIF 0310 Firefighter Minimum Standards Course — Phase 1
This course is designed to provide supplementary instruction of basic training. The curriculum will include knowledge of the State Fire Fighter Minimum Standards Curriculum. Specific areas of instruction for this phase include: operations of fire service apparatus and equipment, fire chemistry and behavior, and tools and small equipment.

FIF 0415 Fire Officer Instructor Course
This course is designed for persons already employed in the field. The student will learn the purpose and types of training necessary to fire department operations. In addition, selection criteria for instructors and utilization of training equipment will be presented.

HF 0424 Emergency Vehicle Operations Course
This course is designed for supplementary training and will focus on the construction, maintenance, use, and operation of fire service vehicles. Attention is given to vehicle nomenclature, safe driving practices, apparatus operations, and safety.

FMC 0311 Office Practice
This course is designed specifically as supplementary training for persons in a related field. Instruction includes filing, ten-key adding machine, key driven and electronic calculator, duplicating (spiral and mimeograph), and basic record keeping.

FMC 0312 Office Machines
The types of machines used in a particular class are determined by the needs of the group for whom instruction is provided. Emphasis is placed on the use of the machines in the bookkeeping process. Content of the course is selected from realistic business problems and actual business forms. This course is designed as supplementary instruction for persons already employed in the field, or in a related field.

FMD 0390 EMR Industrial Supervisory Development
This course will be designed to meet the needs of employers and underemployed persons in industry.

FON 0083 Basic Principles of Nutrition
This course is designed as supplementary instruction for persons working in a related field, and includes a study of the basic principles of good nutrition and the relation of food selection to health. The aim is to interpret nutrition in terms of its practical application to the planning, preparing, and serving of meals and relating these meals to the other foods for the week. It also aims to develop an understanding of daily dietary allowances for various age groups and the responsibility for providing them. It includes information on foods with maximum nutritive value and how to purchase, store, and prepare them in order to retain these values to the maximum.

FON 0007 Low Calorie Cooking
The student will acquire knowledge and demonstrate skill in planning and preparing meals designed to promote weight loss. The student will study labels on foods and learn to read labels, "low caloric" or "calories" as applied to food items. Ways to make low calorie dishes attractive and palatable will be emphasized. This course is specifically designed for homemakers.

FON 0101 Nutrition for Seniors
This course is designed especially for seniors. It includes a study of the elementary principles of nutrition, the relation of food selection to health, and ways to improve poor dietary practices. Particular attention will be given to the nutritional needs of senior citizens in order to promote better health in the older adult and prevent illness often associated with poor eating habits.

FON 0102 Low Cholesterol Cooking for Seniors
This course is specifically designed for seniors. The student will acquire the knowledge and skill in planning and preparing foods recommended by physicians and the Heart Association for the older adult. This course is low in cholesterol, and includes instruction on foods, family meals, meals that are low in cholesterol, and techniques for including these foods in family meals. The course is designed to meet the needs of homemakers.

FON 0109 Bread Making
This course includes a study of the ingredients and techniques involved in making and baking a variety of breads. Included will be a study of nutritional values, ingredients, methods of mixing, baking, storage and service of breads. Light and yeast breads and sweet rolls will be emphasized, as well as breads of foreign countries. This course is designed especially for homemakers.

FON 0110 Specialized Foods
This course includes a combination of theory and laboratory and community experiences. Major concepts include characteristics of food.
planning, selecting, preparing, serving and storing foods for special occasions, foreign cuisines; creative cuisine; alternative ways of serving food; food preparation methods; food presentation; energy saving; food preparation techniques; and techniques in using specialized foods and equipment. Concepts in management, safety, fire prevention, and consumer and economic education are taught as they relate to instruction.

FSM 0512 Quantity Cooking
This course is designed as supplementary instruction for persons already employed in the field, or in a related field. The student will learn proper techniques to improve quality and quantity of food served. It includes principles and techniques of quantity food production. Actual preparation of food in quantity provides on-the-job experience using techniques and equipment learned. Trainee learns equipment, use of available serving methods to assure adequate portion, and gain experience in calculating and recording quantities of food used. Training students to serve.

FSM 0514 Supervised Food Service Worker
This course is designed to prepare persons for employment in the food service area. The student will learn, under supervision, in the preparation and serving of food in institutions such as hospitals, homes for the aged, nursing homes, children's homes, and day care centers. Following hygiene practices in preparing food for cooking, during the cooking process, serving and storing; follows safety regulations in use of all types of equipment and the handling of hot foods; uses the basic skills required in preparation of standard large quantity recipes for vegetables, salads and dressings, milk cooke, egg cookie, soups, meat, fish and poultry, quick breads, sandwiches and desserts, serves food at table or as trays according to situation. The student will organize work in relation to work space and within time limitations.

FSM 0517 Basic Food Preparation
This course is designed for homemakers, to include purchase procedures; use, care, storage and arrangement of equipment; and management of human materials. Specialized activities include experience in planning, preparing, and serving food for a variety of occasions.

FSM 0520 Catering I
This course is designed as supplementary training for persons employed in home or commercial catering. Instruction includes: menu planning for catered events; preparation and service of food; purchase, use and care of equipment; management of human and material resources. Specialized activities include field trips to commercial catering and participation in commercially catered affairs.

FSM 0530 Basic Food Preparation for Seniors
This course is designed for senior adults, to include purchase procedures; use, care, storage and arrangement of equipment, and management of human and material resources. Specialized activities include experiences in planning, preparing, and serving food for a variety of occasions, developed in accordance with the senior adult's specific requirements; considering special needs and limited funds of today's senior citizen.

FSM 0540 Advanced Foods
This course is designed as supplementary instruction for homemakers and includes the more specialized preparation of food for family meals such as meats, soups, sauces, poultry, vegetables, and desserts. Consideration will be given to budgeting, menu planning, and storing foods, as well as table service for all occasions.

FSM 0513 Food Service Management
This course is designed as supplementary instruction for persons already employed in the field, or in a related field. The course will assist employees in finding and solving problems of quantity food service. It includes characteristics of a good food service, and its place in the total education program with comprehensive overview of the principles of menu planning, purchasing, food preparation and service, equipment, use and care, sanitation and safety, personal cleanliness and grooming, and the value of a good working relationship within the organization and with the school community. Emphasis is placed upon the need for greater knowledge in operating school food services, to assure maximum benefits to the children and the need for continuous training.

FSM 0518 Sanitation and Safety
The student will explore the scientific rationale for sanitation and safety practices which are enforced for group protection in institutions and food service facilities. The student will identify causative agents of food-borne illnesses and demonstrate preventive techniques by adhering to sanitation standards. Emphasis is placed on methods of accident and fire prevention.

FSM 0521 Food Service Apprenticeship I
The student will acquire knowledge and skills needed by a professional cook in the food service industry, including preparing, cooking, cleaning, and cooperation with other workers required. This course will provide the student with the skills required for the apprenticeship program as stipulated by the National Apprenticeship Training Program of the Educational Institute, American Culinary Federation. The duration of the training program is three years. The program is comprised of three courses.

FSM 0525 Child Care Food Handler's and Manager's Course
This course is designed to offer child care food handlers and managers with information on sanitation, nutrition and meal planning, child development, accounting and record keeping, and food purchasing and service.

GMR 0310 Cashier/Server/Checker
This course is specifically for part-time work and includes instruction in the proper methods of handling funds, money, and cash handling. The student will learn to handle merchandise, receive cash, and balance cash drawers.

GRA 0310 Printing
This course is designed specifically for part-time work. It includes instruction in the proper methods of handling funds, money, and cash handling. The student will learn to handle merchandise, receive cash, and balance cash drawers.

HEP 0310 Slipcover Construction
Course work includes instruction in basic sewing techniques, techniques of handling various fabrics, making cord, fitting cord to corners, and assembling slipcovers. This course is also for those who have already employed in the field. It includes a study of the types of fabrics and their care, selection of materials to be used, and the various kinds of slipcovers and the skills required to make them. This course is designed for persons already employed in the field, or in a related field. It includes a study of the principles of menu planning, purchasing, food preparation and service, equipment, use and care, sanitation and safety, personal cleanliness and grooming, and the value of a good working relationship within the organization and with the school community. Emphasis is placed upon the need for greater knowledge in operating school food services, to assure maximum benefits to the children and the need for continuous training.

HEP 0314 Interior Design
This course is designed as supplementary instruction for persons already employed in the field, or in a related field. It includes a study of the principles of menu planning, purchasing, food preparation and service, equipment, use and care, sanitation and safety, personal cleanliness and grooming, and the value of a good working relationship within the organization and with the school community. Emphasis is placed upon the need for greater knowledge in operating school food services, to assure maximum benefits to the children and the need for continuous training.
HEF 0105 Advanced Interior Design
This course is designed as supplementary instruction for the person who has completed HEF 0104. Interior Design. It includes advanced study of the elements and principles of design.

HEF 0310 Drapery Construction
This course is designed as supplementary instruction for persons already employed in the field, or in a related field. Course work includes instruction in choosing fabrics, construction of various types of curtains and draperies, and selection of hardware. A comparison of cost factors is also included. In-service study could develop job entry level skills.

HEF 0312 Furniture Reupholstery
This course includes the selection of cloth materials and equipment, use of power equipment, dismantling of furniture, basic construction processes, fitting the muslin cover, planning and preparing the fabric platform, covering, and preparing the panels, cushions, and upholstered seats, upholstering, chair cushions, and making cushions. This course is designed for persons already employed in the field, or in a related field, for supplementary instruction; however, intensive study could develop job entry level skills.

HEF 0313 Advanced Upholstery
This course is designed as supplementary instruction for persons already employed in the field, or in a related field. This course includes chairmaking, fitting, making chairs, repairing, and spot refresh of furniture, color and color schemes, and headboards; however, intensive study could develop job entry level skills.

HEF 0001 Household Care, Repair and Maintenance
This course is designed as supplementary instruction directed toward making the home owner self-sufficient in handling minor care, repair, and maintenance problems. The course includes problems with electric power, plumbing, emergencies, care and repair of floors and floor coverings, exterior painting, wallpapering, furniture care and repair, miscellaneous repairs, work needed, safety, and combating pests and lice.

HEF 0002 Home Accessories
This course is designed as supplementary instruction, and includes application of techniques and skills in making new or reworking used, necessary items for the home. Project possibilities: bedspreads, dust ruffles, yellow sheets, shower curtains, wall hangings, lamps, lamps, lampshades, curtains, window shades, drapes, table runners, storage boxes, candle making, candle holders, small brads, and covered tags, and other necessary furnishing in which an interest may be expressed by students.

HEF 0003 Seasonal Home Accessories for Seniors
This course, which requires basic sewing skills, is designed for the senior adult who is interested in learning to make accessories for special occasions and celebrations, i.e., holiday decorations, centerpiece, bulb jokes, tablecloths, hats, etc.

HEF 0005 Specialized Housing and Home Furnishings
This course includes a combination of theory, laboratory experiences and community experiences. Major concepts include: planning, selecting and utilizing equipment, furniture, accessories, and household teach, furniture renovation, energy conservation, home improvements, and home maintenance. Concepts in management, safety, free enterprise, consumer and economic education are taught as they relate to instruction.

HEF 0010 Home Accessories for Seniors
This course is designed as an introduction to basic skills and techniques in making new, or re-working used, simple accessory items for the home. Project wall hangings, place mats, storage boxes, table runners, place mats, and other simple accessory furnishings in which an interest is expressed by the students.

IDS 0010 Basic Skills I
Prerequisite: IDS 0010 or permission of the instructor. Corequisite: The first of a non-college job entry training course offered at the Downtown Campus, or permission of the instructor. This course is designed to provide the basic academic skills necessary for completion of the first course in the occupational programs offered at the Downtown Campus. Following testing and assessment, the student will be provided with an individualized instructional plan to upgrade mathematics and reading skills.

IDS 0011 Basic Skills II
Prerequisite: IDS 0010 or permission of the instructor. Corequisite: Enrollment in a non-college job entry training course offered at the Downtown Campus, or permission of the instructor. This course is designed to provide the basic academic skills necessary for completion of the second course in the occupational programs offered at the Downtown Campus. Following testing and assessment, the student will be provided with an individualized instructional plan to upgrade mathematics and reading skills.

IDS 0012 Basic Skills III
Prerequisite: IDS 0011 or permission of the instructor. Corequisite: Enrollment in a non-college job entry training course offered at the Downtown Campus, or permission of the instructor. This course is designed to provide the basic academic skills necessary for completion of the third course in the occupational programs offered at the Downtown Campus. Following testing and assessment, the student will be provided with an individualized instructional plan to upgrade mathematics and reading skills.

IDS 0013 Basic Reading Skills
This course is designed to provide basic reading instruction. The student will be provided with an individualized program to upgrade their reading skills. The amount of hours spent by the student in a particular area will depend on the scores achieved on the Test of Adult Basic Education.

IDS 0014 Basic Mathematical Skills
This course is designed to provide basic reading instruction. The student will be provided with an individualized program to upgrade their mathematical skills in arithmetic reasoning and fundamentals. The amount of hours spent in a particular area will depend on the scores achieved on the Test of Adult Basic Education.

IDA 0541 Pro-Construction Skills
This course is designed to teach job entry level skills to carpenters. Topics covered include the building of doors, stairs, window, door, and wall construction. The course will teach the use of the framing square and a review of working drawings.

IDA 0542 Wall and Floor Framing
This course is designed to teach job entry level skills in carpentry. Topics covered include framing and nailing of walls and floor frames.

IDA 0543 Roof Framing I
This course is designed to teach job entry level skills in carpentry. Topics covered include basic roofing and framing of a gable roof.

IDA 0544 Roof Framing II
Prerequisite: IMA 0543 or consent of instructor. This course is designed to teach job entry level skills in carpentry. Topics covered include basic construction of a roof framing. The course will teach the use of the gable roof.
IEA 0543 Site Preparation and Layout
This course is designed to teach job entry level skills in carpentry. Topics covered include the many aspects of site preparation and layout of buildings and houses.

IEA 0544 Exterior Finish
This course is designed to teach job entry level skills in carpentry. Topics covered include the different types of exterior finishing materials and their application.

IEA 0545 Construction Lumber
This course is designed to teach job entry level skills in carpentry. Topics covered include the different kinds of construction lumber, its growth, and how wood finally becomes lumber.

IEA 0546 Finish Hardware
This course is designed to teach job entry level skills in carpentry. Topics covered include finish hardware, its selection, method of installation, intended use and appearance.

IEA 0547 Rough Hardware
This course is designed to teach job entry level skills in carpentry. Topics covered include metal fastening devices used in constructing a building.

IEA 0550 Wood Products and Wood Substitutes
This course is designed to teach job entry level skills in carpentry. Topics covered include wood, wood products and wood substitutes as it has been transformed into better and more useful forms.

IEA 0552 Foundation Framing
This course is designed to teach job entry level skills in carpentry. Topics covered include the importance of accurate work in laying out buildings with the use of different level measuring instruments.

IEA 0555 Building Adhesives
This course is designed to teach job entry level skills in carpentry. Topics covered include new adhesives as they aid in producing better work and making the application of many kinds of materials easier and faster.

IEA 0556 Power Tools
This course is designed to teach entry level skills in carpentry. Topics covered include safe proper use of radial arm saws, table saws, circular saws, routers and sanders.

IEA 0560 Hand Tools
This course is designed to teach entry level skills in carpentry. Topics covered include the proper use and safety of hammers, ratchets, screwdrivers, and saws.

IEA 0571 Plumbing Concepts and Safety
This course is designed to teach job entry level skills in plumbing. Topics covered include working conditions and opinions available in plumbers. Special emphasis will be placed on safety.

IEA 0572 Fittings and Materials
This course is designed to teach job entry level skills in plumbing. Topics covered include: various types and sizes of fittings, related materials and piping, including copper, P.V.C., cast iron, poly-fl, steel, and pyrex.

IEA 0573 Isometric Piping Drawing Basics
This course is designed to teach job entry level skills in plumbing. Topics covered include: single-line piping drawings on an isometric angle.

IEA 0574 Advanced Mathematics for Plumbers
This course is designed to teach job entry level skills in advanced mathematics for plumbers. Topics covered include: practical problems of developed length, volume, area, triangulation, and percentages.

IEA 0577 Valves and Faucets
This course is designed to teach job entry level skills for plumbers in recognizing and repairing major types and brands of faucets and valves. Topics covered include: gate and globe valves, ballcocks, double valves, tub and shower valves, lavatory faucets, and service sink valves.

IEA 0578 Fixtures and Appliances
This course is designed to teach job entry level skills in plumbing. Topics covered include: installation and troubleshooting of various plumbing fixtures and appliances including kitchen sinks, water closets, bathtubs, showers, water coolers, hose bibs, bidets, faucets, and urinals.

IEA 0579 Plans and Blueprints, Residential
This course is designed to teach job entry level skills in plumbing. Topics covered include: reading residential plans and blueprints for proper installation of plumbing fixtures and piping.

IEA 0578 Joint Fabrication
This course is designed to teach job entry level skills in plumbing. Topics covered include: assembling and fabricating fittings and fixtures to sanitary and potable water systems.

IEA 0580 Design and Layout of Sanitary Drainage Systems, Residential
This course is designed to teach job entry level skills in plumbing. Topics covered include: the design and layout of sanitary drainage systems according to principles of proper installation of fitting usage.

IEA 0580 Pump Application Well, Circulating
This course is designed to teach job entry level skills in plumbing. Topics covered include: various types of shallow well and circulating pumps, disassembly and operating procedures, and troubleshooting systems and components.

IEA 0581 Residential Venting Systems I
This course is designed to teach job entry level skills in plumbing. Topics covered include: venting systems and adaptations, venting, common venting combination waste and vent, utilidor, and loop or circuit vent. Code specified sizing based on B.D.S. will be emphasized.

IEA 0582 Residential Venting Systems II
Prerequisite: IEA 0581 or consent of instructor. This course is designed to teach job entry level skills and is a continuation of Residential Venting Systems I. Actual application of course content will be emphasized. Test student interacts drawings to illustrate concept.

IEA 0583 Solar Domestic Water Heating Systems, Part 1
This course is designed to teach job entry level skills in plumbing.
Topics covered include the principles and techniques of using solar energy to augment the water heating appliances used in present homes, including collector plates (panels), storage vessels, and pumps.

IEA 0584 Solar Domestic Water Heating Systems, Part II
Prerequisite: IEA 0583 or consent of instructor. This course is designed to teach job entry level skills in plumbing and is a continuation of Solar Domestic Water Heating Systems, Part I. Topics covered include: actual component installation and troubleshooting.

IEA 0585 Water Supply Systems
This course is designed to teach job entry level skills in plumbing. Topics covered include: design and layout of water systems, piping, and sizing of water supply, and supply and support systems.

IEA 0586 Design and Layout of Potable Water Systems, Residential
This course is designed to teach job entry level skills in plumbing. Topics covered include: design and layout of potable water systems, proper principles of material type, use, and size. Also covered will be the locations of supply sources and origin.

IEA 0587 Introduction to Mathematics for Apprentices
This course is designed to teach job entry level skills in plumbing. Topics covered include: measurement techniques, including linear and square measurements, and conversion factors. Also covered will be basic mathematical principles.

IEA 0588 Plumbing Hand and Power Tools
This course is designed to teach job entry level skills in plumbing. Topics covered include: recognition and safety measures of plumbing-related hand and power tools. Included will be: steel-fabricating dies and machines, copper-fabricating tools and fixtures, pipe cutting and installation tools, and iron cutting and installation tools.

IEA 0589 The Language of Plumbing (Terms and Definitions)
This course is designed to teach job entry level skills in plumbing. Topics covered include: basic plumbing-related terms and their meaning as used in the everyday workplace.

IEA 0590 Repair - Drain Cleaning to Remodeling, Part I
This course is designed to teach job entry level skills in plumbing. Topics covered include: repair and replacement of work or broken fixtures and valves. Remodeling and re-pipe procedures will also be covered.

IEA 0591 Repair - Drain Cleaning to Remodeling, Part II
Prerequisite: IEA 0590 or consent of instructor. This course is designed to teach job entry level skills in plumbing and is a continuation of Repair - Drain Cleaning to Remodeling, Part I. Practical problems and solutions will be covered as well as a general course survey segment.

IEA 0592 Advanced Isometric Piping Drawing, Part I
This course is designed to teach job entry level skills in plumbing. Topics covered include: drawing and installing multi-story and multiple commercial systems according to standards set by 10-D-9.

IEA 0593 Advanced Isometric Piping Drawing, Part II
Prerequisite: IEA 0592 or consent of instructor. This course is designed to teach job entry level skills in plumbing and is a continuation of Advanced Isometric Piping Drawing, Part I. SOUTHERN STANDARD PLUMBING CODE requirements will be used as a guideline for this segment of drawing. Like Part I, the more complicated and detailed drawings will be emphasized.

IEA 0594 Plumbing Code SBBSC, Part I
This course is designed to teach job entry level skills in plumbing. Topics covered include: the rules and guidelines of the SOUTHERN STANDARD BUILDING CODE.

IEA 0595 Plumbing Code, SBBSC, Part II
Prerequisite: IEA 0594. This course is designed to teach job entry level skills in plumbing and is a continuation of Plumbing Code SBBSC, Part I. Topics covered include: practical problems and their implications in the code.

IEA 0596 Plumbing Code 10-D-9, Part I
This course is designed to teach job entry level skills in plumbing. Topics covered include: the rules and guidelines of the plumbing code (10-D-9).

IEA 0597 Plumbing Code 10-D-9, Part II
Prerequisite: IEA 0596 or consent of instructor. This course is designed to teach job entry level skills and is a continuation of Plumbing Code 10-D-9, Part I. Topics covered include: practical problems and their implications in the code.

IEA 0598 Advanced Sanitary and Water Supply Systems
This course is designed to teach job entry level skills in plumbing. Topics covered include: designing and installing multi-story, multi-tenant, and large scale commercial buildings according to specifications in 10-D-9.

IEA 0599 Industrial Electricity I
Corequisites: 128 0010. This course-level program provides the student with the related study materials and instruction required to prepare for any of the numerous opportunities in the field of electrical technology. Students will receive a comprehensive foundation in mathematics and measurement skills and in the electrical principles vitally necessary to this trade area.

IEA 0610 Industrial Electricity II
Prerequisite: IEA 0599. Corequisites: 128 0011. This course is a continuation of Industrial Electricity I. Instruction will include building wiring and electrical wiring practices.

IEL 0317 Electric Wiring
This course is designed primarily for apprenticeship instruction and its contents will include the proper procedure to install wiring systems and fixtures in buildings, including laying conduit, installation of switch panels, pulling wire, splicing, testing circuits, wire construction, and performing other curricula and jobs required of an electrician.

INM 0010 Home Management/Personal Safety for the Blind
This course focuses on the various skills needed by blind adults for independent living. In the area of home management, the student will be introduced to the maintenance of a home for the blind, including: budgeting, nutrition, and techniques assisting a blind person to cook safely and efficiently. In the Communication Component, the student may learn Braille, typing, the use of landlining aids designed for the visually impaired and the use of electronic equipment. Personal safety is emphasized in orientation and mobility training which enables a person to move about the environment safely and to master skills necessary for independent travel.

INS 0210 Principles of Insurance
This course is designed to consider insurance as a supplementary course, will seek to develop principles that can be applied by the insurance company's courses and practices. The emphasis of this course will be on the presentation of principles and explanations of practices. Methods of comparing the relative costs of insurance will be presented.
INS 0230 - Investments and Family Financial Management
This course is designed specifically as supplementary training and includes a study of various aspects of investment principles and their application to family financial management. It includes the subjects of yields, limited income securities, growth factors, and analysis of financial statements. Also discussed are family budgeting, property insurance, mutual funds, variable annuities, and aspects of other investment media.

INS 0231 - Pension Planning
This course is designed specifically as supplementary training and includes a study of the basic features of private pension mechanisms, including tax considerations, cost factors, funding instruments, profit-sharing plans, and tax-induced incentives.

INS 0232 - Fundamentals of Life Insurance
This course is designed specifically as supplementary training and includes a study of the nature of modern life insurance, plans for life insurance, the level premium system, terms of the policy, legal aspects of life insurance, death and disability claims, health insurance, accidental insurance, group insurance, and social security.

INS 0233 - Life Insurance Operations
This course is designed specifically as supplementary training and includes a study of the different types of life insurance organizations, home office and field office organization, mortality tables, present value calculation, risk selection, re-insurance, governmental regulation and taxation, investments of life insurance companies, financial statements, and new ideas and planning in the business of life insurance.

INS 0234 - Legal Aspects of Life Insurance
This course is designed specifically as supplementary training and includes a study of the legal aspects of life insurance, such as contract terms, benefits, the rights of the policy owner and beneficiary, and the life insurance contract as an asset.

INS 0235 - Life Insurance Accounting
This course is designed specifically as supplementary training and includes a study of elementary commercial bookkeeping, classifications of transactions, income statements, profit and loss statements, and periodic reports.

INS 0236 - Economics and Investments
This course is designed specifically as supplementary training and includes a study of economics, income and growth, financial organizations, money and banking, income distribution, investment and activity purchasing and performance.

INS 0237 - Mathematics of Life Insurance
This course is designed specifically as supplementary training and includes a study of life insurance mathematics, compound interest, relation of mathematics to annuities, how to calculate premiums, reserves, dividends, and non-forfeiture values.

INS 0238 - Office Administration - Agency and Home Office
This course is designed specifically as supplementary training and includes a study of the business operations of a life insurance company and its more intricate character.

LAE 0310 - Basic Recruiter Training for Police Officers
This basic course is designed specifically to provide job entry training to each officer in specific areas of knowledge and understanding required to satisfactorily perform the duties and responsibilities of a police officer. Specific areas of instruction include constitution and criminal law, criminal evidence, crime organization and prevention, patrol procedures, criminal investigation, police community relations, traffic control, juvenile procedures, civil disorders, first aid, defensive tactics, and firearms training. This course is required of all candidates, regardless of employment with any state law enforcement agency.

LAE 0410 - Specialized Law Enforcement Training
This course is designed to provide specialized training in the field of law enforcement personnel. Specific areas of instruction include investigative techniques, criminal law, constitutional law, police community relations, traffic control, juvenile procedures, civil disorders, first aid, defensive tactics, and firearms training.

LAE 0411 - Basic Evidence Technician Course
This course is designed to provide specialized training in the field of law enforcement personnel. Specific areas of instruction include investigative techniques, criminal law, constitutional law, police community relations, traffic control, juvenile procedures, civil disorders, first aid, defensive tactics, and firearms training.
MAE 0300 Medical Assisting

The medical assistant course of study is an extensive course designed specifically for job entry training and planned to orient the individual to a multitude of basic skills in the physician's office. Examples of these skills are secretarial practices and procedures, examining room techniques, and laboratory procedures. This course requires 1,080 hours, which includes clinical practice in the physician's office. Applicants must be able to type 55 words per minute.

MKS 0030 Correlations in Clinical Laboratory Disciplines

This semester presents for clinical laboratory professionals the clinical aspects of disease, pertinent laboratory data and the use of criteria in interpreting laboratory problems. The primary intent of the course is to expose participants to advances in a multiplicity of laboratory functions and improve their subspecialty skills and expertise.

MMA 0510 Warehouse Management

This course is designed to provide supplementary instruction for persons previously or currently employed in the warehouse management field or shipping and receiving clerks, order clerks, transportation agents, material handlers, forklift operators, order clerks, stockers, and CMI operators. Topics covered will include: warehouse, forklift operation, quality control, materials handling, human relations, packaging, transportation, communications, office and data processing, and security.

MSE 0693 Machine Shop

This course will include shop practice, good workmanship, accuracy and job pride. Students will be given the tools to handle the shop and will use them in the construction of parts, machinery, and other structures.

MSE 0694 Surveyors' Math

This course is designed to teach the students the technical mathematics concepts needed to improve their skill level.

MTE 0036 Marine Technology - Introduction to Marine Technology

This course serves as an introduction to marine technology and includes basic instruction in shipbuilding nomenclature, ship structure, career opportunities, safety, blueprints, and symbols, and mathematics. The major purpose of this course consists of working with the following in the various specialties during which the student receives a combination of classroom and laboratory experience and makes a judgment as to which specialty he/she would like to receive advanced training.

MTE 0038 Marine Technology - Electricity Specialty I

Prerequisite: MTE 0005 or permission of instructor. This course is designed for job entry level training in marine electricity fields and includes instruction in basic DC theory, AC theory, small boat electrical systems and introduces AC and DC motors and generators.
used in the marine industry. This course is a combination of classroom and laboratory experience.

MTE 0629 Marine Technology - Electricity Specialty II
Pre-requisite: MTE 0628. This course is a continuation of Electricity Specialty I. It is designed for job entry level training in the marine electrical field and includes instruction in reading schematic diagrams, use of wiring diagrams, DC and AC circuit operation, troubleshooting and repair of main controls, distribution systems, board mounted ships and marine cables identification. This course is a combination of classroom and laboratory experience.

MTE 0638 Marine Technology - Metal Fabrication Specialty I
Pre-requisite: MTE 0638 or permission of the instructor. This course is designed for the entry level training in marine metal fabrication and includes instruction and development of common scenes, machine and hand bending of metal plates and angles, the fabrication of flanges, the layout and fabrication of air ducts including parallel line development and triangulation. This course consists of classroom and laboratory experience.

MTE 0639 Marine Technology - Metal Fabrication Specialty II
Pre-requisite: MTE 0638. This course is a continuation of Metal Fabrication Specialty I. It is designed for the entry level training in marine metal fabrication and includes instruction in basic tack welding required for fabrication of corrosion resistant fittings, parallel line and radial line development. This course is a combination of classroom and laboratory experience.

MTE 0670 Maintaining and Repairing Fuel Systems in Marine Diesel Engines
Pre-requisite: AEA 0791 or consent of instructor. This course is designed to teach job entry level skills in the maintenance and repair of various fuel injection systems used in marine diesel engines. Topics include components, fuel flow control, injection, fuel pumps, fuel injection, speed control systems and fuel supply pumps. The student will become familiar with various fuel systems and engines in terms of POP, test, and test flow comparison. Special emphasis will be given to safety and manufacturer's instructions and procedures.

MTE 0690 Marine Technology - Welding Specialty I
Pre-requisite: MTE 0690 or permission of the instructor. This course is designed to teach job entry level skills in welding. It includes instruction in shop and welding safety, tool and equipment usage, metal characteristics, steel shapes, electrodes, welding positions, and weld testing. It is a combination of classroom and laboratory experience.

MTE 0691 Marine Technology - Welding Specialty II
Pre-requisite: MTE 0690. This course is a continuation of Welding Specialty I. It is designed to help prepare for job entry into the marine welding field and includes practice in shielded metal-arc welding in the vertical position using B017 and E7018 electrodes in mild steel plate. It will also cover oxyacetylene cutting. This course is a combination of classroom and laboratory experience.

MTE 0860 Adhesives
This course is designed to teach job entry level skills. Topics covered include Clues, Compounds, and Bondings.

MTE 0861 Fastening Materials
This course is designed to teach job entry level skills. Topics covered include Types, Grades, Sizes, and Methods of use.

MTE 0852 Paints and Coatings
This course is designed to teach job entry level skills. Topics covered include Compounds, Oils, Synonyms, and Application Techniques.

MTE 0850 Plans, Tools, Terminology
This course is designed to teach job entry level skills. Topics covered include basic plans, the offset table, lofting, mold costs, power tools, and terminology.

MTE 0857 Wood Materials
This course is designed to teach job entry level skills. Topics covered include Types, Grades, Sizing, and Tooling of Wood Materials.

MTE 0853 Fiberglass Materials
This course is designed to teach job entry level skills. Topics covered include Basics, Clutch Materials, Formulas, and Techniques.

MTE 0855 Fiberglass Boatbuilding
Pre-requisite: MTE 0850, MTE 0857, MTE 0875. This course is designed to teach job entry level skills. Topics covered include Basics, Clutch Materials, Formulas, and Techniques.

MTE 0858 Fiberglass Boat Repair
This course is designed to teach job entry level skills. Topics covered include Materials and Methods and Repair of Fuselage Areas.

MTE 0881 Wooden Boatbuilding
Pre-requisite: MTE 0850, MTE 0852, MTE 0855, MTE 0875. This course is designed to teach job entry level skills. Topics covered include Techniques, and Finishing.

MTE 0882 Wooden Boat Repair
This course is designed to teach job entry level skills. Topics covered include Identification, Maintenance, and Run-up.

MTE 0885 Interior Joinerwork
This course is designed to teach job entry level skills. Topics covered include Fitting, Installation, and Trim Carpentry.

MTE 0884 Exterior Joinerwork
Pre-requisite: MTE 0875, MTE 0870, MTE 0872. This course is designed to teach job entry level skills. Topics covered include Decks, Cabins, Coatings, Backing, and Laminating.

MTE 0850 Welding and Boat Trailer Repair
This course is designed to teach job entry level skills. Topics covered include Introduction to basic welding, oxyacetylene cutting, sandblasting, shop equipment, and facilities. Actual trailer repair and service will be covered.

MTE 0861 Sprinkler System, Commercial and Residential
This course is designed to teach job entry level skills. Topics covered include inspection and testing, maintenance, system requirements, and testing. Actual fire protection will be covered.

MTE 0852 Metal Shapes and Application for Pipefitters
This course is designed to teach job entry level skills. Topics covered include Introduction to commercial requirements, shop equipment, and safety.

MTE 0853 Ferrous and Non-Ferrous Metals, Shapes (Pipefitters/Welders)
This course is designed to teach job entry level skills. Topics covered include Introduction to ferrous and non-ferrous metals, shapes (pipefitters/welders).
cored include; selection of metals by type and for specific design needs.

MTE 0654 Pipe Fitters/Hand Tools, Hand Tools, Power Tools, and Equipment
Prerequisite: MTE 0654. Corequisite: MTE 0654 or consent of instructor. This course is designed to teach job entry level skills. Topics covered include: recognition of safety and use of power tools and hand equipment. Work within setup limits of system,blanking or calculating system safety.

MTE 0655 Measuring Pipe and Layout, Pipelaying
Prerequisite: MTE 0655 or consent of instructor. This course is designed to teach job entry level skills. Topics include recognition of Safety, layout and calculation. Topics covered include: identification, measurement, layout and calculations. Work within setup limits of system,blanking or calculating system safety.

MTE 0656 Pipe Pattern Layout
Prerequisite: MTE 0655 or consent of instructor. This course is designed to teach job entry level skills. Topics included are: layout of welded joints, Y-breaks, M-branches, elbows.

MTE 0657 Blueprint Reading for Pipelaying
This course is designed to teach job entry level skills. Topics included are: Parts of a blueprint, symbols, handling and care of types of blueprinting.

MTE 0658 Fittings and Methods of Fastening
Prerequisite: MTE 0658 or consent of instructor. This course is designed to teach job entry level skills. Topics included are: recognition of fittings and their use in blueprinting.

MTE 0659 Valves and Gages
Prerequisite: MTE 0659 or consent of instructor. This course is designed to teach job entry level skills. Topics included are: recognition of valves and gages by type, size limitations, and proper application.

MTE 0660 Soft Soldering
Prerequisite: MTE 0660 or consent of instructor. This course is designed to teach job entry level skills. Topics include: identification of materials, equipment, and techniques.

MTE 0661 Oil Sketching and Fabrication
Prerequisite: MTE 0661 or consent of instructor. This course is designed to teach job entry level skills. Topics include: recognition of materials, tools, and techniques.

MTE 0662 Pipe Fabrication I
Prerequisite: MTE 0662 or consent of instructor. This course is designed to teach job entry level skills. Topics include: identification of materials, tools, and techniques.

MTE 0663 Pipe Fabrication II
Prerequisite: MTE 0663 or consent of instructor. This course is designed to teach job entry level skills. Topics include: identification of materials, tools, and techniques.

MTE 0664 Hydrostatic Testing
Prerequisite: MTE 0664 or consent of instructor. This course is designed to teach job entry level skills. Topics include: recognition of safety and use of hydrostatic testing equipment. Work within setup limits of system,blanking or calculating system safety.

MTE 0902 EMP Introduction to Metal Work
This course is designed to teach skills for individuals in marine fabrication and repair. It includes instruction in the use of basic tools and equipment in welding, cutting, and shaping metal. The course includes a combination of classroom and laboratory experience.

MTE 0904 EMP Basic Fabrication of Marine Heating and Air-Conditioning Units
This course is designed to teach skills for individuals in marine fabrication and repair. It includes instruction in the use of basic tools and equipment in welding, cutting, and shaping metal. The course includes a combination of classroom and laboratory experience.

MTE 0905 EMP Basic Fabrication Pattern Development for Fabrication of Metal Work
This course is designed to teach skills for individuals in marine fabrication and repair. It includes instruction in the use of basic tools and equipment in welding, cutting, and shaping metal. The course includes a combination of classroom and laboratory experience.

MTE 0906 EMP Basic Fabrication of Marine Heating and Air-Conditioning Units
This course is designed to teach skills for individuals in marine fabrication and repair. It includes instruction in the use of basic tools and equipment in welding, cutting, and shaping metal. The course includes a combination of classroom and laboratory experience.

MTE 0907 EMP Basic Fabrication Pattern Development for Fabrication of Metal Work
This course is designed to teach skills for individuals in marine fabrication and repair. It includes instruction in the use of basic tools and equipment in welding, cutting, and shaping metal. The course includes a combination of classroom and laboratory experience.

MTE 0908 EMP Basic Fabrication Pattern Development for Fabrication of Metal Work
This course is designed to teach skills for individuals in marine fabrication and repair. It includes instruction in the use of basic tools and equipment in welding, cutting, and shaping metal. The course includes a combination of classroom and laboratory experience.

MTE 0909 EMP Basic Fabrication Pattern Development for Fabrication of Metal Work
This course is designed to teach skills for individuals in marine fabrication and repair. It includes instruction in the use of basic tools and equipment in welding, cutting, and shaping metal. The course includes a combination of classroom and laboratory experience.

MTE 0910 EMP Basic Fabrication Pattern Development for Fabrication of Metal Work
This course is designed to teach skills for individuals in marine fabrication and repair. It includes instruction in the use of basic tools and equipment in welding, cutting, and shaping metal. The course includes a combination of classroom and laboratory experience.

MTE 0911 EMP Basic Fabrication Pattern Development for Fabrication of Metal Work
This course is designed to teach skills for individuals in marine fabrication and repair. It includes instruction in the use of basic tools and equipment in welding, cutting, and shaping metal. The course includes a combination of classroom and laboratory experience.

MTE 0912 EMP Basic Fabrication Pattern Development for Fabrication of Metal Work
This course is designed to teach skills for individuals in marine fabrication and repair. It includes instruction in the use of basic tools and equipment in welding, cutting, and shaping metal. The course includes a combination of classroom and laboratory experience.

MTE 0913 EMP Basic Fabrication Pattern Development for Fabrication of Metal Work
This course is designed to teach skills for individuals in marine fabrication and repair. It includes instruction in the use of basic tools and equipment in welding, cutting, and shaping metal. The course includes a combination of classroom and laboratory experience.

MTE 0914 EMP Basic Fabrication Pattern Development for Fabrication of Metal Work
This course is designed to teach skills for individuals in marine fabrication and repair. It includes instruction in the use of basic tools and equipment in welding, cutting, and shaping metal. The course includes a combination of classroom and laboratory experience.

MTE 0915 EMP Basic Fabrication Pattern Development for Fabrication of Metal Work
This course is designed to teach skills for individuals in marine fabrication and repair. It includes instruction in the use of basic tools and equipment in welding, cutting, and shaping metal. The course includes a combination of classroom and laboratory experience.

MTE 0916 EMP Basic Fabrication Pattern Development for Fabrication of Metal Work
This course is designed to teach skills for individuals in marine fabrication and repair. It includes instruction in the use of basic tools and equipment in welding, cutting, and shaping metal. The course includes a combination of classroom and laboratory experience.

MTE 0917 EMP Basic Fabrication Pattern Development for Fabrication of Metal Work
This course is designed to teach skills for individuals in marine fabrication and repair. It includes instruction in the use of basic tools and equipment in welding, cutting, and shaping metal. The course includes a combination of classroom and laboratory experience.

MTE 0918 EMP Basic Fabrication Pattern Development for Fabrication of Metal Work
This course is designed to teach skills for individuals in marine fabrication and repair. It includes instruction in the use of basic tools and equipment in welding, cutting, and shaping metal. The course includes a combination of classroom and laboratory experience.

MTE 0919 EMP Basic Fabrication Pattern Development for Fabrication of Metal Work
This course is designed to teach skills for individuals in marine fabrication and repair. It includes instruction in the use of basic tools and equipment in welding, cutting, and shaping metal. The course includes a combination of classroom and laboratory experience.

MTE 0920 EMP Basic Fabrication Pattern Development for Fabrication of Metal Work
This course is designed to teach skills for individuals in marine fabrication and repair. It includes instruction in the use of basic tools and equipment in welding, cutting, and shaping metal. The course includes a combination of classroom and laboratory experience.

MTE 0921 EMP Basic Fabrication Pattern Development for Fabrication of Metal Work
This course is designed to teach skills for individuals in marine fabrication and repair. It includes instruction in the use of basic tools and equipment in welding, cutting, and shaping metal. The course includes a combination of classroom and laboratory experience.

MTE 0922 EMP Basic Fabrication Pattern Development for Fabrication of Metal Work
This course is designed to teach skills for individuals in marine fabrication and repair. It includes instruction in the use of basic tools and equipment in welding, cutting, and shaping metal. The course includes a combination of classroom and laboratory experience.
MTE 0926 EMP Cable and Equipment Layout and Installation
This course is designed to upgrade skills for individuals in the marine industry and includes instruction in the layout and installation of cable aboard ships. It includes a combination of classroom and laboratory experiences.

MTE 0928 EMP Motors and Generators for Marine Industry
This course is designed to upgrade the skills of those in the marine electricity field and includes instruction in the basic operation and repair of motors and generators used in the marine industry. The course includes a combination of classroom and laboratory experience.

MTE 0930 EMP Shipboard Electrical Systems
This course is designed to upgrade skills for individuals in the marine electrical field and includes instruction in the basic maintenance and repair of electrical systems found on small boats. The course includes a combination of classroom and laboratory experiences.

MTE 0932 EMP Introduction to Marine Electronics
This course is designed to upgrade skills of individuals in marine electronics and includes instruction in theory, measuring devices, radio frequency wave propagation, expectancy, inductance, resistance and impedance. The course includes a combination of classroom and laboratory experience.

MTE 0934 EMP Marine Electronic Functions and Systems
This course is designed to upgrade skills of individuals in marine electronics and includes instruction in amplifier, rectifier, receiver, power supplies, transmitters, antenna systems, and modulation systems. The course includes a combination of classroom and laboratory experience.

MTE 0936 EMP Troubleshooting and Maintenance Procedures in Marine Electronics
This course is designed to upgrade skills of individuals in marine electronics and includes instruction in diagnostic analysis and interpretation, troubleshooting and maintenance procedures.

MTE 0938 EMP Marine Electronic Digital and Computer Fundamentals
This course is designed to upgrade skills of individuals in marine electronics and includes instruction in digital electronic system theory and computer circuits. The course includes a combination of classroom and laboratory experience.

MTE 0940 EMP Operation and Overhaul of Marine Diesel Engines
This course is designed to upgrade skills for individuals in the marine engine field and includes instruction in the theory of operation, disassembly procedures, and overhaul. The course includes a combination of classroom and laboratory experience.

MTE 0942 EMP Tune-Up of Marine Diesel Engines
This course is designed to upgrade skills for individuals in the marine engine field and includes instruction in Detroit, Caterpillar, and Cummins engines. The course includes a combination of classroom and laboratory experience.

MTE 0944 EMP Maintaining and Repairing Fuel Systems in Marine Diesel Engines
This course is designed to upgrade skills for individuals in the marine engine field and includes instruction in the repair of fuel systems in common diesel engines. The course includes a combination of classroom and laboratory experience.

MTE 0946 EMP Troubleshooting Marine Diesel Engine Complaints
This course is designed to upgrade skills for individuals in the marine engine field and includes instruction in the repair and troubleshooting of engine complaints. The course includes a combination of classroom and laboratory experience.

MTE 0948 EMP Marine Outboard Motor Familiarization
This course is designed to upgrade skills for individuals in the marine engine field and includes instruction in the basic and operational performance of outboard motors. The course includes a combination of classroom and laboratory experience.

MTE 0950 EMP Shielded Metal-Arc Welding and Oxygen Cutting Equipment for Marine Welding
This course is designed to upgrade skills for individuals in the marine welding field and includes instruction in shielded metal-arc welding, oxygen cutting, and welding symbols as they relate to the welding and fabrication of structural assemblies.

MTE 0954 EMP Shielded Metal-Arc Welding, Flat Position for Marine Welding
This course is designed to upgrade skills for individuals in the marine welding field and includes instruction in shielded metal-arc welding in the flat position using E6010 and E7018 electrodes on mild steel plate. It will cover oxyacetylene cutting. The course includes a combination of classroom and laboratory experience.

MTE 0956 EMP Oxyacetylene and Air-Arc Cutting and Gouging for Marine Welding
This course is designed to upgrade skills for individuals in the marine welding field and includes instruction in oxyacetylene and air-arc cutting and gouging. The course includes a combination of classroom and laboratory experience.

MTE 0958 EMP Shielded Metal-Arc Welding, Horizontal Position for Marine Welding
This course is designed to upgrade skills for individuals in the marine welding field and includes instruction in shielded metal-arc welding in the horizontal position using E6010 electrodes on mild steel plate. It will also cover oxyacetylene cutting. The course includes a combination of classroom and laboratory experience.

MTE 0960 EMP Shielded Metal-Arc Welding, Vertical Position for Marine Welding
This course is designed to upgrade skills for individuals in the marine welding field and includes instruction in shielded metal-arc welding in the vertical position using E6010 and E7018 electrodes on mild steel plate. It will also cover oxyacetylene cutting. The course includes a combination of classroom and laboratory experience.

MTE 0962 EMP Shielded Metal-Arc Welding, Overhead Position for Marine Welding
This course is designed to upgrade skills for individuals in the marine welding field and includes instruction in shielded metal-arc welding in the overhead position using E6010 and E7018 electrodes on mild steel plate. It will also cover oxyacetylene cutting. The course includes a combination of classroom and laboratory experience.
MTR 0956 EMP Pattern Layout for Marine Pipeliners
This course is designed to upgrade skills for individuals in the piping field and includes instruction in blueprint reading, layout and manufacture of piping branches and, in some cases, elbows. The course includes a combination of classroom lecture and laboratory experience.

MTR 0958 EMP Fittings Used in Marine Piping Systems
This course is designed to upgrade skills for individuals in marine pipeliners and includes instruction in types of pipe, fitting material, and installation of valves and gauges commonly used in piping systems. The course includes a combination of classroom lecture and laboratory experience.

MTR 0970 EMP Basic Valves and Gauges Used in Marine Pipeliners
This course is designed to upgrade skills for individuals in marine pipeliners and provides instruction in the function and installation of valves and gauges commonly used in piping systems. The course includes a combination of classroom lecture and laboratory experience.

MTR 0972 EMP Basic Hosing, Testing and Threading Procedures in Marine Pipeliners
This course is designed to upgrade skills for individuals in marine pipeliners and includes instruction in hydraulic hosing, testing, threading, and pipe threading. The course includes a combination of classroom lecture and laboratory experience.

MTR 0974 EMP Basic Welding and Brazing for Marine Pipeliners
This course is designed to upgrade skills for individuals in marine pipeliners and includes instruction in basic welding and brazing techniques. The course includes a combination of classroom lecture and laboratory experience.

MTR 0982 Preparation for Plate Certification
This course provides upgrading training in the welding field and presents technical information about the preparation required for plate certification using 3/8" mild steel plate. Related information includes equipment operation and weld quality.

MTR 0985 Preparation for Pipe Certification
This course provides upgrading training in the welding field and presents technical information about the preparation required for pipe certification using 6" schedule 40 steel pipe. Related information includes equipment operation and weld quality.

MTR 0101 Oxygen-Acetylene Welding
This course provides upgrading training in the welding field and presents technical information about oxygen-acetylene welding using 6" pipe through 3/16" mild steel, related equipment operation and weld quality.

MTR 0105 Oxygen-Acetylene Brazing and Braze Welding
This course provides upgrading training in the welding field and presents technical information about oxygen-acetylene brazing and braze welding using 6" pipe through 3/16" mild steel, 16 gauge stainless steel, and copper piping and fittings. Related information includes equipment operation and weld quality.

MTR 0122 Basic Gas Metal Arc Welding
This course provides upgrading training in the welding field and presents technical information on the basic gas metal arc welding fundamentals and welding safety. The training develops the manual skill necessary to make high-quality gas metal arc welds in all positions on mild steel from 1/16" to 3/8" plate single pass and multiple pass, using more equipment, and to make high-quality welds on aluminum using argon shielding.

MTR 0123 Gas Metal Arc Welding - Advanced
This course provides upgrading training in welding and presents technical information on welding safety and gas metal arc welding of aluminum, including basic fundamentals, types of equipment and metal transfer.

MTR 0124 Flux Cored Arc Welding
This course provides upgrading training in the welding field and presents thorough technical understanding of the flux cored arc welding process and arc welding safety. Related topics include equipment operation and weld quality.

MTR 0126 Gas Tungsten Arc Welding Basic
This course provides upgrading training in the welding field and presents technical information on gas tungsten arc welding fundamentals and welding safety. The training develops the manual skill necessary to make high-quality gas tungsten arc welds in all positions on 1/8" and 1/4" mild steel, 16 gauge stainless steel, and 11 gauge aluminum, using both direct- and alternating-current equipment.

MTR 0144 Shielded Metal Arc Welding Pipe Downhill
This course provides upgrading training in the welding field and presents thorough technical understanding of shielded metal arc welding pipe downhill fundamentals and welding safety. It maintains basic skill necessary to produce high-quality welds on over 3000 head steel pipe in the 45° and 60° position, using a single-arc electrode and downhill travel.

MTR 0145 Gas Metal Arc Welding Pipe
This course provides upgrading training in the welding field and presents thorough technical understanding of gas metal arc welding fundamentals, preparation for welding pipe, and pipe welding defects. The training develops the manual skill necessary to produce high-quality welds on 6" inch diameter steel pipe in the 45° and 60° position.

MTR 0147 Gas Tungsten Arc Welding (TIG) Pipe and Tubing
This course provides upgrading training in the welding field and presents thorough technical understanding of gas tungsten arc welding fundamentals, preparation and welding pipe and pipe welding defects.

MTR 0964 Gas Metal Arc Welding
Prerequisite: MTR 0044 or consent of instructor. This course is designed to provide entry-level skill necessary to make high-quality gas metal arc welds in all positions on mild steel from 1/16" to 3/8" plate single pass and multiple pass, using more equipment, and to make high-quality welds on aluminum using argon shielding.

MTR 0965 Oxygen-Acetylene Welding and Brazing
Prerequisite: MTR 0045. This course provides job entry level training in the welding field and presents technical information about oxygen-acetylene welding, brazing, and braze welding using 16" pipe through 3/16" mild steel, 16 gauge stainless steel, and copper piping and fittings. Related information includes equipment operation and weld quality.

MTR 0966 Welding Basic
This course is designed to teach entry level skills in fusing metal parts by means of welding and electrical welding apparatus to fabricate metal articles or to repair damaged metal objects. It also includes instruction and training in manual and machine oxyacetylene flame cutting.

MTR 0964 Welding Advanced
Prerequisite: MTR 0046. This course is designed to teach entry level skills in fusing metal parts by means of welding and electrical welding apparatus to fabricate metal articles or to repair damaged metal objects. It also includes instruction and training in manual and machine oxyacetylene flame cutting.
MTR 0065 Shielded Metal Arc Welding Pipe (uphill)
Prerequisite: MTR 0051. This course is designed to teach job entry level skills in pipe welding, equipment, weld quality, pipe procedures, and interpreting and interpreting heat elements. Topics covered include welding skills necessary to make high quality welds on open root, weld metal pipe in the 5G, 6G, and 6G positions and weld steel pipe with backing rings in the 6G position.

MTR 0066 Gas Metal Arc Welding Pipe
Prerequisite: MTR 0065. This course is designed to teach job entry level skills in the welding field. Topics covered include: gas metal arc welding fundamentals, preparation for welding pipe and pipe welding. This course develops the manual skills necessary to produce high quality groove welds on 1 inch diameter steel pipe in the 2G, 5G, and 6G positions.

MTR 0067 Gas Tungsten Arc Welding (TIG) Pipe and Tubing
Prerequisite: MTR 0066. This course is designed to teach job entry level skills in the welding field. Topics covered include: gas tungsten arc welding fundamentals, preparation and welding pipe and pipe welding defects.

MTR 0068 Flux Core Arc Welding Gas Tungsten Arc Welding (Basic)
Prerequisite: MTR 0061. This course is designed to teach job entry level skills in the welding field. Topics covered include: flux core arc welding and arc welding safety. Related topics include equipment operation and weld quality. This course also provides training to develop the manual skills necessary to make high quality gas tungsten arc welds in all positions on 1/16 and 1/8 gauge mild steel, 16 gauge stainless steel and 11 gauge aluminum, using both direct and alternating current.

MTR 0069 Drill Press
This course is designed to teach job entry level skills. Topics covered include: safety, cutting tools, and setup for various materials.

MTR 0070 Shaper Series
This course is designed to teach job entry level skills. Topics covered include: safety, cutting tools, and setup for various materials.

MTR 0071 Lathe Series
This course is designed to teach job entry level skills. Topics covered include: safety, cutting tools, and setup for various materials.

MTR 0072 Industrial Blueprint Reading
This course is designed to teach job entry level skills. Topics covered include: safety, cutting tools, and setup for various materials.

MTR 0073 Basic Numerical Control (NC)
This course is designed to teach job entry level skills. Topics covered include: basic numerical control (CNC) concepts, machine movements, position coordinate systems, programming of feedrate, miscellaneous functions, drilling, milling, and operation of N.C. equipment. Topics include mathematical and programming.

MTR 0074 Advanced Computer Numerical Control (CNC)
Prerequisite: MTR 0073. This course is designed to teach job entry level skills. Topics covered include: machine operation and computer control programming in specification, programming format, tools and methods, tape format, repetitive programming, and software.

MTR 0077 Measuring Tools
This course is designed to teach job entry level skills. Topics covered include: machine measurement in theory and manipulation training in safety, the use of calipers, inside and outside micrometers, English & Metric, inside and outside calipers, telescope gages, combination set, and sliding micrometers. Students are trained to handle bench tools and portable tools for benchmark on the job.

MTR 0078 Vertical Milling
This course is designed to teach job entry level skills. Topics covered include: safety methods and procedures of cutters and end mills that can be used in a vertical milling machine for performing various operations. Covered are the mounting of various cutters, alignment of tool and vise in order to mill a flat surface, parallel and perpendicular surfaces, and machining an angular surface.

MTR 0079 Surface Grinders
This course is designed to teach job entry level skills. Topics covered include: procedures for mounting and removing wheels, dressing and dressing a grinding wheel, grinding of a flat surface, vertical and parallel surface, and grinding of an angular surface.

MTR 0081 Basic Engine Parts/Engine Disassembly/Principles of Power
This course is designed to teach job entry level skills. Topics covered include: engine parts identification, principles of power and engine disassembly.

MTR 0082 Cleaning Engine Parts
This course is designed to teach job entry level skills. Topics covered include: training in cleaning machines, cleaning products and methods of cleaning engine parts, with special emphasis put on safety in the use of the machines and chemicals.

MTR 0083 Precision and Non-Precision Tools for the Automotive Trade
This course is designed to teach job entry level skills in instrumentation used in the remanufacturing of automotive engines.

MTR 0084 Identifying and Repairing Cracks
This course is designed to teach job entry level skills in the identification and repair of cracks in automotive parts.

MTR 0085 Automotive Reconditioning Machines I
This course is designed to teach job entry level skills related to the operation of four machines commonly used in the automotive machine shop: Wire brush grinder, valve seat grinder, valve seat grinder, and the valve lapping machine.

MTR 0086 Automotive Reconditioning Machines II
Prerequisite: MTR 0085. This course is designed to teach job entry level skills and is a continuation of Automotive Reconditioning Machines. Topics covered include the operation of the following four machines commonly used in the automotive machine shop: shaft and end grinder, precision lapping.

MTR 0087 Automotive Reconditioning Machines III
Prerequisite: MTR 0086. This course is designed to teach job entry level skills and is a continuation of
Automotive Reconditioning Machines II. Topics covered include the operation of the following four major machines commonly used in the Automotive Machine Shop: head machining center, flywheel grinder, milling, and brake service center.

MTR 0548 Automotive Reconditioning Machines IV
Prerequisite: MTR 0547 or consent of instructor. This course is designed to teach job entry level skills and is a continuation of Automotive Reconditioning Machines III. Topics covered include the operation of the following four major machines commonly used in the automotive machine shop: crankshaft straightener, crankshaft grinder, still press, and engine lathes.

MTY 0190 EMP Industrial Mechanics
This course is designed to meet the needs of employers and unemployed employees in the industrial mechanics field.

MTY 0195 EMP Hydraulics
This course is designed to meet the needs of employers and unemployed employees in the hydraulics industry.

NCA 0310 Nurse Assistant
This course is designed to prepare a non-professional worker with the necessary skills to perform selected activities under the direct supervision of the registered professional nurse. It requires 240 hours which is taught within an eight-week period.

NU 0512 Nursing Seminar
This seminar is designed to upgrade the skills of the Registered and/or Licensed Practical Nurse. The student will be introduced to current nursing trends and problems and will participate in the development of solutions in conjunction with instructors.

OPT 0301 Word Processing Applications
This course is designed to provide supplemental instruction in the function and use of the personal computer keyboard for the development of documents and spreadsheets. The student will be introduced to generic word processing terminology, basic accounting using spreadsheets, document revisions, merging, and dictionary functions. Basic business English and business document formatting are also included.

PAD 0010 Grant Writing and Management
This course is a workshop/labatory course designed to give participants a comprehensive understanding of the wide variety of funding sources available to community-based private nonprofit organizations, the need for the skills and tools of grant development and management, and actual guided experience in the development of one or more grant proposals.

PFF 0313 Plumbing and Pipefitting
This course is designed primarily for apprenticeship instruction and its contents include training in the assembly and installation of gas, water, and waste disposal systems, including the cutting, threading, and threading of pipe, coupling and mixing joints, and the installation of gas, water and sanitary fixtures and equipment with their supports, hangers, or foundations.

PFP 0490 EMP Plumbing
This course is designed to meet the needs of employers and unemployed employees in the plumbing industry.

PFP 0495 EMP Pipefitting
This course is designed to meet the needs of employers and unemployed employees in the pipefitting industry.

PRN 0310 Practical Nursing
This course is designed to prepare individuals within 12 months to serve in an auxiliary position in hospitals, nursing homes, or homes. A minimum of 1,520 hours is required to complete the program. The program is accredited by the State Board of Education and the Florida State Board of Nursing. Nurses who complete the course are eligible to write the State Board Test Pool Examination to qualify for licensure to practice as a Licensed Practical Nurse and to use the title of LPN.

PRT 0010 Career Exploration and Guidance
This course is designed to assist the individual in exploring career opportunities for either choosing a career or making a career change.

PRT 0015 Career Planning for Handicapped Students
This course is designed to assist handicapped students by enhancing their career planning skills and placement into FCLC courses and/ or competitive employment. The two-week course (45 contact hours) is offered all year. The three phases of the course include: Orientation and Career Exploration, Testing and Placement, and Vocational Activities.

PTY 0312 Photography and Photo-Finishing
This course is designed for persons already employed in the field, or in a related field, for supplementary instruction. The student will receive training in the making of photographic negatives from which prints can be developed, using sliding-type and other cameras and in the washing, drying, retouching, mounting, and finishing of prints. The course is designed to train the photographer in the production of prints for commercial use.

RES 0211 Real Estate Principles and Practice
This course is designed to provide specific information pertaining to real estate, and is intended to orient students to the knowledge and understanding of the legal and ethical principles necessary for the real estate profession. It is not designed to provide the information necessary for the real estate profession to be a real estate practitioner. The course is designed to be taken as a first course in real estate principles and practice.

RMA 0110 Life Agent Qualification Course
This course is designed to help prepare the student for the life insurance exam. The course consists of forty (40) hours of classroom instruction in life insurance, health insurance and annuities. A final examination covering life and health insurance will be given at the end of each course.

RTE 0010 Basic Radiologic Technology
This course is designed to include principles of radiologic technology with particular emphasis on the areas of radiation protection and radiation biologic effects. It is intended for persons who are currently or previously employed as X-ray technicians, subject to new entrance requirements in Chapter 10D-71, Florida Administrative Code.

SAM 0010 Supervisory Training
This course is designed to provide additional instruction for persons already employed in a related field. The course consists of planned learning experiences which include a study of the basic principles of supervision and how to apply these principles in practice. It covers supervision, human relations, job advancement, and the development of other supervisory skills.
SEM 0010 Home Economics Seminar
Home Economics Supplementary Instruction Seminar is a series of seminars designed as supplementary instruction for persons previously and/or currently employed in clothing or textile design or food-related operations which will be offered in response to industry and/or community demand. The time and meeting place of the seminar will vary according to the needs of the participants.

SFO 0210 Basic Security Officers Training Course
This course is designed specifically as supplementary training and covers a variety of areas considered to be directly related to security work. Areas such as firearms, first aid, arrest techniques, and search and seizure are discussed.

SFO 0300 Familiarization with Small Engines
This course is designed to teach job entry level skills. Topics covered include: familiarization with the small engine field, employer relations, special tool applications, precision measuring and practical applications of some electrical equipment.

SFO 0301 Product Familiarization
Prerequisite: SFO 0300 or permission of instructor. This course is designed to teach job entry level skills. Topics covered include product identification using manufacturer's model numbering system, locating and removing various components on both single and multi-cylinder engines and riding mowers. Includes lecture and classroom experience.

SFO 0302 Rider Mower Engine Repair
Prerequisites: SFO 0100, SFO 0301. Laboratory experience or permission of instructor. This course is designed to teach job entry level skills. Topics covered include instruction on the drive system of riding mowers, engine oil, compliance information, and mower battery maintenance. Includes lecture and classroom experience.

SFO 0306 Drive Systems
Prerequisites: SFO 0300, SFO 0301 or permission of instructor. This course is designed to teach job entry level skills. Topics covered include instruction on the drive system of riding mowers, engine oil, compliance information, and mower battery maintenance. Includes lecture and classroom experience.

SFO 0313 Construction of Small Engines
Prerequisite: SFO 0306 or permission of instructor. This course is designed to teach job entry level skills. Topics covered include: necessary training in the assembly of parts of a small gasoline engine, and at the same time, provides technical information on the operation of these small engines.

SFO 0351 Troubleshooting
Prerequisite: SFO 0300. This course is designed to teach job entry level skills. Topics covered include troubleshooting problem areas on actual equipment.

SFO 0381 Ignition - Systems
Prerequisite: SFO 0300. This course is designed to teach job entry level skills. Topics covered include: an investigation of the ignition systems used on small gasoline engines, both classroom lecture and shop experience on single and multi-cylinder engines.

SFO 0385 Fuel Systems - Small Engines
Prerequisite: SFO 0300. This course is designed to teach job entry level skills. Topics covered include: an in-depth study of various small engines fuel systems, including tanks, lines, filters, pumps, carburetors, governors, classroom lecture and shop experience.

SHM 0390 EMP Sheet Metal
This course is designed to meet the needs of employers and underemployed workers in the sheet metal industry.

SLS 0006 Career Planning
This course is designed to assist students in exploring career options and to upgrade their present work status and business ethics. Emphasis will be on developing self-confidence, effective communication skills, life directions and goals. Career, school and work options will be explored.

SLS 0345 Computer-Assisted Career and Job Search Guidance
This course will help students explore career options that can lead to upgrading their present work status. Alternative job opportunities and educational institutions that provide upgrading opportunities in the State of Florida. This course is taught through the use of the CHOICES career guidance computer and will require use of the computer class.

SLS 0356 Job Seeking and Keeping Skills
This course will provide students with an understanding of the world of work and will also provide students with the necessary skills to conduct a job search and to obtain employment that would upgrade their present work status. This course will cover such topics as job market needs, using job sources, applying for jobs, writing a resume, interviewing and how to keep a job once obtained.

SLS 0354 Employability Skill
This course is designed to assist students with an understanding of the world of work and to provide them with the skills necessary to conduct a job search and obtain employment. The course will cover such topics as sources for the job applications, resume writing, interviewing skills, interpersonal relations for keeping the job.

STO 0310 Surgical Technician
This course of study is designed to prepare students in 10 months to function as a member of the surgical team in a hospital operating room under the direct and continuous supervision of qualified professional nurses and surgeons. The course covers the theory and practice in the application of principles underlying the care of patients in the operating room. A certificate will be awarded upon completion of the course. Particular emphasis is placed upon the skills involved in scrubbing and circulating during surgical procedures, and in the preparation and maintenance of sterilized and unsterilized supplies.

SYS 0020 Medical Terminology
Medical Terminology is designed as supplementary instruction for persons already employed in a related field and is a study of the development of a medical vocabulary commonly used in physicians' offices. Terminology is given in a phonetic, semantic and etymological system.

STS 0110 Basic Business shorthand
This course is designed specifically as supplementary training for persons already employed in a related field. It is an introductory course in principles and skills of shorthand designed to meet the minimum standards of performance in shorthand and transcription comparable to those in local business offices.

STS 0112 Intermediate Shorthand and Transcription
This course is designed for persons already employed in a related field, as supplementary instruction. The course will require the student to review the principles of Gregg shorthand, to develop further the student's ability to spell and to punctuate; to develop command of the mechanics of English, to handle the problems of office dictation, and to teach efficient transcription techniques.
STS 0113 Advanced Shorthand and Transcription
This course is designed as supplementary instruction to integrate shorthand, English, and typewriting skills and to develop the student's ability in producing transcripts.

STS 0145 CPS Review Course
This course is designed as supplementary instruction to prepare students to take the examination for Certified Professional Secretaries. A one-semester course, it will cover: Environmental Relationships; Business and Public Policy; Economics of Management, Financial Analysis and the Mathematics of Business, Communications and Decision Making; and Office Procedures. Time sequences for each of the areas will be established as needed within the terms.

STS 0140 Word Processing — Magnetic Typewriter Keyboard
This course includes supplementary instruction in the function and use of the magnetic typewriter keyboard in the development of basic business documents. Students will learn to operate the automated equipment which includes record, playback, correct and revise documents. Instruction in the logging and filing systems for the automated equipment will be included.

STS 0309 Office Occupations I
Pre-requisite: IDS 0040. This course is the first of a three-course sequence designed for job-entry level training in the field of office occupations and includes typewriting, business English, filing, and office procedures.

STS 0310 Office Occupations II
Pre-requisite: STS 0309 or permission of instructor. Corequisite: IDS 0041. This course is the second in a series of three courses designed for job-entry level skills in the area of office occupations and includes typewriting, business English, record keeping, and shorthand.

STS 0311 Office Occupations III
Pre-requisite: STS 0310 or permission of instructor. Co-requisite: IDS 0042. This is the third course in a series of three designed for job-entry level skills in office occupations and includes typewriting, business English, record keeping, machine transcription and business mathematics.

TYG 0110 Basic Typewriting
This course in typewriting for business use is designed specifically as an instructional introductory training to assist persons to acquire mastery of the keyboard and develop the ability to type personal and business letters accurately and in good form.

TYG 0112 Advanced Typewriting
This course is designed as supplementary instruction to develop sufficient skills, techniques, and knowledge in the use of the typewriter for the student to work in a business office in a clerical or stenographic position.

WHI 0300 EMP Welding
This course is designed to meet the needs of employees and under-employed employees in the welding industry.

High School Diploma, GED and Adult Basic Education Courses

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SPA 0002  Spanish II  AIS 0954
STS 0003  Shortterm Personal  AIS 0719
TGY 0102  Typewriting Personal  AIS 0711

Adult Basic Education Course Number Changes

IDS 0001C  Adult Basic Education  ABE 0100

GED Course Number Changes

ENS 0014C  Communication Skills  GED 0302
IDS 0003C  General Education  GED 0200
IDS 0005C  High School Review  GED 0100
IDS 0007E  GED Testing Skills Seminar  GED 0300
MAT 0011C  Mathematics Skills  GED 0301

Continuing Education Course Descriptions

ABE 0100  Adult Basic Education
This course provides instruction in the elementary skills of reading, writing, arithmetic, spelling, social studies, health, science, and art for adults who desire a foundation of study at the secondary level.

AHS 0101  English I  High School Cr. 1
This course provides instruction in English language skills including reading, writing, speaking, and listening in the content area of literature.

AHS 0102  English II  High School Cr. 1
This course provides instruction in English language skills and in the study of world literature. The content includes, but is not limited to, instruction in reading, writing, and critical appreciation of literature.

AHS 0105  English III  High School Cr. 1
This course provides instruction in American literature and in English language skills. It provides a programmed approach to high-level high school grammar and usage, effective sentence structure, capitalization, and punctuation. It is designed to give practice in writing multi-topic papers of various types, including documented papers. Reference and summarizing skills are also covered. Listening, speaking, and writing assignments will be required, when appropriate, in the study of American literature. Literature study includes the analysis of various examples of American literary works in various genres. Vocabulary study involves oral and written exercises using word lists found in standard dictionaries.

AHS 0104  English IV  High School Cr. 1
This course provides high level instruction in English Language Skills. The content includes instruction in vocabulary and reading necessary for students' comprehension of printed materials. Literature study includes representative selections from British Literature. Writing experiences are structured to provide practice in the writing skills necessary for effective communication. Vocabulary study is designed to provide students with opportunities for extending their speaking and listening skills.

AHS 0103  Business English I  High School Cr. 1
This course provides instruction in English Language Arts, with emphasis upon specific language skills as they relate to various occupations. The content includes instruction in personal and business communications, both oral and written; language study will include emphasis upon practical applications of standard English mechanics and usage; vocabulary study will include exercises designed to improve vocabulary knowledge and usage.

AHS 0121  World Literature  High School Cr. 1
This course studies selected works of western and eastern literature from ancient times to the present. The content includes a broad selection of works representing different cultures and historical periods. Emphasis will be placed on understanding the cultural, social, and historical contexts in which these works were created. The course also includes an examination of major literary movements and genres, and an analysis of the impact of these works on modern society.

AHS 0122  American Literature  High School Cr. 1
The purpose of this course is to study selected American literary works of various genres in relationship to the development of the distinctive qualities of the national literature. The content includes instruction aimed at understanding the political, cultural, social, and historical forces which influenced American literature and the development of major literary movements in the literature of the United States. Emphasis is placed on the analysis of major works and their contribution to the development of the American literary tradition. The course also includes an examination of the role of the American literature in contemporary society.

AHS 0123  British Literature  High School Cr. 1
The purpose of this course is to study British literary works of various genres in relationship to the historical and cultural forces which influenced them, and to develop understanding of the major literary movements in the literature. The content includes instruction in the study of major works of poetry, drama, fiction, nonfiction, and criticism. The course also includes an examination of the role of the British literature in contemporary society.

AHS 0150  Functional Basic Skills in Communications  High School Cr. 1
This course provides instruction for students to develop the practical communication skills of students in the field of the practical communications skills of reading and writing as measured by the state-wide student assessment test, part I and part II. The student will learn how to fill out application, prepare a resume, write business and social letters, prepare a bibliography, write and comprehend ads in newspapers, and other important types of writing needed for success in school, on the job and in social life.
AHS 0151 Writing I
High School Cr. 1/2
Prerequisite: AHS 0102 or its equivalent. This course provides an organized study of both sentence and paragraph structure. These are shaped into larger patterns via written assignments which are based upon personal experiences, observations, and literature. Emphasis is placed on form and content as well as manuscript preparation. Other areas of concentration are the following: fiction, coherence and transition, mechanics of grammar and punctuation and spelling. Also included are the skills needed for selecting and limiting a topic, arranging support, outlining, drafting, and revising.

AHS 0152 Writing II
High School Cr. 1/2
Prerequisite: AHS 0151. This course extends the development of skills introduced in Writing I. It focuses on refining exposition and argumentative analysis and persuasion. In addition, some syntax and figurative language are taught. A major emphasis is placed on the skills needed for revision. Personal writing technique continues to be improved through practice of re-seeing, drafting and improved editing.

AHS 0201 General Science
High School Cr. 1
This course provides students with experiences and activities to acquaint the student with the concepts of physical, life and earth science.

AHS 0202 Earth/Space Science
High School Cr. 1
This course provides opportunities for the student to develop concepts basic to the earth, its materials, processes, history and environment in space.

AHS 0203 Environmental Science
High School Cr. 1
This course provides the student with the study of man’s interaction with the environment. The content includes forms of pollution, conservation, environmental planning and policy, public land usages, population dynamics, and major forces of energy.

AHS 0250 Anatomy and Physiology (with Lab)
High School Cr. 1
This course provides students with exploratory activities in the structures and functions of the components of the human body.

AHS 0251 Botany (with Lab)
High School Cr. 1
This course provides students with an in-depth study of the plant kingdom. The content includes but is not limited to, plant cell anatomy and physiology, plant genetics, plant classification and use of taxonomic key, comparative plant anatomy and physiology, plant responses, plant life cycles, ecology, and importance of plants to man.

AHS 0252 Chemistry I
High School Cr. 1
This course covers the areas of elements and compounds, oxygen and hydrogen, water and solutions, carbon and its oxides, and acids, bases and salts.

AHS 0253 Physical Science (with Lab)
High School Cr. 1
This course is designed to acquaint the individual with various aspects of the physical sciences. It includes elements of physics, chemistry, geology, meteorology, technology and other selected physical science topics. A laboratory experience is included.

AHS 0255 Biology I
High School Cr. 1
This course is designed to give students an introduction to the origin, development, structure, function and distribution of living things. An integral and required part of this course will be the laboratory section. This course will provide "hands on" experiences as well as providing activities that will acquaint students with scientific procedure and equipment.

AHS 0401 Fundamental Mathematics II
High School Cr. 1
This course is designed to ensure competency in computation with integers, fractions, and decimals. Practical application of percentage and measurements, including the metric system, is emphasized.

AHS 0302 General Mathematics III
High School Cr. 1
This course is designed to satisfy the needs of individuals whose interests require a knowledge of modern general mathematical skills and concepts.

AHS 0363 Consumer Mathematics
High School Cr. 1
This course is designed to cover the wide range of consumer problems such as banking, insurance, bonds, stocks, home ownership and installment buying. This course also incorporates problems involving propriety rigors, portfolios, sales, discounts, simple interest, compound interest, and financial statements in its content.

AHS 0304 Business Mathematics I
High School Cr. 1
This course is designed to cover problems involving proprietorship, sales, profit and losses, payroll, simple interest and real estate. Problems dealing with integers, fractions and decimals commonly used in business, such as, insurance, bonds, compound interest, and corporation and financial statements are incorporated within the course.

AHS 0520 Pre-Algebra
High School Cr. 1
This course is designed primarily for those who wish to have an orientation to an understanding of the basic concepts and terminology of the new mathematics program being taught in the elementary and junior high schools in Florida.

AHS 0321 Algebra I
High School Cr. 1
This course is designed as an introduction to algebra with emphasis on fundamentals, the solution of equations, and the application of equations to everyday problems.

AHS 0322 Geometry
High School Cr. 1
This course is designed to deal with geometric figures in a plane surface in which construction and deductive reasoning with triangles, perpendicular and parallel lines, polygons and the circles are emphasized. Additionally, special emphasis is placed on congruent triangles.

AHS 0323 Algebra II
High School Cr. 1
This course is designed as a continuation of Algebra I with emphasis on equations, functional equations, quadratic equations, elementary trigonometry, ratio and proportion, and matrices.

AHS 0401 American History
High School Cr. 1
This course is designed to place emphasis on the role of political, economic, and social development of the United States from colonization to the present.

AHS 0402 American Government
High School Cr. 1
This course includes a study of such topics as the constitution, legislative, executive and judicial branches, and functions of national, state and local government; evolution of political parties and interest groups in determining government policy; elections; and citizenship.

AHS 0404 World History
High School Cr. 1
This course examines the political, economic, social, religious, military, dynamic, scientific and cultural events that have affected humanity by covering the chronological development of civilization.

AHS 0405 Economics
High School Cr. 1
This course provides students the opportunity to acquire an understanding of the way in which society organizes its limited resources to satisfy unlimited wants. The student will be introduced to the major characteristics of the mixed market economic system. The major
emphasizes the development of the student's understanding of the world through the development of critical thinking skills necessary to make sound decisions and take positive actions for healthy living.

AHS 0701 Employment Skills High School Cr. 1/2
This course provides students with basic work skills necessary to secure a job, improve personal development, and increase the opportunities for job success.

AHS 0702 Bookkeeping High School Cr. 1
A course designed to teach bookkeeping skills to students at the high school level, preparing them for employment in business and industry.

AHS 0711 Typewriting, Personal High School Cr. 1/2
This course is designed to teach students the fundamentals of typing, including keyboarding, proofreading, and word processing.

AHS 0712 Clerical Typewriting High School Cr. 1/2
This course is designed to provide students with the basic skills necessary for office work, including keyboarding, proofreading, and word processing.

AHS 0713 Short-Hand, Personal High School Cr. 1/2
This course provides students with the skills necessary for taking shorthand notes, including速记, business shorthand, and typewriting.

AHS 0731 Child Development, Guidance and Care High School Cr. 1
A study of the child from prenatal through pre-school age, with emphasis on physical, social, emotional, and mental development. Cultural and environmental influences on the child will also be incorporated into this course.

AHS 0741 Clothing and Textiles High School Cr. 1/2
This course is designed to provide students with an understanding of the principles of clothing construction and materials, and the selection and care of clothing. Students will learn about the selection, use, and care of modern sewing and garment construction.

AHS 0745 Fundamentals of Interior Design Services High School Cr. 1
This course provides an introduction to the field of interior design, including the principles of interior design, materials, and design concepts.

AHS 0761 Drafting, Mechanical High School Cr. 1/2
This course provides an introduction to the principles of drafting, including the use of drafting tools and materials, and the preparation of working drawings.

AHS 0821 Drama I High School Cr. 1
This course provides an introduction to the principles of drama, including acting, playwriting, and directing.

AHS 0841 Chorus I High School Cr. 1
This course introduces students to the principles of choral music, with emphasis on group singing and music theory.

AHS 0911 Advanced Reading High School Cr. 1/2
This course is designed to provide students with an advanced reading course.
to increase reading speed and further improve reading skills and comprehension.

AHS 0943 Creative Writing
High School Cr. 1
This course develops students' writing and language skills needed for individual expression in literary forms. The content includes instruction in the development and practice of writing a variety of literary works.

AHS 0941 World Geography
High School Cr. 1
A general course in geography includes a study of the physical, economic, political, religious, and cultural aspects of important geographic areas and people, and their influence on world conditions and problems.

AHS 0942 Psychology
High School Cr. 1/2
This course is designed to provide students with a variety of perspectives for dealing with and understanding human behavior. The emphasis of the course is on application of psychology to life situations encountered by most individuals.

AHS 0945 Sociology
High School Cr. 1/2
This course includes the study of cultural influence on our society, the family, institutions, and the relationship between the sexes, race and ethnic groups.

AHS 0944 Humanities to 1500
High School Cr. 1/2
The purpose of this course is to examine and respond to creative efforts from early civilization through the 1500s. The content will include, but not be limited to, providing opportunities for students to explore, analyze, synthesize, and respond in a variety of ways to cultural traditions. These ways include viewing, listening, speaking, reading, writing, performing and creating. Students should gain an appreciation for, and an understanding of, themselves and their world through an interdisciplinary approach involving the study of painting, sculpture, architecture, music, dance, drama, history, literature, philosophy, and religion.

AHS 0945 Humanities Since 1500
High School Cr. 1/2
The purpose of this course is to examine and respond to creative efforts from the post-Renaissance through the contemporary period. The content will include, but not be limited to, providing opportunities for students to explore, analyze, synthesize, and respond in a variety of ways to cultural traditions. These ways include viewing, listening, speaking, reading, writing, performing and creating. Students should gain an appreciation for, and an understanding of, themselves and their world through an interdisciplinary approach involving the study of painting, sculpture, architecture, music, dance, drama, history, literature, philosophy, and religion.

AHS 0946 Law Studies
High School Cr. 1/2
The purpose of this course is to acquaint the student with the various phases of law that affect everyday life. Included are topics such as the basis of the legal system, the organization of the legal system, criminal and juvenile justice, consumer law, the civil court and social values and their impact on interpretations of the law, and the judiciary.

AHS 0949 Civics
High School Cr. 1
This course deals with the structure and function of government at the local, state, and national levels. Content includes the American Constitution, Government and the Free Enterprise System.

AHS 0951 French I
High School Cr. 1
This course provides students with beginning skills in listening and speaking, with emphasis on pronunciation of words in introductory French.

AHS 0952 French II
High School Cr. 1
This course is a continuation of AHS 0951. It is adapted to the needs and interests of adults who wish to improve and expand speaking and oral comprehension abilities which were begun in French 1.

AHS 0953 Spanish I
High School Cr. 1
This course provides students with elements of grammar, with conversations and compositions, and reading of Spanish texts.

AHS 0954 Spanish II
High School Cr. 1
This course is a continuation of AHS 0953. It is adapted to the needs and interests of students who wish to improve and expand speaking and oral comprehension abilities which were begun in Spanish 1.

AHS 0955 German I
High School Cr. 1
This course is adapted to the needs and interests of students who wish to acquire a speaking and oral comprehension ability in introductory German.

AHS 0957 Conversational Italian I
High School Cr. 1
This course provides conversational skills in the areas of travel, vocational subjects, and self-enrichment for the student who does not desire a formal knowledge of grammar or literature as taught in the regular program. The emphasis is on oral communication and useful everyday expressions.

AHS 0961 Health I. Personal Health
High School Cr. 1/2
Prerequisite: AHS 0601. This course is a continuation of Health 1. Life Management Skills continue the study of health as it applies to the individual student, their families and the large community in which they live. The course provides students with knowledge and skills necessary for making sound health decisions.

AHS 0962 Personal Fitness
High School Cr. 1/2
The purpose of this course is to provide students with opportunities to develop an individual's optimal level of physical fitness, acquire knowledge of physical fitness concepts, and acquire knowledge of the significance of lifestyle on one's health and fitness. The content should include, but not be limited to, knowledge of psychological values of physical fitness including stress management, knowledge of sound nutritional practices, and knowledge of consumer issues related to physical fitness.

AHS 0971 Introduction to Computer
High School Cr. 1/2
The purpose of this course is to provide an overview of computers in today's world: what they are, what they do, how they work, the hardware involved, the necessary components of an "information system," the need for accuracy and controls, the most common languages, the most common business applications, and an understanding of the basic terminology.

AHS 0972 Computer Applications
High School Cr. 1/2
The purpose of computer applications is to introduce students to the use and uses of microcomputers and to give them an opportunity for as much "hands-on" experience as possible. The content includes, but is not limited to, simple programming and the use of commercially available software.

GED 0100 High School Review
The High School Review (HSR) is an intensive review of the five academic areas of reading, mathematics, science, social studies, and English. The course prepares students for the GED examination to earn a high school equivalency diploma.

GED 0201 General Education
Instruction in general education subjects, including elementary and secondary levels. This offering is designed to accommodate the needs
of a class which consists in part of individuals who are on the high school level.

GED 0300 GED Testing Skills Seminar
This course provides critical, essay-type information about the High School Equivalency Examination. The goal is to familiarize students with the general format of the test and with the types of questions that will be asked. During the course of the seminar, students will be given the GED test materials and practice tests. Students will have an opportunity to discuss any questions they may have about the examination. The course includes a test structure similarly to the GED test.

GED 0901 Mathematics Skills
This course will provide preparatory and remedial mathematics skill assistance to students who have not passed the State Student Assessment Test, Part II (SSAT II).

GED 0902 Communication Skills
This course will provide preparatory and remedial communication skill assistance to students who have not passed the State Student Assessment Test, Part II (SSAT II).

Community紧接着 Instructional Services Courses
The following is a list of courses which are offered to assist citizens in coping with problems related to the areas of environment, health, safety, human relations, government, child rearing and consumer economics.

All of these courses are not offered every term; so interested persons should check the Continuing Education Class Schedule published in the local newspapers a few days before the beginning of each term.

Classes are scheduled in various locations throughout the area including the four PCLJ campuses, community schools and other off-campus centers.

Registration is on a first-come basis.

ART 0010 Fundamentals of Art for Older Adults
This course is designed for senior adults. Instruction will be provided in the fundamentals of art, encompassing composition, harmony, rhythm, balance, emphasis, preparation, line, form, texture, and color. The student may carry on projects using one or more of the following media: charcoal, pastels, pencil, pen and ink, oil, acrylic, watercolors, pastels, or even collage.

ART 0011 Drawing for Older Adults
This course is designed for senior adults. It is an introduction to the basic disciplines of drawing, using charcoal, pencils, pen and ink, crayons, pastels, and colored pencils.

ART 0012 Watercolor, Acrylic, Oil Painting for Older Adults
This course is designed for senior adults. The media used in this course is limited to oil, acrylic, and watercolor. Instruction will be provided in techniques of watercolor, acrylic and oil painting and in color theory. It will be helpful if the student already has some experience using fundamentals of art; however, instruction will include drawing and other basics.

GED 0906 Consumer Education Law
This course is designed to provide low-income residents with basic facts regarding the laws of daily living in a community. It has been organized to interpret these laws in a comprehensive and easily understandable format. It will deal primarily with the laws that govern the lives of low-income and under-educated citizens. The course will assist these citizens in knowing what local help is available to them. This course is also designed to promote positive attitudes toward and involvement in utilization of the American free enterprise system as it deals with land, people, organization, and government.

GEO 0001 Community Emergency Preparation
This course is designed to prepare individuals for rendering essential community services on a voluntary basis in time of serious emergency or disaster.

GEO 0010 Personal Life History Writing
This course is designed for older adults. The students will learn to write their personal life histories through three components: reminiscence, instruction, and preparation of materials. The students will be guided through remembering their past, cataloguing those memories into a filing system, using old photographs, writing the first paragraph, writing one experience, writing expanded stories, compiling a table of contents and index, layout of material, printing preparation, duplication and distribution.

GEO 0002 Personal Money Management
This course is designed to assist adults in handling their day-to-day and long-term financial affairs. Course emphasis is on subjects important in personal money management. Included are budgeting techniques, combating inflation, types of bank accounts, borrowing and use of credit, types of investments, taxation, and retirement and estate planning.

GEO 0003 Home Economics for Senior Adults
This course includes topics which are designed to provide adult adults with instruction that will help them cope with health and economic problems of aging. Instruction will be conducted in one or all of the following areas: Needlework, Basic Clothing Instruction, Advanced Clothing Instruction, Food Preparation, Nutrition.

GEO 0004 Getting It All Together on a Limited Income
This course is designed to assist persons in managing their lives and handling the stress involved in surviving on a very limited income. Practical information and discussion will cover topics such as smart shopping, budgeting, parenting, resolving conflict with neighbors, caring for your body, and launching a plan of action for life improvements.

GEO 0001 Career Assessment and Guidance
An intensive eighty-hour class to aid individuals with immediate need to make a decision about returning to school, work or both. Emphasis will be on developing self respect and confidence, assume communication skills, life direction and goals so that students take responsibility for their lives and assume self-supporting. Resume writing, career fields, job training, job search, and interview techniques will be covered.

EVY 0006 Everything You Want To Know About Solar Energy and More
This course is designed to inform the general public of the development and uses of solar energy to provide insight for the general public to know what is available from solar energy and have a general understanding of the subject.

ESE 0003 Safety Education
This course is designed to cover the principles and information related to individual, home, and public safety.

EVY 0010 Stress Management
This course exposes students of all ages to an understanding and appreciation for the effects of environmental and personal stress. Stress-related disorders, their causes and controls, and numerous stress-management techniques will be discussed from the lay perspective. The primary objective of this course is to enable the students to
assume an active role in the reduction of unnecessary stress and anxiety in their daily lives. An extensive bibliography of suggested readings will be provided.

FAR 0005 Teaching Your Children About Sex
A course designed to enable parents and prospective parents to deal more effectively and honestly with children's questions about their own sexuality.

GRA 0110 Graphic Art for Older Adults
This course is designed for senior adults. It is an introduction into the field of graphics involving various media and forms such as relief and soyograph. Drawing, painting, matting, and framing will be included.

HEN 0002 Personal Safety
This course is designed to provide skills, knowledge, training and information in securing one's personal safety in the home as well as self-defense and street safety.

HEN 0008 Education for Parenthood
A series of classes for expectant mothers and fathers to study perinatal care, parent adjustment, baby needs, physical preparation for pregnancy, labor, and postpartum periods. Expectant mothers must have their doctor's permission to enroll and must be in the last three months of pregnancy.

HEN 0004 Early Pregnancy Preparation Class
This course is designed for mother-to-be in the early months of pregnancy. The course will cover exercises, physical fitness, nutrition, and baby care.

HEN 0005 Education for Parenthood Refresher
This is a four-week course designed for expectant couples who have previously taken the Education for Parenthood course during an earlier pregnancy. It provides a review of the relaxation and breathing techniques to be used during labor and delivery, as well as an introduction to any recent developments in childbirth education.

HEN 0006 Constructing Education for Parenthood
A course designed to help new parents cope with the unexpected problems which arise as a result of a new baby, including child development, sibling problems, illnesses, family adjustments, and baby care. No one particular course of action is recommended, but many opinions are presented to the couples. Open discussion and exchange of ideas is encouraged.

HEN 0007 Creative Activity in the Nursing Home
This course is designed with the needs of nursing home residents in mind. It includes a variety of creative activities which help keep hands, body, and minds alert and active. It will provide instruction in a variety of the following areas: creative writing, drawing, painting, crafts, food preparation, needle skills, health, reality orientation, recreation, and use of leisure time.

HEN 0009 Preparation for Cesarean Childbirth
A series of classes designed to meet the needs of couples anticipating a Cesarean delivery and to promote family-centered Cesarean care. Course material will include discussion of emotional needs, nutrition, anatomy and physiology of pregnancy and the Cesarean birth techniques to use for the birth and after the delivery, and adjustments during the postpartum period.

HEN 0010 Basic Cardiac Life Support
This course is designed to teach one how to apply cardiopulmonary resuscitation. Basic cardiac life support is the new name given cardiopulmonary resuscitation. It is that particular phase of emergen-

HEND 0012 Cardiac Rehabilitation Self Care
This course is designed to educate the individual who has suffered an acute myocardial infarction, post-operative coronary artery bypass, surgery, or who has been determined a high coronary risk. It also provides education for family members and helps improve the quality of life for those involved with the program.

HEN 0014 Physical Management and Stress Alleviation
A therapeutic course designed for use in adult institutions. Its purpose is to instruct students in methods or physical maintenance and stress reduction or alleviations. The course will include instruction in body awareness, fine and gross motor activities, ways of dealing with stressful situations, and practical usage of the various methods taught.

HEN 0015 Taking Care of Your Body
A course which explores matters pertaining to physical and personal well-being. Topics will include consumer health, exercise, nutrition, stress reduction, heart disease, diabetes, careers, contraception, menopause, sleep, diet, the medicine chest, health careers, and cardiological resonance.

HEN 0018 Weight Management
This course is designed to make the student aware of the reasons for overweight and to present methods to resolve weight problems through nutritionally sound diet. This course will help the student to develop better eating habits and a more positive self-concept. It will help the student develop a program for achieving specific goals for particular needs, as well as providing nutritionally sound methods for food preparation.

HEN 0025 How to Stop Smoking in Five Days
This course is designed to demonstrate how an individual smoker can overcome the habit and stop smoking cigarettes by following a self-imposed five-day plan.

HEN 0040 A Growing Problem: Drug Use and Abuse
This course is designed to raise the community's awareness and understanding of the problem of drug abuse. This will be accomplished by providing information concerning the magnitude of the problem of drug abuse, the legal aspects of the problem, and signs and symptoms of the drug abused, as well as the problem of drug abuse in women, youth and senior citizens. Information relative to prevention and treatment of the problem will be included in this course.

HEN 0050 Dynamics of Alcoholism
This course is designed to introduce the student to the problems of alcohol dependency. Topics will include the medical, psychological and social implications of alcoholism. Prevention and treatment issues will be covered. Alcohol dependence among women, the elderly, blacks and adolescents will be examined. The impact of alcoholism on job efficiency and relations with co-workers and others will also be considered.

HEN 0055 Total Wellness: A Holistic Approach to Good Health
This course is designed for senior adults stressing the importance of
In the context of their own health and well-being, the course emphasizes the physical, intellectual, emotional, and social aspects of individuals and preventive techniques. The course aims to instill a sense of responsibility and encourage the development of healthy habits. Participants will also learn about emotional and social issues and preventive techniques that contribute to overall well-being.

**HIS 0013 Crime Prevention**

This course is designed to explore the reduction and prevention of crime in local communities. Attention is placed on each participant's personal problems and concerns related to crime prevention. The program includes the history of crime prevention, components of crime and justice systems, and personal and home security measures such as locks, alarms, lighting, crime against women and the elderly, and community involvement in crime prevention.

**HIS 0014 Women in History**

This course is designed for exploration of the range of experiences, contributions, and powers of women in various cultures from early times through the present. Women's work will be emphasized, especially the pre-Greek period through the Middle Ages, the Industrial Revolution, and 19th and 20th-century developments in European, African, Asian, and American cultures.

**MU 0010 Church Music for Older Adults**

This course is designed for adult singers. Emphasis will be on group singing and performance. Some music theory and music appreciation may be included. Group experience may be useful to individuals as they participate in other community music activities.

**MU 0011 Community Orchestra for Older Adults**

This course is designed for adult musicians. It provides an opportunity for older musicians to practice and perform group instrumental musical activities. It's for anyone who wants to learn to play an instrument as well as people who want to improve their existing instrumental skills. Any instrument is welcome, however, participants must provide their own public performances will be given periodically.

**PFA 0011 Self-Defense for Women**

This course is designed for women who want to learn the art of self-defense. Combative exercises, self-defense, and defensive techniques will be taught. Training and information related to preventative protection activities are included.

**PFA 0012 Playground Supervision**

This course covers the basic instruction and concepts that prepare teachers in early childhood, social, and physical development. It deals with alternative playground supervision of games, sports, and activities and techniques in teaching games and other locomotor activities to preschool and school-age children.

**PH 0001 Attitudes Toward Death**

Death poses questions of utmost significance. Many people feel ill-equipped to face their own death or the death of a loved one. Through the course, participants will learn about death, associated emotions, and the effects of death on individuals and society. The course will cover the various stages of grief and suicide prevention. Group therapy and counseling sessions are designed to help participants cope with their grief and reduce the burden of loss.

**PSY 0006 Psychology of Awareness**

This course is designed for non-majors. It includes exploration, experimentation, and interaction among students to assist participants in a fuller and more meaningful experience of self, others, and environment through heightened self-awareness. Students will participate in role-playing exercises, small-group discussions, and individual therapy sessions to explore their own identity and values.

**PSY 0007 Mental Health First Aid**

This course is designed to teach participants how to identify, understand, and respond to a mental health crisis. Participants will learn how to recognize the signs of mental illness, how to provide initial support, and how to connect individuals to appropriate resources. The course will also cover stress management and coping strategies.

**PSY 0008 Stress Management**

This course is designed to help participants develop strategies for managing stress and improving their mental health. Participants will learn techniques for reducing stress, improving coping skills, and developing a positive outlook on life. The course will cover relaxation techniques, meditation, and other mindfulness practices.

**PSY 0009 Education — A Family Affair**

This course is designed to support parents of school-aged children with appropriate educational resources. Participants will learn about educational strategies, study skills, and classroom management techniques. The course will cover the impact of school on children's development and how to support children's academic success.

**PSY 0010 Divorce: A New Challenge**

This course is designed to help divorced people deal with the challenges of divorce. Participants will learn coping strategies, communication skills, and ways to maintain a healthy relationship with their children. The course will cover the impact of divorce on children and how to support their emotional needs.

**PSY 0011 Assessing Communication Training**

This course is designed to help participants develop effective communication skills. Participants will learn how to identify and express emotions, how to listen actively, and how to communicate effectively in both personal and professional settings. The course will cover the impact of communication on relationships and how to improve communication skills.

**PSY 0012 Pre-Release Program for the Incarcerated**

This pre-release program is designed to prepare inmates for successful reintegration into society. Participants will learn job skills, communication skills, and strategies for successfully transitioning back into the community. The program will cover the impact of incarceration on individuals and how to support their successful reintegration.

**PSY 0013 Single Parenting — Becoming a New Kind of Family**

This course is designed to support single parents in raising children alone. Participants will learn how to manage daily activities, establish effective discipline, and develop positive relationships with their children. The course will cover the impact of single parenthood on children and how to support their emotional needs.

**PSY 0014 Survival: Coping with Separation and Divorce**

This course is designed to help participants cope with separation and divorce. Participants will learn coping strategies, communication skills, and ways to support themselves and their children. The course will cover the impact of separation and divorce on children and how to support their emotional needs.

**PSY 0015 Understanding Your Child**

This course is designed to help parents navigate the challenges of raising children. Participants will learn how to build strong relationships, communicate effectively, and support their children's emotional needs. The course will cover the impact of parenting on children and how to support their success.
potential. Topics to be covered include the child’s stages of growth and development, parent-child communication, discipline, helping your child learn.

SOP 0005 Education for the Aging

Courses are offered under this title which are designed to provide middle-aged and older adults with information that will help them cope with the problems of aging. Information on pre-retirement planning, the psychological aspects of aging, the role of the aged in the modern world, and courses dealing with health, housing, financial planning, and the use of leisure time will be explored. Implications of current social, scientific, economic, and political developments on the older citizen are studied.

SOP 0007 Interpersonal Relations for the Handicapped

This course is designed to teach the handicapped person appropriate social and sexual behavior for everyday living in our society. The students will receive instruction in etiquette, hygiene, social roles and relationships, authoritative relationships, and dating, ramifications and implications.

SOP 0009 Parents of the Handicapped

This course is designed to provide parents with information beneficial to them in raising their handicapped child. Some of the topics to be discussed will be attitudes, behavior problems, reality therapy, legal responsibilities, and rights, appropriate social activities and behavior, marriage and other education skills.

SOP 0010 Life Planning

This course is designed to provide the basic facts for understanding money from a simple available budget through the potential for aggressive investments. Information will be made available by presenting everyday life occurrences including such topics as the meaning of joint ownership to a wife as well as her spouse; what “gaps” are receivable and when and how to choose a safe but profitable investment; large or small. Other topics to be introduced will include banking, establishing credit, taxes, investment buying, insurance, real estate, wills and trusts.

SOP 0015 Human Sexuality

This course is comprised of a series of classes for individuals interested in the field of human sexuality education. Information and learning exercises will enable participants to clarify their own personal feelings and values regarding sexuality and become more knowledgeable of psychological, sociological and biological contributions in the field of human sexuality.

SOP 0020 Public Forum

The public forum will provide an opportunity for interested citizens to hear specialists speak on pending community problems and to have the opportunity of expressing themselves concerning these problems.

SOP 0025 Opening Doors For The Widowed

Course discussions deal with specific topics to help the widowed cope with the enormity of widowhood and readjustment to grief and other emotions, choosing a vacation or relocation, returning to school or job training and building a new social network. Although any widowed person is eligible to enroll, those widowed within the past few years will find it most helpful. Instructions are widowed or those who have been widowed.

SOP 0001 Human Relations

A drawn-from-world of modern concepts in human relations including education of time, motivation, communication, race relations, and emotional stability to instill positive attitudes about living and working together.

SOP 0002 Leadership Training

This course is designed to develop skills in group or community leadership. It covers techniques of group work and group dynamics, effective speaking, and how to conduct a meeting.

SOP 0003 Parliamentary Procedure

This course includes study and practice of the principles and rules governing deliberative assembles. It is designed to benefit the present, officer, and member alike in participation in local government, communication with public officials, and ensuring each individual's rights.

Recreational Courses

Florida Community College at Jacksonville offers Recreational Courses on request from the community. These courses are supported by fees paid by the participants and are not funded by the state. The fee structure for these courses is calculated to cover the direct instructional costs of offering the course to the community. The list of available courses is included here.

AAG 0810 Personal Income Tax Seminar
AIG 0813 Aviation Ground School-Private Pilot
AIG 0814 Aviation Ground School-Instrument Rating
APD 0810 Chinese Painting
APD 0811 Ceramics I
APD 0812 Ceramics II
APD 0815 Pottery
ART 0816 Arts and Crafts
ART 0817 Drawing
ART 0818 Watercolor Painting
ART 0819 Painting, Natureism to Abstract
ART 0821 Soldering
ART 0823 Metal Sculpture
ART 0824 Mosaic I
ART 0825 Mosaic II
ART 0826 Creative Art for Children
ART 0827 Soldered Glass Window Construction
ART 0829 Create a Cartoon
BCN 0802 Before You Build
BCN 0803 Remodeling
BCN 0810 House Building
BIO 0810 Genealogy - Discovering Your Family Heritage
BCN 0810 TV Communications
CCL 0810 Introduction to Nutrition
CFT 0811 Sewing for Seniors
CLT 0813 Creative Needlecraft
CLT 0815 Basic Sewing
CFT 0816 Advanced Sewing
CLT 0817 Beginning Crewel Embroidery
CLT 0818 Intermediate Embroidery
CLT 0819 Patchwork Quilting
CLT 0820 Rug Hooking
CLT 0821 Rug and Wall Hangings
CLT 0822 Weaving
CLT 0823 Creative Woodworking
CLT 0824 Creative Ceramics
CLT 0825 Creative in Fabrication
CMP 0811 Boutique Sewing
CSE 0810 How to Buy and Sell Your House
CSE 0821 How to Reduce Costs Around the Home
CSE 0822 How to Wire Your House
CSE 0815 Interviewing: Basic Techniques
CSE 0814 Memory and Concentration
CSE 0816 Know Your Car
DRA 0810 Acting for Fun and Self-Expression
DRA 0811 Art of the Amateur Magician
DRA 0812 Introduction to Theatre for Children
ENG 0811 Letter Writing
ENR 0810 Motorcycle Care and Repair
ENR 0815 How To Service Your Small Engines
FMT 0810 Modeling I
FMT 0811 Modeling II
FON 0001 Food for You
FON 0005 Health and Weight Control
FON 0101 Gourmet Foods
FON 0103 Microwave Cooking
FON 0105 Elegant Entertaining
FON 0810 Adventures in Dining
FON 0811 Oceanology: The Study of Water
FON 0812 Eat Smart
FSM 0810 Cake Decorating
GRA 0810 Graphoanalysis (Handwriting Analysis)
GRA 0811 Calligraphy
HBE 0803 Flower Arranging
HBE 0810 Upholstery
HEA 0810 Yoga
HOM 0002 Clothing Selection
HRT 0810 Basic Home Building
HUM 0810 Travel: Mainly Europe
HUM 0811 Introduction to Antiquities
JEW 0810 Jewelry Making
LEI 0810 Fine Art Enrichment: Summer Program
LIS 0810 Reading for Leisure
LIT 0810 Bank Review
LIT 0812 Women in Literature
LIT 0814 The Southern Literary Renaissance
LTW 0810 Sandal Making and Leather Construction
MET 0810 Meteorology for Airman and Boater
MUS 0810 Singing For Pleasure
MUS 0811 Piano Lab: Beginning
MUS 0812 Beginning Gutter
MUS 0813 Community Jazz Lab
MUS 0814 Music Readiness I
MUS 0815 Music Readiness II
MUS 0816 Applied Music I
MUS 0817 Applied Music II
MUS 0819 Applied Music III
MUS 0820 Musicianship Class
MUS 0821 Group Music Instruction
MUS 0822 Music Seminar
OCE 0810 Secrets of the Sea
ORH 0810 Raising Indoor Plants
ORH 0811 Home Landscape Design
ORH 0812 Ornamental Horticulture
PEA 0810 Modern Jazz Dance I
PEA 0811 Modern Jazz Dance II
PEA 0812 Hawaiian Dance
PEA 0813 Ballet
PEA 0814 Ballroom Dancing
PEA 0815 Square Dancing
PEA 0817 Judo
PEA 0818 Beginning Swimming
PEA 0819 Competitive Swimming I
PEA 0820 Competitive Swimming II
PEA 0821 Swimming
PEA 0822 Exercise and Competitive Play
PEA 0823 Gymnastics I
PEA 0824 Gymnastics II
PEA 0826 Understanding Football
PEA 0827 Bowling
PEA 0828 Soccer
PEA 0829 Volleyball
PIA 0830 Belly Dancing
PEA 0831 Modern Dance
PEA 0832 Karate for Beginners
PEA 0833 Swimming and Lifesaving
PEA 0834 Tennis
PEA 0835 Fundamentals of Dance
PEA 0840 Acrobatic Dance
PED 0810 Introduction to Bridge
PFL 0810 Sports Officializing
PFL 0811 Tournament Chess
PHI 0810 Get Control of Your Time and Life
PHI 0811 Meditation
PHI 0812 Astrology
PHI 0814 Transcendental Meditation
PHI 0815 Zen Buddhism
PHI 0816 Zen Buddhism
PHI 0816 Zen Buddhism
PHI 0818 Religious Education
PSY 0812 Psychology of Emotions
PSY 0813 Psychology of Emotions
PSY 0814 Sex and the Single Person
PSY 0815 Introduction to Hypnosis
PSY 0821 Parapsychology I
PSY 0822 Parapsychology II
PTY 0810 Field Experience in Photography
PTY 0811 Photography I
PTY 0812 Photography II
PTY 0813 Photo Printing Black and White I
PTY 0814 Photo Printing Black and White II
REL 0810 Congregationalism
SEM 0800 Avocation and Recreational Seminar/Workshop
SPE 0810 How to Speak Successfully Before a Group